Santa Fe group says lab at risk from quakes

1/23/97

By STEPHEN T. SHANKLAND
Assistant Managing Editor

The Santa Fe-based Los Alamos Study Group said today in a news release that Los Alamos National Laboratory is at risk from earthquakes.

In particular, the group said nine lab buildings, including the Nuclear Materials Storage Facility, "have failed seismic evaluations." LANL's Plutonium Facility fire system wouldn't stand up to an earthquake, the Study Group said.

Citing papers by LANL scientists and others, the Study Group said the 25-mile-long Pajarito Fault, which runs just west of Los Alamos, "is believed capable of up to a 7.0 Richter magnitude earthquake." And it's possible that another fault, the Rendija Fault, runs beneath the Plutonium Facility.

Since 1873, there have been six earthquakes of magnitude 5.0 or greater within the LANL region, the release said.

LANL spokeswoman Kathy DeLucas said DOE doesn't consider earthquake risk to be high for LANL. DOE ranks earthquake trouble as a once-in-2,000-year event for the lab, she said.

DeLucas said that according to LANL geologist Jamie Gardner, who inspected the ground near the Plutonium Facility, said it's possi-

(Please see EARTHQUAKES, Page 7)

(from Page 1)

ble there's a fault near the Plutonium Facility. However, if he found a big fault, he would have alerted DOE, he said.

Gardner estimated that a magnitude 7 earthquake in the area most recently happened 4,000 to 6,000 years ago. He also pointed out that the nature of the ground movement is often more important than the actual magnitude during an earthquake when assessing damage to buildings.

New Mexican
1/24/97

Group doubts LANL's studies

Study concludes more seismic research needed before plutonium shipments begin

By MONICA SOTO
The New Mexican

The Los Alamos Study Group released a memorandum on Thursday in which it accused Los Alamos National Laboratory of failing to conduct adequate studies on seismic hazards in the area and their potential impact on plutonium storage.

A spokesman for the group said their study concluded that more research must be conducted on seismic activity along the Pajarito Fault System before the lab receives additional plutonium from Rocky Flats.

"I think the earthquake concerns are serious enough to warrant such studies," said Todd Macón, an executive assistant. "They need more information and need to report information before they continue with upgrades and projects."

But a spokeswoman for the lab said it initiated a seismic hazards program two years ago and is currently researching two areas connected with seismic activity in the area.

Kathy DeLucas said that the program is in the process of permitting 11 trenches to be dug in the area to look for major faults and fracture zones. The paleoseismic studies involve digging trenches a meter wide by 20 feet deep to study the frequency of seismic activity in faults.

The lab also is conducting a second study on the durability of lab buildings in the event of an earthquake. So far, the lab has not found a fault in an area of the lab titled "TA55", where plutonium is stored, DeLucas said.

"Obviously we disagree with their conclusions," she said.

The Department of Energy announced last November that the lab would play a significant role in its new "stockpile stewardship and management" program, which monitors the existing nuclear arsenal and makes upgrades when necessary.

A proposed $48 million weapons testing facility at Los Alamos, called Atlas, will help the lab assume responsibility for work that used to be performed at the Rocky Flats plant near Denver — which has been shut down since 1989 due to environmental contamination and worker safety problems.

Part of the stewardship program will also involve shipping the isotope of plutonium called plutonium-242 from the DOE's Savannah River plant in South Carolina to Los Alamos.

According to the memorandum released Thursday, six earthquakes with a Richter magnitude of 5.0 or greater have occurred within the lab's region since 1873.

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

STUDY

Continued from Page B-1

The largest earthquake, which occurred in Cerrillos in 1918, measured between 5.5 to 6.0 on the Richter scale, the memorandum said.

Macon said that geologically the 1918 earthquake is not considered old. "Earthquakes don't happen every day."

Macon said his group's major concern is that the lab's environmental impact statements do not reflect the seismic hazards.

The memorandum said that at least nine major lab buildings have failed seismic evaluations. "New Mexico does have seismic potential of a scale larger than most people imagine," he said.

DeLucas thinks otherwise.

"In this area, which is considered a low seismic area, all our buildings meet uniform building codes," DeLucas said. "We couldn't run them if we weren't in compliance."

DeLucas said the findings of both studies will be made available to the public, though a completion date is unclear.

"We are way ahead of just about anybody on seismic studies in New Mexico," DeLucas said. "We want to be safe. We don't want to get into trouble, either."

1/24/97
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Report: Lab Not Quake Ready

Critics Claim DOE Downplays Risks

By Ian Hoffman
Journal Staff Writer

If a major earthquake triggered a fire today at the plutonium facility at Los Alamos National Laboratory, the building's aging fire-suppression and filter systems could fail and release 53 pounds of plutonium into the air.

That's one scenario envisioned in a report Thursday by an anti-nuclear group on the lab's potential vulnerability to earthquakes.

The report, written by the Santa Fe-based Los Alamos Study Group, highlights gaps in knowledge of potential seismic activity near lab facilities that work with weapons-grade uranium and plutonium.

LANL geologists concede they need to know more but say the seismic faults nearest those facilities are small and have not moved much recently.

"The probabilities (of a significant earthquake) are very low," said lab geologist Jamie Gardner. "These things appear to have recurrence intervals in the tens of thousands of years. But we want to know so we can nail it down as scientists."

But, notes Greg Mello, study group president, those uncertainties do not appear in recent environmental studies by the U.S. Department of Energy. The studies led DOE to choose Los Alamos' plutonium facility as the nation's sole manufacturing site for plutonium pits, the fission triggers for nuclear weapons.

The DOE studies' risk analyses also do not consider corrosion and leaks in the fire-suppression system at the plutonium facility. DOE officials last year ordered an urgent replacement of the system, citing the potential for plutonium releases as a result of an earthquake-triggered fire.

The lab is replacing the system now, at an estimated cost of up to $2.2 million. It's scheduled for com-

Report: Lab Not Quake Ready

from **PAGE 1**

pletion in October.

"This facility is not prepared for pit production," Mello said, "And the DOE is fallaciously downplaying the risks associated with pit production in order to smooth over any public opposition."

The lab has been sizing up seismic hazards since 1985.

But as the study group's report points out, lab geologists are only now gathering a detailed map of fault lines that may lie under, or near, the plutonium facility, the Nuclear Materials Storage Facility and the Chemistry and Metallurgical Research Building.

"We're rather data-poor right now," lab geologist David T. Vaniman said.

The plutonium facility and the nuclear materials storage facility are slated for extensive renovations during the next seven years, mostly to prepare them for pit production. The work was and is being designed based on earthquake and fault da— that the study group views as inadequate, but lab officials have no plan to wait for better information from Gardner's studies.

"If the schedule does not permit waiting for new developments, we're certainly going to proceed with the new schedule," said Paul T. Cunningham, the director of the Nuclear Materials and Reconfiguration Technology Programs.

Seismically speaking, Los Alamos is no Los Angeles.

Still, it has minor earthquakes — more than 600 between 1973 and 1994 — none of magnitude greater than 3.0 on the Richter scale. Lab geologists have found evidence of a 7.0 magnitude quake 4,000 to 6,000 years ago.

"There are indications certainly that there have been large offsets along these faults, but the most recent have been several thousand years ago," Vaniman said.

"The projections of these into the future are just not comparable to the high seismic-risk areas of the country, such as California," he said.

The lab sits on the western edge of the Rio Grande Rift, one of the world's largest fault systems. At issue are three key faults: the Guaje Mountain fault, the Rendija Canyon fault and the older, larger Pajarito fault, which motorists cross as they climb NM 4 from Los Alamos to the Valles Caldera.

The Rendija fault runs south through town, fading at the town landfill about two or three miles north-northwest of Technical Area 55, the site of the plutonium facility.

Lab geologists aren't sure where its south end lies.

"If it ran a couple of meters from the security fence (at TA-55), I wouldn't get very excited," Gardner said. "If the fault is present, it's very small."

By comparison, the Pajarito fault along the lab's western boundary is the most likely source of danger.

"To me the real scary one is the Pajarito fault. It has 125 meters of vertical displacement and rocks there that are a mere one million years old," Gardner said.

If a major quake occurred along the Pajarito fault, he said, it would threaten homes and buildings across northern New Mexico.

