

NEW MEXICO

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Albuquerque Journal

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Los Alamos Seeks Weapon-Building Capability

By John Fleck

JOURNAL STAFF WRITER

Los Alamos National Laboratory, long a designer of nuclear weapons, plans to add the capability by 1997 to build them, according to internal laboratory documents made public this week by a Santa Fe peace group.

The documents, including a Jan. 22 copy of the laboratory's internal "Strategic Plan," lay out a detailed plan for turning Los Alamos into what lab Director Sig Hecker described last year as "a full-service lab."

Los Alamos has long built specialized nuclear explosives for underground tests conducted in Nevada. Now, according to the Strategic Plan, Los Alamos wants to develop a top-to-bottom capability to build all the key parts for war-ready nuclear bombs.

The Los Alamos Study Group, the Santa Fe-based peace group that released the plan, complained the document is at odds

'97 Target Date Revealed in Laboratory Documents

with Los Alamos officials' public statements that the lab doesn't want to get into the bomb-building business.

"They may not want to do it, but they're very happy to accept the money that will put them in a position to do it," said Greg Mello, one of the group's leaders.

Laboratory public affairs director Scott Duncan issued a statement Tuesday complaining about the release of what he called an "internal" document. He declined further comment.

The plan comes as some of the nation's existing nuclear weapons factories, such as the Rocky Flats Plant outside Denver, are being closed because of safety and environmental problems.

The Strategic Plan outlines steps necessary to give Los Alamos the capability, by 1997, to build stockpile bomb parts out of plutonium, uranium and lithium — key

components ensuring a bomb's nuclear blast.

Whether the lab would actually build bombs is an open question.

The nation isn't building any new nuclear weapons now, and John Immele, head of Los Alamos' nuclear weapons program, told congressional staff members Jan. 12 that it will be 15 years before bomb manufacturing resumes.

By then, according to current government policy, a new nuclear weapons factory will be completed somewhere in the country. But that plan has its critics, who say Congress is unlikely to fund the multibillion-dollar cost of the new plant.

That, and Los Alamos' capabilities, will create pressure to do the work at the New Mexico lab, said Tom Zamora-Collina, an author and nuclear weapons analyst at the environmental group Friends of the Earth in Washington, D.C.

It is a fact the laboratory acknowledges. "Pressure for the Laboratory to take on additional ... manufacturing ... responsibilities will increase," the Strategic Plan states.

The Strategic Plan variously refers to its new manufacturing capability as the ability to build "prototype" nuclear weapons and the ability to provide "contingency" weapons production capability.

But with so few new nuclear weapons needed for the foreseeable future, the distinction between building a few "prototypes" and building bombs for the U.S. arsenal is fast disappearing, said Zamora-Collina.

Zamora-Collina said Los Alamos is borrowing a page from the book of defense planners who advocate "prototyping" — building a small number of a new high-tech weapon, even if unneeded, to maintain production capability.

The laboratory plan refers to that concept as "deterrence through capability" rather than "deterrence through targeting."

A key goal, the plan says, is to maintain the expertise at Los Alamos to "underpin the nation's ability to maintain a safe and reliable stockpile as well as to modify or produce any weapons that may be required as dictated by future national security requirements and policy."

Laboratory director Hecker released a summary version of the Strategic Plan at a news conference Jan. 22. The summary, which describes Los Alamos' efforts to expand non-military work, makes no mention of the laboratory's hope to add production capabilities.

Pressed by reporters that day on the possibility of Los Alamos taking up production work, Hecker said the lab wanted to "keep alive manufacturing technologies," but added that production of actual war weapons wouldn't be an issue any time soon.

Lab has a secret agenda, watchdogs say

■ Los Alamos isn't telling the whole truth about its post-Cold-War plan, they say.

By **LAWRENCE SPOHN**

Staff reporter

Los Alamos National Laboratory might not be designing new nuclear weapons, but it has designs on being the nation's nuclear weapons leader, according to the lab's internal plan.

The Los Alamos Study Group, a privately funded lab watchdog based in Santa Fe, today released copies of the lab's 120-page internal Strategic Plan.

It described the plan as "startling" because it shows the lab's intent to become "the prime

steward for the nation's stockpile."

The study group contends that the lab isn't playing straight with the public by trying to emphasize the lab's refocusing on civilian research and development.

Actually, the lab wants "to consolidate a wide array of nuclear weapons activities at Los Alamos" but is not making those details part of its public statements, the group said.

"There is a tremendous difference between what LANL emphasizes publicly and what is written in this document," said Greg Mello, a physicist and researcher for the study group.

"The lab has as yet made little change from Cold War priorities, and is promoting an expanding nuclear weapons mission for itself."

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He cited numerous references in the lab plan that call for building demonstration facilities that "will give LANL the ability to manufacture complete nuclear weapons as desired."