"I live in Los Alamos, I have two children. But you don't see a moving van in my driveway, and I love my kids a lot," Gardner said. "If there was a big earthquake on one of these faults, I wouldn't be worried about the plutonium facility. I would be worried about the response capabilities of northern New Mexico."

FOR THE RECORD

A story on page one of Thursday's Journal North should have said that Randy Moncrief is a teacher at Chaparral Elementary in Chaparral, N.M. The error was made in editing.

Critics Challenge N-Bomb Addition

2/11/97 Albuquerque Journal North

By Ian Hoffman
Journal Staff Writer

Nuclear weapons scientists in New Mexico and elsewhere have finished two years' work on the latest bomb in the U.S. nuclear arsenal, a weapon designed to embed itself above hardened underground bunkers and demolish them.

The 12-foot bomb, called a deep-earth penetrator, reignites debate over what constitutes a "new" nuclear weapon — a pointed issue, as U.S. policy since 1992 has forbidden development of new weapons.

It is the first new or redesigned weapon to join the arsenal since 1989.

"The continued 'upgrading' of the arsenal undercuts both arms-control and disarmament efforts. You can't have your bombs and get rid of them, too," argues anti-proliferation activist Greg Mello, head of the Santa Fe-based Los Alamos Study Group.

Sandia National Laboratories shipped 10 dummy versions of the modified B61 bomb to the U.S. Air Force last month as training devices, plus nine sets of customized bomb-handling gear.

Weapons plants in Kansas City, Mo., and Oak Ridge, Tenn., have begun delivering the first retrofitting kits so Air Force engineers can start changing a classified number of B61-7s into the new B61-11s.

Mello's group and Greenpeace noted the deployment of the bomb in a news release Monday that suggested the Defense Department is contemplating its use against Third World nations such as Libya.

The bomb is supposed to replace the B53, a 1960s-vintage bomb with a yield estimated by private defense experts to be equivalent to 9 million tons of TNT.

The B53's age — it is the oldest weapon in the arsenal — and its use of an older, less fire-resistant conventional explosive have made it potentially unsafe, according to weapons designers. Schedules for phasing the B53 out of the stockpile remain classified.

Weapons designers maintain the 11th modification of the B61 is merely that — a re-engineering to make sure the bomb still explodes as intended after being dropped from a plane to slam into the earth at the speed of a .45-caliber bullet.

"This is not a new weapon. It's a modification of an existing weapon to assure its survival ... that allows the weapon to shallowly impact the ground and then detonate," said Roger Hagengruber, vice president for national security programs at Sandia.

Hagengruber, who heads the lab's nuclear weapons program, said the modifications mostly amount to a hardened and slightly more pointed nose cone and the use of a concentric flare, or spoiler-like device, in the

See **CRITICS** *on* **PAGE 3**

Critics Challenge N-Bomb Addition

from **PAGE 1**

bomb's rear, rather than fins.

"It's sort of like putting a new fender on your car. And instead of Fiberglas, you put a metal fender on and maybe a nose out front," he said.

Even weapons designers struggle with the definition of a new weapon, but seem to agree it must meet one of two criteria: The weapon represents a wholly new military capability or employs substantially new technology in its nuclear package.

The nuclear package of the B61-11 remains unchanged and, designers argue, the B61-11 merely assumes the same role as the retiring B53.

Each B61 is thought to permit selection from four or five blast yields — a feature one expert terms "dial-a-yield" — from just 300 tons of TNT equivalent to 340 kilotons, or 20 times the explosive power of the Hiroshima bomb.

The smaller yields concern Mello and other activists whose cause is aided by abhorrence among the public and policymakers for the use of massively destructive weapons.

Defense theorists have mulled battlefield use of such "mininukes" or "micronukes" to contain damage and radioactive fallout, the key self deterrence to the use of nuclear weapons.

"Subkiloton weapons could be very effective for both deterring and defending in future worldwide contingency operations," wrote two analysts with Los Alamos National Laboratory in late 1991.

LANL scientists designed and tested the original B61 in the 1980s and so had to certify that the changes and the stresses of earth penetration would not impair the bomb's performance.

A joint team from Sandia and Los Alamos observed drop tests of mock B61-11s in February 1996 in Alaska and again in November in Nevada.

Arms-control activists are unconvinced and are troubled by the Defense Department's rush to bring the B61-11 online, especially given renewed U.S. pressure on the Russian government for ratification of the START II arms-reduction treaty.

William M. Arkin, a private nuclear weapons consultant and columnist for the Bulletin of the Atomic Scientist, says the project suggests the weapons labs' thirst for new work still has a role in driving the arms race.

More worrisome, he insists, is that the Clinton administration yielded to demands from the Air Force's Strategic Command for a nuclear weapon to take out deep-dug command bunkers of the sort favored by the former Soviet Union.

"That DOD and DOE (the Department of Energy) and the White House can accept that kind of obsolete Cold War thinking is more disturbing to me," he said. "It just symbolizes that the game isn't over in the minds of the government, that the administration isn't really into ending the arms race."

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Edition--Final Date--02/11/1997 Page--A1

Labs Help Develop Penetrator N-Bomb

Ian Hoffman Journal Northern Bureau

Weapon Violates Arms Treaties, Critics Say

SANTA FE -- Nuclear weapons scientists in New Mexico and elsewhere have finished two years' work on the latest bomb in the U.S. nuclear arsenal, a weapon designed to embed itself above hardened underground bunkers and demolish them.

The 12-foot bomb, called a deep-earth penetrator, reignites debate over what constitutes a "new" nuclear weapon -- a pointed issue, as U.S. policy since 1992 has forbidden development of new weapons.

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No Need To Reopen The Clean Air Act, Green Groups Contend

BY MARY O'DRISCOLL

Environmentalists are confident that Congress can restructure the electric power industry without reopening the Clean Air Act, saying the focus should be on changing the competitive effects of the 1990 law, not the law itself.

Ralph Cavanagh of the Natural Resources Defense Council says that means Congress should work to eliminate the emissions-based distinctions between competitors in the power market—older, dirtier power plants that because of their CAA exemptions generate cheaper power than newer ones—instead of giving the auto industry and others a second crack at a law they do not like.

Calls to reopen the Clean Air Act have been issued by some industry observers who fear that competition will increase downwind transport of power plant emissions from the Midwest to the Northeast. But these environmentalists have a different view, and they are pushing their position on

(Continued on page 2)

Earthquake Worries Pose Problem For Los Alamos

BY GEORGE LOBSENZ

New questions have been raised about earthquake threats to plutonium facilities at the Energy Department's Los Alamos National Laboratory, including a plutonium storage building now being renovated to correct severe construction faults that made the facility unusable.

The seismic hazard allegations, made by a Los Alamos watchdog group, come at a sensitive time for DOE since it is planning to shift key plutonium fabrication activities to LANL as part of its nuclear weapons complex downsizing plan.

The earthquake concerns have been further underlined by a recent independent assessment of Los Alamos' Nuclear Materials Storage Facility (NMSF), which has sat empty at the New Mexico weapons lab since it was finished in 1987 at a cost of $19.3 million. DOE is planning a $56.6 million renovation to fix the storage building so it can hold up to 6,600 kilograms of plutonium, but new NMSF structural concerns were identified last summer by the Defense Nuclear Facilities Safety Board, a federal agency that oversees DOE nuclear safety.

The allegations by the Los Alamos Study Group, based in Sante Fe, N.M., are based on new earthquake studies—some done by Los Alamos scientists—that suggest seismic risks at the lab

(Continued on page 2)

RDI's Stranded Cost Tally: $202 Billion

BY DENNIS WAMSTED

A new study from Resource Data International Inc. puts the nation's stranded cost total at a whopping $202 billion. And all segments of the industry are at risk, RDI reports in *Power Markets in the U.S.*, with the nation's investor-owned utilities potentially on the hook for $147 billion, public power companies facing a $33 billion tab and the cooperatives confronting a $22 billion stranded cost price tag.

The lion's share of the stranded cost problem, RDI reports, can be traced to capital-intensive nuclear power plants. In all, nuclear plants account for $86 billion of the nation's estimated $202 billion in stranded costs, RDI said.

The second-largest component of the stranded cost equation, RDI said, is above-market power purchase contracts from other utilities. In all, these contracts account for $54 billion of the stranded cost problem.