Mello criticized these proposals not only because they represent "unending nuclear weapon research, development and testing," but also because they "have serious negative implications for New Mexico's environment — and potentially its economy as well."

Los Alamos Director of Public Affairs Scott Duncan issued a one-page prepared statement on Tuesday that stated the Strategic Plan is "proprietary information" and was "designated for internal use only."

Efforts to reach appropriate laboratory officials through Duncan's office were rebuffed.

Lab officials, however, have denied they are seeking to relocate Department of Energy weapon production component

facilities to Los Alamos.

As recently as last month Director Sig Hecker said weapons production is not the crucial issue now.

Instead, the concerns have shifted to the safe dismantling of thousands of decommissioned warheads and the safe storage of abundant nuclear materials such as weapons-grade plutonium and highly enriched uranium.

Generally, officials have said the lab is shifting from designing new weapons to making existing weapons safer. It also is trying to expand its civilian research base, which Hecker says has been growing slightly over the last five years.

John Immele, who directs the lab's nuclear weapons programs, has said that it makes sense for LANL to become the primary steward of the nation's nuclear weapon stockpile because the bulk of the weapons that will remain were made or designed in Los Alamos.

In a recent news briefing on an 18-page excerpted summary of the Strategic Plan, Hecker ac-

knowledged that so far only about 4 percent of the lab's budget is going for civilian research and technology transfer efforts.

He said the lab's target this decade is boosting that percentage to between 10 percent and 20 percent, also the stated goal of President Clinton.

Hecker also pointed out that much of the growth in the lab's nuclear weapons program actually is going to non-design areas, including environmental restoration activities. These will receive some \$202 million this year out of the lab's \$1.1 billion budget.

*Albuquerque
Tribune
2/10/93*

Reporter 2/10/93

LANL Busy Stopping Up Irkome Leaks

Los Alamos National Laboratory has been through a month of embarrassing leaks.

Last week, lab officials acknowledged that a nuclear reactor had been leaking radioactive water since mid-January. And

most recently, on Tuesday, they were forced to downplay a leak of their sensitive "Strategic Plan" to a citizens' watchdog group.

According to Greg Mello, spokesman for the Los Alamos Study Group, the 120-page document was obtained from an anonymous source. Intended for laboratory managers only, it outlines a broad strategy for guiding the lab through the unsure post-Cold War period in which the lab's primary mission of nuclear weapons research is being challenged.

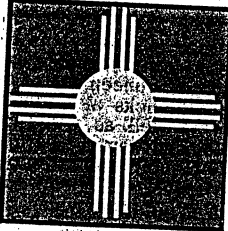
Until this week, lab officials publicly had stressed those parts of the strategy related to the conversion to civilian research. But Mello said details of the plan show the lab is "hedging its bets" and preparing for expanded nuclear activity more than previously believed.

Most worrisome, he said, is the written goal for the lab to become "the prime [Department of Energy] steward for the nation's stockpile" of nuclear weapons. That expanded role would mean new weapons manufacturing at the lab, requiring processing and storage of more dangerous materials like plutonium and tritium than have been used there in the past, Mello said.

Meanwhile, lab officials were mostly mum Tuesday. Director of Public Affairs Scott Duncan released a printed statement calling the document "proprietary information" that competing labs might use against Los Alamos in the fight for lucrative government programs.

"We believe we have the right, if not the obligation, to discuss with our employees certain issues bearing upon their future before they read or hear about it in the news media," the statement said. "Consequently, we have nothing further to say publicly regarding the Los Alamos Strategic Plan."

—M.E. Sprengelmeyer



THE SANTA FE NEW MEXICAN

Group says lab plans to build weapons

By KEITH EASTHOUSE
The New Mexican

Los Alamos National Laboratory is preparing to transform itself into a facility that would build nuclear weapons, leaders of a Santa Fe environmental group said Tuesday.

Historically, the laboratory has limited itself mostly to designing and testing nuclear weapons, a job that requires much less plutonium than building bombs.

Lab officials have repeatedly said

they do not want the laboratory to become a bomb production or plutonium processing facility because of the worker safety and environmental hazards that would be involved.

However, lab director Sig Hecker said at a press conference last month that the distinction between a research facility and a production facility is not as sharp as it once was because future nuclear weapons production needs are likely to be much smaller than during the Cold War — and could be non-existent.

The Los Alamos Study Group is bas-

ing its charge that the lab will build weapons on a 120-page internal laboratory document called The Strategic Plan, a shorter version of which was presented to the media by Hecker in January.

That version stressed that the laboratory is shifting from weapons design work to a caretaker role in which the lab will focus its efforts on ensuring the safety and reliability of the remaining weapons stockpile.

The more detailed version, which was intended for internal lab use only, was obtained by the study group.

Scott Duncan, director of public affairs at the lab, said the lab would not respond to the study group's claims.