Next on the list, RDI said, are utilities' regulatory assets—previously incurred costs carried on utilities' balance sheets with the assumption that they will be recovered later. RDI estimates these costs at $49 billion, and warned that "This area of 'intangible' stranded costs will prove to be highly contentious as utilities and regulator struggle to push forward with deregulation."

Finally, above-market power purchase contracts from nonutility generators created in the wake of the Public Utility Regulatory Policies Act account for $42 billion in potential stranded costs. Though they constitute the smallest single component, these NUG contracts

(Continued on page 3)

Holiday Notice:

Owing to the Presidents Day holiday, *The Energy Daily* will not be published on Monday, February 17. Our next issue will be dated Tuesday, February 18.

Clean Air Act...

(Continued from page one)

that and other issues that they argue tie the environment to the economic policy behind electric power restructuring. On Thursday they issued their own eight-point federal agenda for restructuring, sponsored by 28 organizations.

"Why should the public want restructuring if it doesn't result in lower utility bills and cleaner power?" asked Howard Learner of the Environmental Law and Policy Center of the Midwest.

"There is no escaping the footprint of the energy industry on the environment," he added. "It is the most profound one that we have.... And whether [the industry] likes it or not, the environment is part of the restructuring debate."

The environmentalists' agenda includes requirements that all generators face full and fair competition; assurances of universal, reliable and quality service through strong consumers' rights and protections; expansion of energy efficiency and renewable energy; and fair allocation of the benefits and costs of restructuring—with the caveat that a majority of the groups signing on to the agenda believe utilities should bear all losses associated with any uneconomic nuclear and fossil-fueled power plants.

The agenda also seeks requirements that restructuring produce an industry that operates in a manner compatible with achieving national environmental and public health objectives; acknowledgment of a need for strong state and regional regulatory authority; requirements that suppliers disclose important consumer information regarding their power purchases; and assurances of environmental mitigation and consumer protection in operation of power marketing administration facilities.

And though eliminating differences between old and new source performance standards would require amending the Clean Air Act itself, Terry Black of the Project for Sustainable FERC Energy Policy says it could be possible to change what the law did in terms of unequal standards by implementing another law.

"This would be like amending the impact of the Clean Air Act, which [established] a set of subsidies that was OK in some circumstances, but in a competitive marketplace is wholly out of place and distorted," he said.

Earthquake Worries... *(From page one)*

may be higher than have been assumed by Los Alamos officials.

For example, the study group cited one paper released last year at the New Mexico Geological Society's annual meeting by Ivan Wong and nine other scientists, most of whom are employed by Los Alamos or Los Alamos contractors. Among other findings, the paper concluded: "The results of the probabilistic seismic hazard analysis indicate that the ground shaking hazard at the Los Alamos National Laboratory is higher than might be indicated by the historical record and therefore higher than is commonly believed possible."

The study group also pointed to some evidence that a significant ground fault may run directly under the lab's Technical Area 55, where plutonium operations are centered.

And the group challenged recent seismic risk analyses conducted by Los Alamos, citing independent criticism of the screening method used by the lab to assess buildings' structural soundness. While many of the lab's plutonium facilities reportedly "passed" the screening, the study group charged Los Alamos did not follow standard seismic assessment techniques specified by the Federal Emergency Management Agency.

Los Alamos officials rejected the study group's allegations as unfounded, saying the lab is well-aware of the new earthquake studies and already is taking action to strengthen some buildings. Nine building have failed seismic tests.

Jamie Gardner, a geologist at Los Alamos, said he was among the co-authors of the Wong paper cited by the study group, and that the potentially higher earthquake risks are being taken into account. He disputed the charge that a fault runs underneath the TA-55 plutonium operations area, saying the evidence is inconclusive and that the issue is being studied further.

Overall, Gardner said in an interview, "The hazard is somewhat higher. That is emphatically true." But he added, "The bottom line from a [building] design perspective is really pretty much the same."

It was not clear whether DOE considered the new Los Alamos earthquake studies in the preparation of its environmental impact statement on the restructuring of its weapons complex, including the establishment of new plutonium operations at Los Alamos.

"Although a moderate seismic risk exists at Los Alamos National Laboratory, this would be considered during design, construction and operation of any new functions," said the EIS released last September. "The existing seismic risk does not preclude safe implementation and operation of the new functions."

However, that EIS did not assess the project to renovate the Nuclear Materials Storage Facility, though it has been identified by DOE as necessary for Los Alamos operations by 2002. The department has not issued any separate environmental statement for the NMSF renovation project—an omission the study group said violates the department's environmental regulations.

However, the NMSF project was reviewed last year by the Defense Nuclear Facilities Safety Board, which wrote to DOE last September to cite new concerns about the structural adequacy of the few original building walls that will be kept in the renovation.

The safety board staff noted that quality control documents for concrete strength and reinforcing steel placement in the facility's walls could not be found. The safety board said a detailed examination showed concrete thickness was generally satisfactory, but that variations in thickness could affect seismic resistance. In addition, the board expressed concern about "potentially out-of-specification" steel reinforcement placement in the concrete walls.

In an interview with *The Energy Daily*, John Conway, the chairman of the Defense Nuclear Facilities Safety Board, said DOE officials are responding to the board's concerns. However, he said the renovation project is still in a preliminary design phase and the board could make no final conclusions about the likely earthquake safety of the overhauled storage facility until it received design plans.

"This is a serious matter that we will continue to follow," he said. "It's fairly early in the game. We will assess the preliminary design; if we think there are any unreasonable risks, we will make recommendations" to DOE for corrections.

The problems at the NMSF were detailed in an audit report released last month by DOE's inspector general, who apparently was alerted to the idle facility by an anonymous tipster.

Bunker-Busting Bomb Prompts U.S. Discord

By JEFF ERLICH
Defense News Staff Writer

Defense News 2/24/97

WASHINGTON — The United States is ready to deploy a bunker-busting nuclear weapon that arms control watchdogs say is the first new bomb developed by the Department of Energy since the end of the Cold War.

The bomb, called the B61-11, is designed to strike command bunkers buried hundreds of meters below the ground and other deeply buried targets.

U.S. officials maintain the device simply is an existing B61 nuclear bomb in a new carrying case.

"All we've done is put the components into a case-hardened steel shell that has the capability of burrowing quite a ways underground, through frozen tundra, through significant layers of concrete," Air Force Gen. Eugene Habiger, commander in chief of the U.S. Strategic Command, said in a Jan. 28 interview at his Offutt Air Force Base, Neb., headquarters.

The conversion involved a new tail kit and nose cone for the bomb, an official with the Energy Department, which oversees nuclear weapons, said Feb. 18.

"This is not new, in any way, shape or form," the Energy official said.

The bomb is needed, U.S. officials said, to replace the B53 bomb, which nuclear war planners use to target deeply buried Russian command and control facilities.

But independent arms control advocates said the B61-11 is insidious for two main reasons: It undermines U.S. efforts to reduce tensions with Russia and its development may have been linked to targeting Libya, a non-nuclear state.

"The B61-11 provides something new, or else why deploy it?" asks the Los Alamos (N.M.) Study Group, in a Feb. 10 paper, "B-61 Concerns and Background."

New or not, Bill Arkin, an arms control consultant based in Pomfret, Vt., said developing a bomb to destroy buried Russian

See BOMB, Page 18

Upgraded Nuclear Capability May Prompt Russian Concern

BOMB, From Page 1

command and control facilities could be destabilizing.

"What that signals to the Russians is far more detrimental than any gains it makes in deterrence," Arkin said Feb. 18.

By achieving what Habiger called a "shock-coupling effect," the bomb directs the bulk of its energy downward, destroying everything buried beneath it to a depth of several hundred meters.

Prior to its development, which was completed in December, the best earth-penetrating nuclear weapon in the U.S. arsenal was the B53, a 9 megaton bomb. The B53, with a force equal to 9 million tons of TNT, penetrates the earth by creating a massive crater, rather than the more precise blow the B61-11 is meant to deliver.

But the B53 cannot be carried by the B-2 bomber, and offers less assurance that it will destroy its target than does the B61-11, Arkin said.

The B61-11, which can be carried by a B-2, can produce explosions ranging from 300 tons of TNT to more than 300,000 tons, and therefore could be more appropriate for use against targets like Tarhunah, Libya, according to Bruce Hall of the international environmental group Greenpeace.

According to U.S. officials, Tarhunah was the site of an underground Libyan chemical weapon plant under construction until late last year.

Bolstering the view that the B61-11 was developed for non-nuclear targets are documents obtained from the Department of Energy under the Freedom of Information Act, Hall said Feb. 14 from his office here. These include a Dec. 18, 1995, letter from Thomas Seitz, acting deputy assistant secretary of energy for military applications and stockpile support, to Harold Smith, then assistant to the defense secretary for atomic energy.

In this letter, Seitz said Energy Department officials were accelerating production of the B61-11 conversion kits to provide them "as soon as possible."

Hall said the call for an accelerated schedule points to U.S. officials considering its use against Tarhunah.

In the spring of 1996, Pentagon officials first said they were weighing the option of destroying Tarhunah with a nuclear blast, then later retracted this statement.

Green Party chooses county leaders

Santa Fe County Green Party members chose their county co-chairs over the weekend, electing anti-nuclear activist Peggy Prince and re-electing Miguel M. Chavez, who has headed the effort to build a Hispanic cultural center called Museo Cultural.

Chavez said he and Prince were elected by a unanimous vote of the 25 party activists at the meeting Saturday at the Santa Fe Public Library.

He said that over the next year, the county's Green Party leadership will "be focussing on more community building, on nuclear issues, supporting the Los Alamos study group, backyard composting, environment, health and the Human Rights Alliance."

New Mexican wire services

3/10/97

Paper: Santa Fe New Mexican, The (NM)
Title: BRIEFS Worker pleads guilty to theft from lab
Date: March 10, 1997

LOS ALAMOS A former employee of a Los Alamos National Laboratory contractor has pleaded guilty in the theft of more than $60,000 worth of copper from the lab.

Ralph Martinez pleaded guilty last month in state district court in Santa Fe to one count of conspiracy to commit larceny over $20,000. Four other charges were dropped in the plea bargain.

Martinez is to be sentenced in Santa Fe on April 14 for the third-degree felony, District Attorney Linda Lonsdale said.

He faces up to three years in prison and $5,000 in fines.

Martinez, Patrick Sanchez and Alan Dominguez, all former employees of Johnson Controls World Services Inc., were tried earlier on accusations that they stole copper wire, copper forgings and copper castings from a lab technical area. Martinez and Sanchez also were accused of taking copper castings from a construction site.

San Miguel County freezes purchases

LAS VEGAS, N.M. The San Miguel County Commission has frozen all purchases, mileage and per diem expenses indefinitely and could consider a freeze on hiring and raises, commission Chairman Willie Salas says.

``We know for a fact the county's broke,'' Salas said. ``It comes back to quality management and accountability. We're discussing how we're going to do it.''

The freeze will allow only emergency expenses to be paid, said Commissioner Larry Rascon.

The commission took the action last Tuesday after a six-hour closed commission session.

Test ends, reservoir flows increasing

FARMINGTON After four months of testing the effects of a low water flow on fish and fishing, water release rates are increasing at Navajo Reservoir.

The U.S. Bureau of Reclamation began increasing the water flow last week, and said it would raise water release rates through Navajo Dam to as high as 5,000 cubic feet per second this spring.

Bureau civil engineer Don Fazzan said average peak releases probably would be in the range of 2,000 to 3,000 cubic feet per second.

During the low-flow test, the rate was 250 to 300 cubic feet per second.

The flow is projected to be about 1,700 cubic feet per second through March and April.

New Mexican wire services Wednesday deadline for DWI offenders

DWI offenders who have failed to show up in court, pay their fines or complete their community service, screening and treatment requirements have until Wednesday to ``make good'' on their non-compliance problems or face the DWI Bench Warrant Round-Up, the Santa Fe County DWI Task Force announced last week.

Santa Fe city police and county sheriff's deputies plan to serve about 800 arrest warrants on noncompliant DWI offenders on St. Patrick's Day, March 17, meaning some offenders could spend the holiday or longer in jail, according to a task force news release.

Police officers and deputies will be working overtime, paid by the task force through funding from the state Traffic Safety Bureau.

Offenders who want to clear up their problems before a warrant is issued for their arrest can go to Magistrate Court, on Galisteo Street south of St. Michael's Drive, between 8 a.m. and 9:45 a.m., or to Municipal Court, on Camino Entrada near the corner of Cerrillos and Airport roads, between 8 a.m. and 5 p.m. weekdays.

Green Party chooses county leaders

Santa Fe County Green Party members chose their county co-chairs over the weekend, electing anti-nuclear activist Peggy Prince and re-electing Miguel M. Chavez, who has headed the effort to build a Hispanic cultural center called Museo Cultural.

Chavez said he and Prince were elected by a unanimous vote of the 25 party activists at the meeting Saturday at

the Santa Fe Public Library.

He said that over the next year, the county's Green Party leadership will ``be focussing on more community building, on nuclear issues, supporting the **Los Alamos study group**, backyard composting, environment, health and the Human Rights Alliance."

Chavez said the county party did not decide whether it wants to support a state Green Party candidate for the 3rd Congressional District seat Bill Richardson vacated when he became U.S. Ambassador to the United Nations. Instead, Chavez said, 32 delegates from the county party will vote their own opinions at the state convention in El Rito on Sunday.

Carol Miller, a health care activist from Rio Arriba County, would like to run as the party candidate, and Santa Fe City Councilor Cris Moore said he remains uncertain whether he'll run.

Section: Main
Page: A4

Paper: Santa Fe New Mexican, The (NM)
Title: Watchdog groups sue to stop LANL weapons upgrade work
Date: March 18, 1997

A coalition of nuclear watchdog groups including two Santa Fe organizations wants a federal judge to prevent $300 million worth of planned upgrades at Los Alamos National Laboratory weapons facilities from going forward pending a legal action against the Department of Energy.

Among the projects that could be affected are planned upgrades to Technical Area 55, the lab's top secret plutonium research plant; to the Chemistry and Metallurgy Research building; and to the Nuclear Materials Storage Facility.

``We will seek an injunction of all activities related to the production of plutonium pits,'' Greg Mello, of the Santa Fe-based **Los Alamos Study group**, said Monday.

The hazardous work of building plutonium pits grapefruit-size metal spheres found at the heart of most nuclear bombs was recently transferred from the Rocky Flats plant near Denver to Los Alamos. The lab is expected to build from 20 to 80 pits per year far fewer than the more than 1,000 pits a year that were built at Rocky Flats during the Cold War.

In a March 14 letter to the Energy Department, the coalition of more than two dozen groups informed DOE attorneys that they are seeking to reopen a seven-year lawsuit between the agency and citizen organizations.

The groups say the agency has failed to live up to the terms of a 1990 settlement that required the DOE to conduct environmental studies of its plans to rebuild and clean up the U.S. nuclear weapons complex.

Energy Department officials were not reached for comment.

A laboratory spokesman declined comment.

The coalition is led by the National Resources Defense Council, a Washington D.C. organization, and includes groups from California, Nevada, Washington state, Tennessee, Utah and Texas. The other Santa Fe organization is Concerned Citizens for Nuclear Safety. Citizens for Alternatives to Radioactive Dumping, an Albuquerque group, is also part of the coalition.

The coalition's major claim is that the agency has failed to properly evaluate alternatives to its plan to spend $40 billion over the next 10 years on revamping its nuclear weapons facilities.

The plan is controversial not just because of its cost. It is widely viewed as a political payoff to the nuclear weapons establishment, which was forced earlier in the decade to accept the termination of underground nuclear testing.

The coalition also says the DOE has fallen short in analyzing its plans to handle nuclear and chemical waste generated by future weapons work.

Christopher Paine, senior research associate with the National Resources Defense Council, said the agency has strayed so far from the 1990 settlement that its future plans ``no longer add up to a coherent whole.

``They've confused themselves and the public,'' Paine said.

The stockpile stewardship and management program is designed to maintain the nation's existing nuclear arsenal in a state of readiness. This is to be accomplished in two ways: by replacing aging weapons components and by testing weapons without blowing them up in an array of new facilities.

The Los Alamos arm of the program is set to receive $416 million in 1997, about a 10 percent increase from the previous year. The lab is also set to install new supercomputers as a way to simulate nuclear testing.