"We believe we have the right, if not the obligation, to discuss with our employees certain issues bearing upon their future before they read or hear about it in the news media," Duncan said. "Consequently, we have nothing further to say publicly regarding the Los Alamos Strategic Plan."

The document, which was provided to the media by the study group, describes plans to:

- Upgrade the laboratory's ability to

build prototypes of plutonium pits, the radioactive metal spheres at the heart of nuclear weapons, by 1994.

- Install by 1997 machining capabilities in two facilities that would allow uranium components used in nuclear weapons to be fabricated.

- Design and install another facility for fabricating additional nuclear weapons components, also by 1997.

- Complete an upgrade of Technical Area 16, the Weapons Engineering Tritium Facility, to accommodate both re-

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search and development work involving tritium and "contingency fill activities" by 1998.

■ Have in place research and development and manufacturing programs involving non-nuclear weapons components used in nuclear bombs by 1997.

Some of the plans already have been made public.

For example, in December the Energy Department announced that in response to the vanishing need for nuclear weapons, Los Alamos and Sandia National Laboratories in Albuquerque would manufacture

mean filling a nuclear weapon with tritium, an activity he said would constitute production work.

He pointed out that most of the planned upgrades and constructions are not scheduled for completion until the mid to late 1990s, after a congressional ban on underground nuclear testing goes into effect.

Since testing is considered crucial for research and design work, Mello said that the completion dates indicate that the work that will be done will be production work.

Mello said that a part of the

Some people, including DOE critics, have suggested that weapons development and production work could be consolidated at Los Alamos, where the lab could remanufacture plutonium pits in a small, stable arsenal as the need arises.

some of the non-nuclear parts they had only made prototypes of in the past.

Additionally, in the past year there have been indications that nuclear weapons production work formerly done at the DOE's Rocky Flats plant near Denver may be temporarily transferred to Los Alamos until a permanent production facility can be built.

The Rocky Flats plant is closed due to environmental, health and safety problems.

Some people, including DOE critics, have suggested that weapons development and production work could be consolidated at Los Alamos, where the lab could remanufacture plutonium pits in a small, stable arsenal as the need arises.

The lab already has the capability to build plutonium pits. It also has plutonium handling, processing and storage capabilities.

Greg Mello, of the study group called the strategic plan "a detailed plan to develop the capability to make nuclear weapons in Los Alamos."

He said the phrase "contingency fill activities" could

plan which lists various future construction projects in the lab's nuclear weapons program demonstrates that the lab is not turning away from nuclear weapons work.

"Most of the construction projects called for in the plan serve LANL's military, rather than civilian, research and development (needs)," Mello said.

Duncan said one reason the lab refused to respond to the study group's claims is that the document contains information that could be used by the lab's competitors.

"We view this as proprietary information that could be useful to the laboratory's competitors for particular programs and funding, or could be used by potential Los Alamos contractors to gain an unfair advantage," Duncan said.

Mello said that proprietary information — as a reason not to make something public — would be legitimate if the lab was a private business instead of a government agency.

He said that "volunteering Northern New Mexico to be host to these kinds of things should be publicly discussed."

3 LANL employees contaminated on job

By KEITH EASTHOUSE
The New Mexican

Three workers at Los Alamos National Laboratory were contaminated with radioactivity in two separate incidents last week at Technical Area 55, the laboratory's top-secret plutonium research complex.

Low levels of radioactivity were detected in the nasal passages of all three workers, according to Department of Energy reports of the incidents obtained by *The New Mexican*.

The report did not specify what type of radioactive substance was involved. Lab spokesman Jim Danneskiold declined to disclose the nature of the material.

Danneskiold said the only way the workers could have been placed in danger is if the contamination had entered their lungs. He said tests performed on the workers' after the contamination incidents found no evidence that had happened.

"There was no uptake," Danneskiold said.

The contaminant may have been plutonium, a radioactive metal used in nuclear bombs, which is the main radioactive material handled at TA-55.

Plutonium is most dangerous when inhaled into the lungs. Extremely small quantities of plutonium have been linked with lung cancer.

The contamination incidents came about two weeks after two other workers at TA-55 were contaminated with plutonium while cleaning up after an experiment in the facility's plutonium processing area.

Plutonium was detected in those workers' nostrils, but the levels of radioactivity involved in that case were significantly higher than in the latest incidents, Danneskiold

said. Radioactivity was not detected in the lungs of those workers either, he said.

"I would characterize that as a serious contamination incident," Danneskiold said.

He said that the more recent incidents were not as severe.

The incidents last week occurred Feb. 1.

In one of the incidents, two of the workers were contaminated after they had unwrapped a package containing nuclear materials, according to the report.

The workers followed proper procedures and were wearing protective equipment, Danneskiold said. The problem, he said, was that the materials, packaged several years ago, were not wrapped as safely as they would be by today's standards.

"They were packed in conformance to the standards that were in existence then," Danneskiold said.

In addition to the contamination in their nasal passages, the workers received contamination on their protective equipment, the report said. Radioactivity was also detected on the arms and neck of one of the workers, according to the report.

In the other incident, a technician was contaminated because a radioactive handling device that the worker was using called a glove box had a hole in the glove, according to the report.

Radioactivity was detected on the technician's forehead and left calf, probably because the worker touched those places after removing the contaminated hand from the glove box, Danneskiold said.

The workers' health will be monitored, he said.

Contamination incidents described as "serious" by

Opinions

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Thursday, February 11, 1993

Editorials

Time to talk

Los Alamos National Laboratory officials are so darned slick. Witness the recent release of a much more detailed Strategic Plan than the streamlined version released earlier by the lab.

The detailed version, which came into the hands of the Los Alamos Study Group in Santa Fe, apparently outlines lab plans to transform LANL into a facility that could build nuclear weapons.

Lab officials wouldn't comment on the allegations by the Los Alamos Study Group, stating, instead, that, "We believe we have the right, if not the obligation, to discuss with our employees certain issues bearing upon their future before they read or hear about it in the news media."

When — exactly — was this discussion going to take place?

Top dogs at the lab wanted it both ways, apparently. They wanted to play up in public their plans to convert to peaceful work by taking up the challenge of industrial competitiveness, while downplaying nuclear weapons plans.

Why release a deficient summary of "The Strategic Plan"? Why not start a dialogue with lab employees and the community on the new directions for the laboratory?

It's been clear for quite some time that powerful interests hope to to convert the laboratory into a nuclear weapons complex. Is this the route laboratory officials have chosen to follow?

In short, the release of the fuller Strategic Plan was a public service by the Los Alamos Study Group.

The lab's response was a return to the old days: "Tell 'em only what they need to know."

Too bad.

Los Alamos Monitor

DIGEST

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without details, Duncan said. "We believe we have the right, if not the obligation, to discuss with our employees certain issues bearing upon their future before they read or hear about it in the news media," Duncan said. "Consequently, we have nothing further to say publicly regarding the Strategic Plan."

Monitor 2/11/93

Lab declines comment on plan

Scott Duncan, director of Los Alamos National Laboratory's Public Affairs Division, said in a statement Tuesday that the lab won't release the full version of the lab's Strategic Plan.

The content of the plan was the subject in news stories all over North America New Mexico Wednesday when the Los Alamos Study Group said the plan revealed that LANL was preparing to have the capacity to produce nuclear weapons.

"We view this (Strategic Plan) as proprietary information that could be useful to the laboratory's competitors for particular programs and funding, or could be used by potential Los Alamos contractors to gain an unfair advantage," Duncan said.

Specifically, the full version of the plan contains information on unresolved issues, strategies, assumptions, timelines, budget profiles, and managers responsible for specific tasks," Duncan said.

To keep the public informed, the lab released a summary version

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Los Alamos Can Supply All N-Bombs

Lab's Annual Plutonium Capacity May Be Enough for 300 Weapons

By John Fleck
JOURNAL STAFF WRITER

A 15-year-old Los Alamos National Laboratory metal shop was designed to process enough plutonium to build at least 100 nuclear bombs per year, and possibly as many as 300, Department of Energy documents suggest.

Independent arms-control experts say that is enough bomb-production capacity to meet the nation's scaled-down 21st century nuclear weapons needs.

Such work used to be done at the Rocky Flats plutonium factory near Denver, which was shut down because of environmental and safety problems.

Laboratory officials dispute the 100-to-300 figure, but refused to reveal the correct number, saying Los Alamos' production capacity is a national security secret.

Portions of the building that had been set up for plutonium fabrication have been assigned other duties, said laboratory spokesman Jim Danneskiold. Danneskiold also said current, stricter worker radiation protection rules limit the amount of plutonium work that could be done.

Danneskiold also Tuesday reiterated Los Alamos' position that it

does not want to become a nuclear weapons factory, saying such a role would damage the laboratory's basic research mission.

The Energy Department is considering either building a new bomb factory somewhere in the country, or modifying existing buildings at Los Alamos to meet future U.S. nuclear weapons production needs.

Hearings have been held around the country, including two in New Mexico in September, and a decision is expected in late 1994 or early 1995.

The information on Los Alamos' plutonium production capabilities was included in more than 400 pages of documents recently released to the Journal regarding the capabilities of the laboratory's Technical Area 55, where the bulk of its plutonium work is done.

Most of the documents date to 1978, when TA-55's main plutonium building was opened, and describe its design capabilities.

It took the department two years to release the documents under the federal Freedom of Information Act.

Non-government experts consulted by the Journal said the docu-

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Los Alamos Could Supply Plutonium for All N-Bombs

ALBUQUERQUE JOURNAL Wednesday, December 8, 1993 A7

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ments provide the most detailed publicly available information to help answer the question of how many bombs Los Alamos could produce.