Author: KEITH EASTHOUSE
Section: Main
Page: A1

Lawsuit To Be Renewed Over DOE Studies

Group Targets Impact Statements

3/18/97

Journal Staff Report

Anti-nuclear activists plan to reopen a 1989 suit alleging the U.S. Department of Energy again has failed to perform adequate environmental studies on its largest nuclear weapons and waste-cleanup programs.

The renewed case will attack much of DOE's blueprints for post-Cold War work in weapons research and the cleanup and management of weapons-related radioactive wastes.

More than two dozen environmental groups nationwide — three in New Mexico — told the DOE on Monday that they view three key environmental-impact statements in those areas as deficient or nonexistent.

DOE officials could not be reached Monday night for comment.

One EIS on stewardship or caretaking of the nation's nuclear stockpile gives the green light to Los Alamos National Laboratory for an $800 million program to begin building plutonium pits — the fission triggers for thermonuclear weapons — by 2003.

"We just think all of this is rushing forward all too fast," said Greg Mello, president of the Santa Fe-based Los Alamos Study Group, which opposes nuclear proliferation.

The groups settled the 1989 case with the DOE on the agency's promise to perform the elaborate environmental studies. The renewed suit will allege the result falls short of a comprehensive review.

For example, Mello said, the EIS on stockpile stewardship fails to study potential environmental impacts from the $422 million Advanced Hydrotest Facility, planned for Los Alamos. Yet initial spending on the experimental machine already has begun.

The groups hope the suit will prompt the DOE and Congress to rethink the trend toward increased spending on weapons and reduced spending on waste cleanup, said Jay Coghlan, program director with another Santa Fe anti-nuclear group, Concerned Citizens for Nuclear Safety.

"Given the choice, would the taxpaying public choose to fund pork-barrel nuclear weapons programs producing more nuclear waste or would it choose cleanup programs?" Coghlan said.

"We think taxpayers are due the peace dividend they paid for long ago."

The groups say they will file to reopen the case after the 10-day notice period expires.

The motion will be reviewed by the original judge, Stanley Sporkin of the U.S. District Court for the District of Columbia, which handles appeals of actions by federal agencies.

Publication: Jnl Legacy 1995 to July 2005; Date: Mar 23, 1997; Section: Final; Page: 15

Section--New Mexico & The West Edition--Final Date--03/23/1997 Page--B10

Labs' PR Spotlights Non-Military Work

John Fleck Journal Staff Writer

When a major new nuclear weapons project was launched at Los Alamos National Laboratory in September, the lab's message was about jobs, not nukes.

"Accelerator-production of tritium work should boost northern New Mexico's economy," the headline of the September 1996 lab news release said.

The big new nuclear weapons project, the release said, "should pump $10 million a year for the next five years into the northern New Mexico economy."

"We chose to put the economic impact facts as the focus of the story," said John Gustafson, one of the leaders of the lab's six-person PR staff.

Los Alamos' economic benefits emerged as a major theme in the lab's news releases at the same time the lab was weathering political criticism for job cutbacks.

"We have been criticized for not doing enough for the region, both economically and in terms of other community and civic-minded activities," Gustafson explained.

The result of that major PR effort was that, while Los Alamos' main job is nuclear weapons research, its news releases in 1996 focused more on the economic benefits it provides to northern New Mexico, according to a Journal analysis.

And while nuclear weapons research dominates the lab's budget and workload, news releases about non-military research outnumbered news releases about the nuclear weapons program four to one.

The numbers for Sandia National Laboratories, also a nuclear weapons center, are similar.

While Sandia shifted more of its PR attention to its national security work in 1996, news releases about non-military research outnumbered those issued on military work by more than three to one.

Critics suggest that means the labs' "PR armies" are misleading the public about what Los Alamos and Sandia do.

"The public doesn't like nuclear weapons," said Greg Mello of the Los Alamos Study Group, a frequent critic of Los Alamos.

"Nuclear weapons are the primary mission, the overwhelming mission, of both Los Alamos and Sandia. The public relations solution is to paint a false picture of what is actually happening at the

laboratory by selective emphasis."

Sandia's head press spokesman, Rod Geer, believes Mello is wrong.

He offers a simpler reason for the imbalance -- nuclear weapons just aren't that interesting to the general public.

Scott Duncan, head of public affairs at Los Alamos, offers a pragmatic explanation for the reason non-weapons news dominates the lab's PR at the same time weapons work dominates the lab's workload.

Nuclear weapons money is a sure bet, Duncan believes, so the lab's efforts at self-promotion need to be dedicated to pushing the other 25 percent of the budget to help ensure money doesn't dry up.

The goal, according to Duncan's annual report, is to "give the lab the name recognition required to generate support from government and industry sponsors," so that when decisions about funding are made, the people making them will be familiar with Los Alamos's work.

Lab officials point to exceptions to the overall statistics about the imbalance in their news releases.

While jobs for northern New Mexico led the 1996 news releases about tritium production, releases in 1992, 1993 and 1995 focused on the nuclear weapons implications of the work, Gustafson pointed out.

And Sandia, in announcing plans to build the world's fastest supercomputer, made clear the machine's main purpose was for nuclear weapons simulations.

Watchdog groups sue to stop LANL weapons upgrade work

3/18/97

By KEITH EASTHOUSE
The New Mexican

A coalition of nuclear watchdog groups — including two Santa Fe organizations — wants a federal judge to prevent $300 million worth of planned upgrades at Los Alamos National Laboratory weapons facilities from going forward pending a legal action against the Department of Energy.

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Please see **WEAPONS**, Page A-2

WEAPONS

Continued from Page A-1

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The groups say the agency has failed to live up to the terms of a 1990 settlement that required the DOE to conduct environmental studies of its plans to rebuild and clean up the U.S. nuclear weapons complex.

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The coalition also says the DOE has fallen short in analyzing its plans to handle nuclear and chemical waste generated by future weapons work.

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SUNDAY, MARCH 23, 1997

EDITORIALS • 2 SECTION
DIMENSION • 16 B

Selling Government To Taxpayers

■ Nearly every major agency in the state has someone on staff doing public relations

BY JOHN FLECK
Journal Staff Writer

LOS ALAMOS — Scott Duncan minces no words about his mission at Los Alamos National Laboratory: "Help the lab attract $1.1 billion of funding."

That's what it takes to keep Los Alamos' doors open for a year, and Duncan, chief of public relations for the lab, sees it as his job to help keep the money flowing.

So Duncan's PR staff of six, with a budget of $690,000 this year, issues news releases and chats up reporters, working to promote the once top-secret nuclear weapons laboratory.

That a taxpayer-funded institution would use some of its taxpayer money to try to get more taxpayer money strikes critics as wrong.

"I think it's completely self-serving," said John Stauber, director of the Wisconsin-based Center for Media and Democracy, a consumer-advocacy group that tracks the public relations industry.

Labs PR

LANL, Sandia PR spotlights non-military work at labs. B10

"Regardless of the message, it's not a proper use of public funds," said Greg Mello of the Los Alamos Study Group, a frequent laboratory critic.

But like it or not, public relations has taken on the role of selling government to the taxpaying public in the '90s.

"Every government, at any level, doesn't do a thing without PR," charges Stauber.

■ ■ ■

Virtually every major government agency has someone on staff, called something like "public information officer," whose job it is to act as an intermediary between the institution and the news media and the public.

Their operations range from what critics have called the "PR armies" at Los Alamos to one- or two-person offices like veteran journalist Janet Blair's down the hall from Albuquerque Mayor Martin Chavez.

They send out news releases and call news conferences in attempt to enlist the media in getting their word out to the public.

That word could be as simple as conveying basic information the public needs. That's what Cibola National Forest public information officer Karen Carter was doing when she called news conferences during last year's drought to let people know the forest was being closed because of fire danger.

It can involve a political fight, as when Mayor Chavez called a news conference in November to complain about legislation changing the way franchise fees are levied against utility companies.

Or it can be a long-range strategy to create an image, such as the work by the PR office at Los Alamos, a nuclear weapons laboratory, to push the nonmilitary science the lab does.

See THE ART on PAGE B10

from PAGE B1

Most agencies, like the Army Corps of Engineers and the Department of Veterans Affairs offices in Albuquerque or virtually every state agency in Santa Fe, have a single person doing the job, and often that person also handles other duties, such as organizing public meetings and publishing employee newsletters.

Some, like the Bernalillo County District Attorney's Office, have no one.