The answer is this: It appears Los Alamos could build all of the bombs the United States would need to support a 21st century, post-Cold War arsenal, said Christopher Paine, an analyst at the Natural Resources Defense Council, a Washington, D.C., environmental group.

"The significance of it is in the ability of the lab to serve as either an interim or long-term replacement for Rocky Flats," said Brian Cosner, head of the Energy Research Foundation, a South Carolina environmental group and co-author of a study on U.S. nuclear

weapons plutonium work.

To manufacture a plutonium "pit," the explosive core of a nuclear weapon, the metal is heated to more than 1,500 degrees Fahrenheit and melted down, then poured into a graphite mold.

Pits must then be shaped to precise specifications. The work is done inside "glove boxes," which permit workers to handle the radioactive metal remotely, often using lead-lined gloves inserted through sealed portholes.

According to the documents, the metal fabrication area in TA-55 was designed to be able to process and shape 220 pounds of plutonium metal per month.

The amount of plutonium required for a nuclear weapon is a secret, but independent researchers put it at roughly 4 kilograms — 8.8 pounds. Using that estimate, Paine said

the newly released documents suggest Los Alamos could make about 300 bombs a year. That closely matches an estimate he previously made based on other data about Los Alamos plutonium processing capabilities.

A more conservative estimate, based on the documents' statement that "up to" 12 kilograms — 26.5 pounds — may be used to manufacture a single bomb, yields a production rate of 100 bombs a year.

No one without a security clearance knows whether 100 or 200 or 300 new plutonium pits a year is enough to meet 21st century stockpile needs.

No new bombs are now being built. Questions about whether bombs in the existing stockpile will need to be replaced remain unanswered.

The Department of Energy is trying to plan its future weapons man-

ufacturing complex with a working estimate of the required annual rate of bomb production, but that number remains classified.

Paine, doing independent calculations based on best guesses at the lifespan of a nuclear bomb, put the annual requirement at 100 or less.

One government source speaking on condition of anonymity, said future needs for new pit production could be low, because some new nuclear weapons could be built around old pits removed from warheads being retired.

Plan's collapse could mean more weapons work for LANL

By KEITH EASTHOUSE
The New Mexican

The federal Department of Energy is backing off from a plan to build a nuclear weapons production complex that would involve environmentally hazardous work at one of five sites outside New Mexico, top DOE and LANL officials said this week.

Such a decision would increase the likelihood that much of the work will be concentrated at Los Alamos National Laboratory.

Eric Schweitzer, the DOE manager in charge of preparing an environmental impact statement for the proposed nuclear weapons complex of the 21st century — dubbed "Complex 21" — said budget constraints and public opposition

have forced the DOE to rethink its plan.

"We're re-looking alternatives based on the public comments we've received and budget realities," Schweitzer said from his Washington, D.C., office.

At the lab, Paul Cunningham, program manager for nuclear materials and reconfiguration technology, said in a telephone interview that "Complex 21 as originally envisioned has lost support."

Complex 21 called for building production facilities at one or more of five possible sites — the Nevada Test Site near Las Vegas, Nev.; the Idaho National Engineering Laboratory; the Savannah River Site in South Carolina; the Oak Ridge Reservation in Tennessee; and the Pantex Site near Amarillo, Texas.

Cunningham said the decision to back

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off from Complex 21 has gained support, in part, because the U.S. military at present — and for the foreseeable future — has not ordered that any new nuclear weapons be built.

"Do you invest in a production capacity that you have no defined requirement for? No you don't," Cunningham said.

Complex 21 would have been much smaller, less diverse and far less costly than the DOE's Cold War-era weapons complex, which consisted of 13 major facilities sprawled over 12 states. Nonetheless, it would have cost hundreds of millions of dollars to build and operate.

A cheaper alternative — on the order of tens of millions of dollars, according to Cunningham — is to upgrade existing facilities at Los Alamos and Lawrence Livermore National Laboratory to give them a production capability.

LANL and Livermore traditionally have confined their activities to weapons research, development and testing. Such work requires substantially smaller quantities of plutonium, uranium, tritium and other materials and hence poses less of a hazard to workers and the environment.

The environmental impact statement that described Complex 21 said the main activity that would take place at Los Alamos — in the event that the DOE chose to upgrade existing facilities — would be plutonium work that was formerly conducted at the Rocky Flats plant near Denver.

Specifically, according to the statement, LANL would be in charge of chemically processing plutonium, the radioactive metal at the heart of most nuclear bombs. It would also be involved in forming the metal into a finished bomb part.

The lab currently has the ability to perform both functions on a small scale as part of its weapons research role.

The laboratory's "Strategic Plan," an internal document that became public in January 1993, indicated that the lab has hopes of performing a variety of other production work, including man-

ufacturing bomb parts made of uranium and developing techniques to manufacture tritium, a radioactive form of hydrogen used in nuclear bombs.

Brian Costner of the Energy Research Foundation, a South Carolina activists group, said that the amount of work the lab will get will depend on the scope of the upgrade the DOE decides to undertake.

"The lab may have a plan, but the extent of the upgrade will change and evolve along with budgets and priorities," Costner said.

Whatever the scope of the lab's role, Cunningham said that without Complex 21 it will be critical to maintain the nation's ability to produce nuclear weapons in the event new warheads are needed in the future.

He said it will also be critical for the lab to maintain the ability to replace aging bomb parts.

"We must maintain the capability to reconstruct the production capacity," Cunningham said.

Local citizens groups said the DOE's decision to back off Complex 21 in favor of an "upgrade in place" is a tactic to push the public out of the decision-making process regarding the future nuclear weapons complex.

Greg Mello of the Los Alamos Study Group said that the majority of the public does not want the DOE or Los Alamos to maintain any nuclear weapons production capability at all.

That message, he said, came through loud and clear last fall as the DOE gathered public comments on the Complex 21 environmental impact statement.

Schweitzer of the DOE said that Mello's assessment was true. "A lot of people don't want nuclear weapons at all," Schweitzer said.

The possibility of doing nothing to maintain the DOE's nuclear weapons production capability was dismissed by the DOE in a document published last summer in the Federal Register.

"Some mission requirements for maintenance of the future weapons stockpile would not be met under the no-action alternative. Therefore, the no-action alternative is not reasonable," the DOE said.

Critics of LANL seek moratorium on new projects

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By KEITH EASTHOUSE
The New Mexican

Environmental and Indian groups are seeking a moratorium on all new major projects at Los Alamos National Laboratory that might have a significant impact on the environment.

In a two-page letter to Jerry Bellows, manager of the U.S. Department of Energy's Los Alamos office, the groups said the projects should be put on hold until the DOE does a full-scale review of the environmental and health impacts of lab operations.

Greg Mello of the Los Alamos Study Group, a Santa Fe-based

watchdog organization, said a number of projects are going forward without sufficient public review — including a plan to expand the lab's nuclear disposal area and an effort to upgrade existing facilities to give Los Alamos the capability to build nuclear bombs.

"They're trying to ram (these projects) down the throats of the public without any kind of formal public process," Mello said.

Diana Webb, an official with DOE's Los Alamos office, said a moratorium would effectively shut down the lab.

"It would be unrealistic to

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think that the DOE or (the University of California) would be in a position to shut the lab down," Webb said. The university operates Los Alamos for the Department of Energy.

In addition to the Los Alamos Study Group, the organizations calling for a moratorium include Concerned Citizens for Nuclear Safety and the Sanctuary Foundation, both Santa Fe groups; Citizens for Alternatives to Radioactive Dumping, an Albuquerque group; Western States Legal Foundation, based in Oakland, Calif.; and the Rural Alliance for

Military Accountability.

Webb said that instead of a blanket moratorium on all major projects, the DOE — in concert with the public — could evaluate projects on a case-by-case basis to determine which ones can't wait until the completion of a site-wide environmental impact statement.

Those projects could then be separately evaluated — again with public involvement — for their environmental and health impacts, Webb said.

One of the purposes of the site-wide EIS is to develop a complete picture of how the labora-

tory affects the environment and public health by analyzing the cumulative impact of multiple projects, rather than studying the projects separately.

Both LANL and DOE-Los Alamos officials have indicated to DOE headquarters in Washington, D.C., that they would like a full-scale environmental review done.

The review, or environmental impact statement, would cost approximately \$10 million and take from three to five years to complete.

DOE headquarters has not formally committed itself to paying

for the study, but an official with the agency's Waste Operations Division in Washington said last month that DOE was "committed to a site-wide EIS" for Los Alamos.

Webb said that officials from DOE-Los Alamos and LANL are traveling to Washington next week to discuss the issue with high-level DOE officials.

The last time a site-wide EIS was done at Los Alamos was in 1979. In comparison, Lawrence Livermore National Laboratory in California had one done in 1982 and completed another one in 1993.

SANTA FE

MEXICAN

LANL may turn into top bomb factory in U.S.

By KEITH EASTHOUSE
The New Mexican

The possibility that Los Alamos National Laboratory may develop a small-scale capability to build nuclear bombs carries the risk that large-scale nuclear weapons manufacturing could be centered at Los Alamos in the 21st century, a top lab official said.

Paul Cunningham, program manager for nuclear materials and reconfiguration technology, said it is not the lab's intention to take on a large-scale production role — which would pose great environmental and safety hazards and could interfere with the lab's much-ballyhooed effort to build ties to private industry.

But he said he couldn't rule out the possibility that once the lab has the capability to do production work on a small scale, it would eventually take on a larger role.