As government has grown more complex, public relations has become an increasingly important function, said Ed Moreno, a longtime Associated Press reporter who now works as director of community and public affairs for the New Mexico State Land Office.

The critics don't complain about the simple things, like Carter's fire-closure news conferences.

"There's a legitimate reason to have public relations people, but I think there's a much bigger self-interested reason for the bureaucracy and the bureaucrat to have it," said consumer advocate Stauber.

The problem, according to Gerald Goodman, an Albuquerque resident who has been a frequent critic of Chavez, is when taxpayer money is used not to inform but to promote a political agenda.

Duncan, of Los Alamos, sees public relations as a necessity to promote his laboratory's interests. It is a competitive world, and lots of institutions are pursuing the same federal research money.

"You've got universities chasing it. You've got federal labs chasing it. You've got industry chasing it," he said.

Duncan is simply more blunt than most practitioners of the government PR art, who more often use lofty language like that in Sandia National Laboratories' PR mission statement — "to keep the organization's public well-enough versed about the organization and its missions to increase that organization's chances of success."

"Our goal is to promote or communicate news about Sandia R&D (research and development) accomplishments that illustrate to people how we are providing exceptional service in the national interest," said Rod Geer, head of the media office at federally-funded Sandia.

To accomplish that, Sandia has a PR staff of five, three in New Mexico and two at Sandia's California lab site, with a total budget of $706,000 this year. They sent out 60 news releases in the first nine months of the 1996 fiscal year, trying to persuade journalists to write about Sandia's work.

As Sandia's budget and work force have declined, so has the size of the public relations office, with two people leaving over the last year without being replaced.

That contrasts with Los Alamos. The staff generating press releases and responding to the reporters' inquiries is the same size as before the laboratory cut 1,000 jobs in 1995 in response to federal budget cuts and changes in its workload.

■ ■ ■

Almost to a person, government PR people offer the same primary reason behind their jobs — to let taxpayers know what's being done with their money.

"The taxpayers have a right to know what's going on," says Los Alamos' Duncan.

To that end, a big part of any government public relations person's job is answering questions from reporters — and journalists say that is an important job.

"You can't do without them on the nuts and bolts," said Hank Trewhitt, a veteran Baltimore Sun reporter who now teaches journalism at the University of New Mexico.

At Los Alamos Duncan's team handled 1,752 news media questions in 1996 — an average of nearly seven every working day.

Blair, who handles press for Albuquerque's mayor, said she has fielded as many as 30 news media calls in a single day.

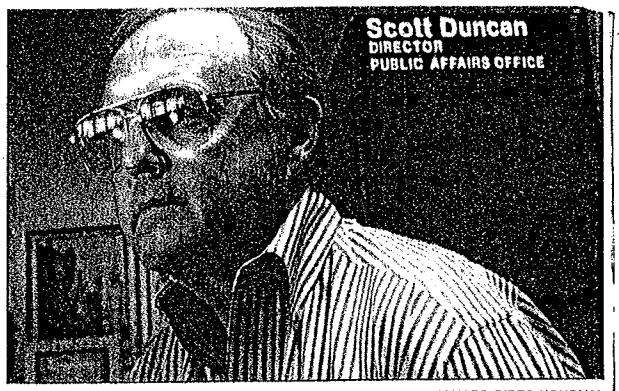
That is why Albuquerque Police Department spokesman Tony Herrera frequently can be seen standing beside a yellow police tape on the evening news explaining what happened to the sheet-covered body in the background.

That's why the U.S. Attorney's Office in Albuquerque hired Ron Lopez, who spends about half his time serving as a liaison with the media on issues such as Indian gambling.

"This has become a very high-profile office," said Lopez. He frequently fields three media telephone calls an hour, though about half his job involves non-media work, coordinating the office's joint programs with local law enforcement agencies.

■ ■ ■

While public relations people can help journalists, they also can serve



RICHARD PIPES/JOURNAL

ATTRACTING MONEY: Scott Duncan, the head of the Los Alamos National Laboratory public affairs office, says it's his job to help keep tax dollars flowing into the northern New Mexico research center.

Government PR salaries

Salaries for some of New Mexico's most prominent government public relations people:

Scott Duncan, Los Alamos National Laboratory: $129,000. In addition to overseeing the lab's PR staff, Duncan also manages community relations and employee communications.

Rod Geer, Sandia National Laboratories: refused to state. Because Sandia is run by a private company, Lockheed Martin, for the U.S. government, salaries are not public record.

Ed Moreno, state Land Office: $57,000. Moreno also oversees some community relations and employee communications programs.

Ron Lopez, U.S. Attorney's Office: $49,000. Public relations is half of Lopez's job.

Janet Blair, city of Albuquerque and Mayor Martin Chavez: $46,000.

Rick Murray, Albuquerque Public Schools: $45,000.

The Art of Selling Government to Taxpayers

3/23/97 Abq. Journal

as gatekeepers, in some cases blocking reporters' access.

Laurie Leisenfeld, a teacher at Albuquerque's Alameda Elementary School, was suspended after talking to a television reporter in May 1996. The reporter was at the school covering a demonstration by a community group alleging problems at the school.

Leisenfeld said she initially was told the suspension came because she talked to the media, a violation of an implicit rule that all media inquiries be referred to Albuquerque Public Schools spokesman Rick Murray. She was eventually reinstated.

Murray acknowledged the school district has an unwritten rule that all media inquiries are supposed to be funneled to one person — Murray.

The reason, he said, is so that district officials communicate a clear message to the public.

However, one result of that is that parents and the public can lose the chance to get a true picture of what's going on in the community's schools, Leisenfeld said.

Sandia and Los Alamos try to enforce that gatekeeper role. Workers aren't supposed to talk to reporters without a PR person being consulted first. That allows the PR people to control the information going out to the public, said Chris Mechels, a retired Los Alamos employee who has become a vocal lab critic.

The Los Alamos PR organization, Mechels said, "is about controlling information and spinning information."

"They're just trying to avoid any negative publicity as much as possible," Mechels said.

By serving as the information gatekeepers, people such as Murray, Blair and the laboratory PR staffs also can help shape the news stories that result from reporters' calls, simply through the role they play in explaining things.

Critics say that gives the PR professionals an opportunity to control the spin — the interpretation that, beyond the facts of a story, creates the impressions left in viewers' or readers' minds.

Blair and other government public relations practitioners adamantly denied "spinning."

Los Alamos's Duncan said he has his staff operate, first and foremost, under a cardinal rule — "no spin, no lies."

But that doesn't mean, in Duncan's definition of the term "spin," that the Los Alamos public relations staff can't and shouldn't serve as an advocate for the laboratory's views.

That includes the Los Alamos view that nuclear weapons play a central and valuable role in U.S. defense policy — a controversial contention critics dispute.

"From our point of view, this is the way we see the world," Duncan said.

That leaves lab critics, such as Santa Fe activist Mello, battling against a well-funded public relations machine.

"The use of (government) department funds to essentially perpetuate the mission of one's own department is basically unseemly, to put it mildly," Mello said, "and even more so when the subject is weapons of mass destruction."

Labs' PR Spotlights Non-Military Work

By John Fleck
Journal Staff Writer

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USA TODAY • THURSDAY, APRIL 3, 1997 • 7A

BOMB ON LINE: The Pentagon's latest nuclear bomb has its own Web page. Unsanctioned, of course. It was set up by activists skeptical of continued development of atomic weapons. It shows key attributes of the B-61 Mod 11 bomb, which is designed for delivery aboard the B-2 Stealth bomber. The Web page is rich with links to other nuclear information and a picture of an alleged Libyan underground military site. The page is the work of the Los Alamos Study Group in Santa Fe. The Web address is http://www.brook.edu/fp/projects/nucwcost/lasg.htm — Steven Komarow

[Erratum: We wrote the text, but Steve Schwartz at Brookings did all the fine work creating hyperlinks.]

Publication: Jnl Legacy 1995 to July 2005; Date: Apr 4, 1997; Section: Final; Page: 35

Section--Metro & New Mexico Edition--Final Date--04/04/1997 Page--C8

Safety Concerns Delay Work on N-Simulator

The Associated Press

LOS ALAMOS -- Work has been temporarily halted at a planned nuclear simulation center because Los Alamos National Laboratory managers say they found safety problems at the construction site.