"We'd be opposed to that," Cunningham said. "But I can't guarantee that at some future time, if there is a need to replace (nuclear weapons) in quantity, that that wouldn't happen here."

Cunningham said that Cold War-scale production work — if there is ever a need for it again — would be more likely to happen outside New Mexico at new facilities built by the Department of Energy.

"In the unlikely event that the U.S. makes the political decision to have a major build of nuclear weapons, then we would spawn that work out of the lab," Cunningham said.

He said the country needs to maintain the capability to manufacture nuclear weapons regardless of whether the military has a

“
I can't guarantee that . . . if there is a need to replace (nuclear weapons) . . . that that wouldn't happen here.
”

PAUL CUNNINGHAM
LANL program manager

need for new warheads.

There are no orders at present, nor for the foreseeable future, from the military for new nuclear weapons. Instead, the United States is in the process of dismantling nuclear weapons.

Mary Riseley of the Los Alamos Study Group, a Santa Fe-based watchdog organization, accused the laboratory of being motivated by self-interest in saying that a production capability needs to be maintained in the absence of military demand.

"We question whether maintaining production capability is not welfare for nuclear weapons designers," Riseley said.

The DOE had planned to build a nuclear weapons production complex — dubbed "Complex 21" — at one or more of five possible sites, all outside New Mexico.

But last week, Cunningham and Eric Schweitzer, the DOE man-

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ons research role.
Last year, a laboratory official said plutonium manufacturing work would bring with it extreme security measures that would have a chilling effect on the lab's interactions with private industry.

"It doesn't fit the future of the laboratory as envisioned by our director," said Richard Mah, who at the time was director of the lab's weapons complex reconfiguration program.

Mah also said production work would detract from the lab's weapons research work and could take away funding and personnel from other defense-related projects.

But Cunningham said that a production role — as long as it remains small in scale — would not be overly disruptive to the lab's research work.

"There are certain kinds of production work that would cause only small perturbations in the R&D role," Cunningham said.

of accidental detonation of weapons.
LANL and Livermore traditionally have confined their activities to weapons research, development and testing. Such work requires substantially smaller quantities of plutonium, uranium, tritium and other materials, and hence poses less of a hazard to workers and the environment.

The environmental impact statement that described Complex 21 said the main activity that would take place at Los Alamos in the event that the DOE chose to upgrade existing facilities would be plutonium work that formerly was conducted at the Rocky Flats plant near Denver.

Specifically, according to the statement, LANL would be in charge of chemically processing plutonium, the radioactive metal at the heart of most nuclear bombs. It also would be involved in forming the metal into a finished bomb part.

The lab has the ability to perform both functions on a small scale as part of its weap-

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ager in charge of preparing an environmental impact statement for Complex 21, said that budget constraints, public opposition and the fact that the country at present has no need for new nuclear weapons have forced the DOE to rethink its plan.

That increases the likelihood that the DOE will choose a cheaper alternative: to upgrade existing facilities at Los Alamos and Lawrence Livermore National Laboratory in California to give them production capabilities.

Aside from maintaining the nation's capability to build nuclear weapons, an upgrade would allow Los Alamos and Livermore to play what the DOE is calling a "stewardship role" over the existing stockpile of nuclear weapons.

The role would consist of activities such as replacing aging weapons components and adding safety features to reduce the chances

Plutonium 'pits' may be added to LANL duties

BY JOHN FLECK
JOURNAL STAFF WRITER

Responsibility for manufacturing nuclear bomb parts made of uranium and tritium, in addition to plutonium, could be given to Los Alamos National Laboratory under a plan now being studied by the U.S. Department of Energy, a senior laboratory official said Friday.

The department's top nuclear weapons official this week said the DOE has abandoned plans to build a new U.S. nuclear weapons factory, leaving existing plants — primarily the nuclear weapons laboratories — as the repositories for nuclear weapons-building skills.

Los Alamos, with the most capa-

ble plutonium-handling laboratory in the country, will take over responsibility for the explosive plutonium "pits" at the heart of nuclear weapons under the plan.

The laboratory also could take over responsibility for work on uranium and tritium parts, two other key components in hydrogen bombs, said Paul Cunningham, head of Los Alamos' nuclear materials program.

Other candidate sites for uranium responsibility are Lawrence Livermore National Laboratory and the Energy Department's Y-12 Plant in Tennessee, Cunningham said.

Uranium and plutonium are radioactive metals that provide a

major part of the bomb's nuclear chain reaction.

In addition to Los Alamos, the department's Savannah River Site in South Carolina is a candidate for processing tritium, a radioactive gas used to boost a bomb's explosive force.

Since 1989, the Department of Energy has planned to build a new bomb factory or factories somewhere in the country. With shrinking requirements for new bombs and rising budget pressures, however, the plan has shifted to the laboratories, which already have limited capabilities to do the work.

With no new bomb manufacturing required for the foreseeable future,

that means the labs will be required to keep bomb-building skills alive rather than to actually build bombs, Assistant Secretary of Energy Vic Reis said in an interview with the Journal.

Doing that will require some federal spending at Los Alamos to upgrade existing laboratories, said Cunningham, but how much will be spent and on what has not been decided.

One project already moving forward, even before the decision was made to give Los Alamos its manufacturing responsibilities, is a \$194 million renovation of the laboratory's Chemistry and Metallurgy Research Building.

Built in 1952, the CMR building is wearing out, and the DOE has asked Congress for \$3.3 million next year for the work. The long-range project envisions spending between \$10 million and \$30 million per year on the building until after the turn of the century.

Other building improvements will be required at Los Alamos, Cunningham said, but the precise work required has not been worked out.

The decision to abandon plans to build a new weapons factory will not affect Sandia National Laboratories, New Mexico's other nuclear weapons laboratory.

Located in Albuquerque, Sandia already had been assigned responsi-

bility for building several non-nuclear components in U.S. nuclear weapons.

The decision not to build new bomb factories is being warmly but cautiously received by arms control activists.

It sends a good signal to the rest of the world that United States has no plans to build large numbers of new nuclear weapons, said Greg Mello, a member of the Los Alamos Study Group and a leading critic of weapons work at Los Alamos.

Mello's main criticism was that the decision, like many made by the Department of Energy, appears to have been made behind closed doors, with little input from the public.

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Expert: lab can handle plutonium safely

By STEPHEN T. SHANKLAND
Monitor Staff Writer

In some ways, plutonium actually is easier to store than other hazardous materials, a Los Alamos National Laboratory researcher said Monday.

Thomas McLaughlin said the high levels of energy stored within plutonium guarantee that the amount of the material on hand will be relatively small. Plutonium storage involves "trivial amounts compared to coal waste," McLaughlin.

Because of the smaller amounts of material, it's more economical to take careful precautions, he said.

"I am convinced that we can handle it properly," McLaughlin said.

McLaughlin makes sure processes involving plutonium at LANL don't accumulate enough of the material to go "critical," or reach the point at which the material will sus-

tain a nuclear reaction.

McLaughlin voiced his opinions at a meeting of the Los Alamos Committee on Arms Control and International Security. He stated specifically that his remarks represented his own views and not necessarily those of the laboratory.

LANL scientists are designing facilities to store tons of weapons-grade plutonium safely, McLaughlin said. "Weapons-grade plutonium" means plutonium with a high concentration of plutonium-239, which has a lower critical mass than other, heavier isotopes. In contrast, plutonium in reactor fuel has more plutonium-240 and plutonium-241.

People concerned with nuclear weapons proliferation are concerned about the plutonium produced in reactor fuel, he said.

Uranium-238, an inactive component that accounts for most of nuclear fuel, becomes plutonium during nuclear reaction, he said.

The longer the fuel stays in the reactor, the more neutrons the plutonium acquires, and the higher the concentrations of heavier isotopes of plutonium.

This mixture of plutonium wouldn't be good for a large-scale military program concerned with high-reliability and high-yield nuclear weapons, but it could be used to build a "dirty bomb," McLaughlin said.

And a dirty bomb could suffice for a country wishing to make a political statement, he said.

Plutonium-239 has a half-life of about 25,000 years, he said.

McLaughlin described a conceptual facility to store plutonium in a three-dimensional grid. A few kilograms of plutonium would be stored in sealed steel cans. The cans would be spaced within a large solid.

The laboratory is researching such designs now.

About 50 metric tons of plutonium — 50,000 kilograms — could be stored in a cube about 30 feet on a side, but dissipating the heat the plutonium produces would require that such a cube be at least doubled in size, he said.

LANL has 2.6 metric tons of plutonium, and the U.S. has 89 metric tons of weapons-grade plutonium, the Department of Energy revealed in December 1993. DOE didn't release how much plutonium was in spent fuel stored at nuclear reactors, but McLaughlin estimated that there is 10 times as much in spent fuel as there is in weapons-grade material.

Each kilogram of plutonium generates about two watts of energy, a relatively small but still important amount, he said.

He said natural convection could be used to assure that a facility doesn't overheat in the future at a time beyond the life of human-

designed cooling mechanisms. A heated substance would rise on its own, cool, then sink back to be reheated again.

DOE is examining the possibility of converting an unused vault at Technical Area-55, LANL's Plutonium Facility, for plutonium storage, McLaughlin said.

DOE currently doesn't plan to ship plutonium from around the complex to LANL, but McLaughlin noted that policies could change.

LANL officials have gone on record opposing the storage of the DOE complex's plutonium at LANL, McLaughlin said.

The unused vault was intended for uranium storage, not plutonium storage, and would require substantial modifications if it were to store plutonium, he said.

For example, uranium doesn't produce nearly as much heat as plutonium, he said.