Inspectors at the Dual-Axis Radiographic Hydrotest, or DARHT, facility found frayed electrical cords, broken ladders and inadequate protection for crews working higher than 6 feet above the ground, lab spokeswoman Kathy DeLucas said.

The contractor, Foley Co. of Kansas City, Mo., was expected to take several days to improve the site, keeping about 60 people out of work during that time.

Construction began on DARHT nine years ago but was halted in January 1995, when a federal judge ruled on behalf of environmental groups that contended environmental studies needed to be conducted.

Work resumed last April after U.S. District Judge Edwin Mechem decided DOE had adequately studied environmental impacts.

DARHT would replace underground nuclear tests with above-ground testing simulation machines. It would consist of a giant X-ray machine to peer inside nuclear weapons parts as they are subjected to non-nuclear explosive tests.

Greg Mello of the watchdog Los Alamos Study Group said Thursday he is pleased the lab is working to make the workplace safe but also is concerned that problems are already showing up with DARHT.

"Operations at DARHT will include some enormously hazardous activities involving explosions of plutonium in giant steel bottles," he said.

DeLucas said Mello's version overstates the case slightly. The plutonium itself would not be detonated, she said, but only subjected to the effects of non-nuclear explosion for study. And in most cases, she said, depleted uranium would be used instead of plutonium.

Publication: Jnl Legacy 1995 to July 2005; Date: Apr 4, 1997; Section: Journal North; Page: 54

Edition--Journal North Date--04/04/1997 Page-- 1

Concerns Over Safety Halt Work At Lab Site

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DARHT is the centerpiece of the U.S. Department of Energy's "stockpile stewardship" program, described by LANL as a way to ensure the safety and reliability of the country's nuclear arsenal in the absence of underground tests. DARHT would use non-radioactive simulations for its tests, lab officials have said.

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DARHT would replace underground nuclear tests with above-ground testing simulation machines. It would consist of a giant X-ray machine to peer inside nuclear weapons parts as they are subjected to non-nuclear explosive tests.

Greg Mello of the watchdog Los Alamos Study Group said Thursday that he is pleased the lab is working to make the workplace safe but is also concerned that problems are showing up with DARHT.

"Operations at DARHT will include some enormously hazardous activities involving explosions of plutonium in giant steel bottles," he said. "We think the lab should reconsider the entire project."

DeLucas said Mello's version overstates the case slightly. The plutonium would not be detonated, she said, but only subjected to the effects of a non-nuclear explosion to study its effect. And in most cases, she said, depleted uranium would be used instead of plutonium.

"None of the explosions would reach criticality, of course," she said, meaning the tests would stop short of nuclear explosions.

"We need to find out," she said. "Very little is known about plutonium, actually. We need to know how it interacts with other materials, how an explosion with plutonium might cause plutonium to react with other metals and materials."

Lab officials said they are not considering permanently stopping the project. The completed facility will cost about $187 million and is planned to become operational in June 1999.

LANL Plans Underground Tests

Journal Staff Report

Scientists with Los Alamos National Laboratory are readying a trio of explosive but non-nuclear experiments involving plutonium 1,000 feet beneath the Nevada desert.

Code-named Rebound, the first round of such tests will occur in June, officials of the U.S. Department of Energy announced Friday.

Anti-nuclear activists argue the experiments, each with a price tag of $15 million to $20 million, will undermine efforts to reduce nuclear stockpiles worldwide.

Activists contend the tests, part of the DOE's stockpile stewardship program, could give fledgling nuclear states such as India added excuses for not signing the Comprehensive Test Ban Treaty and weaken the United States' moral authority to enforce such treaties against other nation's.

"We think these tests are unnecessary, provocative and an example of unexamined Cold War thinking that's now dangerous," said Greg Mello, president of the Santa Fe-based Los Alamos Study Group.

In Rebound, scientists will use chemical high explosives to hammer plate-shaped pieces of new and aged plutonium. They hope to harvest a wealth of data on how plutonium of various ages reacts to pressures close to those in an exploding nuclear weapon — but without nuclear explosions forbidden by international treaty.

Scientists will plug the data into supercomputer programs designed to predict aging's effect on the plutonium fission triggers for thermonuclear weapons, said Robin Staffin, DOE's deputy assistant secretary for defense research and development.

"This is basic physics," he told reporters Friday during a press conference by telephone from DOE headquarters in Washington.

The experiments are known as subcritical tests because they use amounts of plutonium too small to achieve criticality, or a sustained nuclear reaction. In the case of Rebound, scientists will use explosives equivalent to up to 81 pounds of TNT to fire pieces of metal into plutonium "coins" weighing no more than 22 ounces, a fraction of what is needed for a nuclear explosion.

The largest of the three explosions is expected to produce pressures in the plutonium greater than a million atmospheres, Staffin said.

The three explosions will occur simultaneously within a 20-foot-by-20-foot permanently sealed room off of an access tunnel. They involve a total of about 3½ pounds of plutonium and explosives equivalent to 160 pounds of TNT.

Optic fibers will relay information on pressures in the plutonium to scientists on the surface of the Nevada Test Site, where weapons scientists conducted the nation's last underground nuclear test in September 1992.

Anti-nuclear activists attempted to delay preparations for the tests this week. They blocked highways in and out of the test site this week by locking themselves within steel and concrete boxes.

The Christian Science Monitor
United States
Tuesday April 8, 1997 Edition

US Quietly Adds A Bunker-Buster To Nuclear Arsenal

Jonathan S. Landay, Staff writer of The Christian Science Monitor

WASHINGTON -- Even as it preaches global arms control, the Clinton administration has quietly added substantial new punch to the America's atomic arsenal.

The radar-evading B-2 "stealth" bomber was officially put into the US nuclear force April 1. And the Air Force now has an atomic bomb to be used by the B-2 against underground bunkers. The 12-foot-long B61-11 drills deep into the earth before exploding in a small blast whose shockwaves can crush targets hundreds of feet below.

> The US is saying to other nations, 'If you bury bunkers like [Iraq] did, you'll be at risk.'
> *- Kathleen Bailey*

The weapons are the biggest enhancement of US nuclear capability since the cold war's end. The US can now launch precision raids from its own soil against command bunkers in Russia or the kind of chemical-weapons factory the US says Libya is building inside a mountain.

Defense officials suspect an increase in such underground complexes since the pummeling Iraqi facilities took in the Gulf war.

But arms-control experts scorn the weapons as destabilizing perpetuations of the arms race and new impediments to global disarmament.

The dispute has further intensified the debate over post-cold-war US nuclear policy ignited when former senior US generals joined in December with counterparts from Russia and elsewhere to call for the elimination of atomic weapons.

"This does seem to be a sort of 'in your face' policy at a time when the US is trying to convince the rest of the world not to develop nuclear weapons and to decrease their arsenals," says Joe Cirincione of the Henry L. Stimson Center, a Washington think tank that specializes in conflict resolution.

"For those who think that these are problems that disappeared with the end of the cold war, this is a wake-up call," he says.

> 'This [is] a sort of "in your face" policy at a time when the US is trying to convince the rest of the world not to develop nuclear weapons.'
> *- Joe Cirincione*

Mr. Cirincione and other critics contend that by boosting the capability to wage nuclear war, the Clinton administration is raising serious questions about the US commitment to nuclear arms control. One result could be to further stiffen the Russian parliament's refusal to ratify the 1993 START II accord on reducing nuclear warheads, they say.

Critics also contend that enhancing the US atomic arsenal flies in the face of popular domestic sentiments. A survey released last week by the Abolition 2000 anti-nuclear coalition found that a majority of Americans support the elimination of all atomic arms.

Russia, China, and other threats

US officials insist that the administration is committed to the eventual elimination of nuclear arms. They point to the ongoing cuts in warheads under the START I accord with Moscow, US ratification of START II, and the recent offer by the administration to Russia of further reductions in a START III agreement.

But, officials add, with Russia and China improving their atomic capabilities and foes such as Iran and Libya pursuing the development of weapons of mass destruction, the US nuclear deterrent must be kept as effective as possible within the bounds of international arms-control treaties.

"What we are doing ... is saying to other nations that if you bury bunkers like Saddam Hussein did, you will be at risk," asserts Kathleen Bailey of the Lawrence Livermore National Laboratory in Livermore, Calif., one of the nation's nuclear-weapons design labs. "It is a good message in terms of non-proliferation," she says.

New or not?

The dispute over the two new weapons involves several issues. They include whether the B61-11 is a new warhead, as some arms control advocates contend, or simply a modified version of an existing design that was mandated by safety considerations, as the Clinton administration insists.

The question goes to a pledge the US has repeated mantra-like since 1993 that it has no intention of designing or building new warheads.

Critics say the B61-11 breeches that undertaking, weakening the 1968 Nuclear Non-Proliferation Treaty, which won indefinite extension at the United Nations in 1995.

By continuing to improve its arsenal, they say, the US may encourage would-be third-world nuclear powers to ignore the treaty and pursue clandestine atomic programs.

Such a trend could also occur because most of the potential targets against which the B-2/B61-11 combination would be used are in the third world, critics argue.

They also are concerned that the US is undermining the 1996 Comprehensive Test Ban Treaty (CTBT), which prohibits test explosions and was approved by the UN in September.

The B61-11 was produced through a new program in which the US is substituting test explosions for computer simulations to maintain the safety of its warheads. While the program is allowed by the CTBT, critics say its use to produce new weapons could impede or jeopardize the pact's chances of winning ratification by a requisite 44 countries.

Search the Archives | Send Letter-to-Editor | Go to Discussion Forums

Back to top of page

Group gets nuclear conference records

4/18/97

By KEITH EASTHOUSE
The New Mexican

After a year of trying, a Santa Fe citizens group finally has succeeded in obtaining unclassified transcripts and videotapes of a closed meeting of nuclear experts held last spring in Los Alamos.

The Los Alamos Study Group obtained the material after filing a lawsuit last November against the Department of Energy.

The meeting, held last April at Fuller Lodge, focused on the future of nuclear weapons. It was attended by a wide variety of organizations and people, including the Central Intelligence Agency, Russian nuclear scientists and members of the Rand Corp., a think-tank.

The meeting was part of a series of workshops called the Global Nuclear Vision Project that is being sponsored by Los Alamos National Laboratory.

The workshops have been closed to the public so that participants would be "free to speak frankly," as one lab official put it last year.

Study group leader Greg Mello said the material his organization has maintained indicates that one item of discussion at the April 1996 meeting was international cooperation in stockpile stewardship, a U.S. effort to ensure that the country's nuclear arsenal remains accident-proof and performance-ready.

While there evidently was nothing improper about this at the time, Mello said Congress has since passed a law that prohibits the United States from cooperating on stewardship with any other country, apart from Britain and France.

LASG Television News Interview--4/18/97

KOAT TV Channel 7 News interviewed Todd Macon of the Los Alamos Study Group in response to a local visit and interview with Secretary of Energy Frederico Pena. Pena described the Department of Energy's $40 Billion/Ten year budget for nuclear weapons Stockpile Stewardship and Management. In the response interview Macon said that the budget represented poor national priorities and was money wasted on an obsolete and unneeded weapons complex and Cold War ideology. Macon also said the money would be better spent on environmental clean-up and disarmament/dismantlement activities.

Study group members arrested for leafleting

4/20/47

By KATHLEENE PARKER
The New Mexican

LOS ALAMOS — Two members of a Santa Fe anti-nuclear group were arrested Saturday on charges of trespassing at Los Alamos National Laboratory's Bradbury Science Museum.

Cathie Sullivan and Greg Mello of the Los Alamos Study Group were handing out leaflets protesting the lab's role as the nation's leading producer of plutonium pits.

The confrontation between the protesters and museum director John Rhoades was so polite that some museum visitors did not realize that the arrests were happening, although a group of Rotarians from Brazil — including a police officer — seemed shocked by the arrest and handcuffing of the protesters.

"It is terrible. They seem to be such nice people," said one of the Brazilians, Celia Santos, who was baffled as to why handing out the leaflets could be illegal.

As another study group member videotaped the arrests, police Capt. Joe Girard asked Mello if he realized he was committing criminal trespass.

"No, I do not believe I am," replied Mello, who earlier said he believed that the First Amendment — and legal precedent — guaranteed his right to hand out the leaflets at the museum in downtown Los Alamos.

Mello and Sullivan met Friday with Rhoades and lab attorneys and were warned that lab policy does not allow handing out leaflets on government-controlled property, Rhoades said.

The arrests are part of an ongoing dispute between the study group, museum staff and members of a pro-nuclear group, the Los Alamos Education Group.

In 1995, the education group demanded — and received — half the space used by the study group in the museum.

In 1996, the lab began a lottery under which groups that want the space could compete for it, but the study group refused to participate and the education group was given the space, Rhoades said. The study group also refused a small rebuttal area, he said.

But only the two groups sharing the space wanted it, making the lottery unneeded, Mello said. The lottery was just to force the study group from the museum, he said.

Mello and Sullivan posted $300 bond and were released from jail Saturday afternoon.

Two members of LA Study Group arrested

Monitor 4/20/97

By CHARMIAN SCHALLER
Monitor Editor

Two members of the Los Alamos Study Group (a Santa Fe organization) were arrested Saturday at the Bradbury Science Museum.

A news release from LASG said they were arrested while "attempting to hand out antinuclear leaflets." The news release also said they were charged with trespassing and taken to the Los Alamos County Jail.

Jail officials said late Saturday that the two, Greg Mello and Cathie Sullivan, posted bond of $300 each and were released about 5 p.m. Saturday.

The LASG news release said, "The leaflets urged museum visitors to contact their elected officials (urging them) to decrease nuclear weapons budgets and stockpiles. The two were not disruptive of the museum activities."

The news release said the Nuclear Nonproliferation Treaty commits nuclear powers including the United States to disarmament, but there are no firm plans to reduce either U.S. or Russian stockpiles to below about 10,000 nuclear weapons.

Los Alamos National Laboratory, the news release said, "is now poised to begin the manufacture of nuclear weapon 'pits,' made of highly toxic plutonium, the job formerly done by the Rocky Flats Plants near Denver ... In effect, these planned 'upgrades' will essentially make LANL into the largest producer of weapons of mass destruction in the world."

Laboratory spokesman John Gustafson confirmed Saturday night that the two had been arrested. He said, "They were distributing leaflets immediately outside the door of the science museum. They were asked to move, and they refused."

He said they weren't on the public sidewalk but were, instead, on private property (owned by TRK Management, which leases the building to the museum) near the door of the museum.

"They've been trying to get permission for some time to distribute leaflets in the museum," Gustafson said.

"We've said no" because the laboratory felt that distributing leaflets would be "disruptive to normal activities in the museum."

Gustafson said the last in a series of discussions between LASG and laboratory officials was held Friday.

It was the Los Alamos Police Department that made the arrest, Gustafson said. The incident was not unexpected, he said, and, "The police were on standby waiting to get the word."

Gustafson said, "We're within our legal rights to say no." It's fine for LASG to distribute its leaflets, he said. "We just ask that they do it somewhere else."

Los Alamos Monitor

SUIT

(from Page 1)

of it, Coghlan said.

DOE spokeswoman Chris Kielich said today that now that the matter is in litigation again, DOE won't comment.

However, Energy Secretary Federico Peña, during his visit to Los Alamos on April 18, defended DOE's environmental review of the future nuclear weapons complex.

Peña said he disagreed with the environmental groups' contention that the PEISs were inadequate.

Peña said DOE did "extensive work" on the environmental reviews and said DOE is "very confident" that DOE made the right decisions based on the best scientific data.

Peña also said there always are people who object to major policy changes, such as the post-Cold War switch to stockpile stewardship, which uses scientific means instead of actual nuclear tests to keep nuclear weapons reliable and safe.

Coghlan said the 1990 stipulation required DOE to prepare two PEISs: a Waste Management PEIS and what was then called the Reconfiguration PEIS. The Reconfiguration PEIS was later split into several other PEISs, including the Stockpile Stewardship and Management PEIS and the Tritium PEIS.

Coghlan said DOE completed the draft version of the Waste Management PEIS in August 1995, but hasn't finished the document.

And, he said, one of the reasons the Stockpile Stewardship and Management PEIS is inadequate is because it depends on the incomplete Waste Management PEIS to describe how waste will be treated in the future.

"DOE ... has not honored its court-recorded stipulation," Coghlan said.

Former Energy Secretary Hazel O'Leary, shortly before she resigned as energy secretary, signed a record of decision that approved the Stockpile Stewardship and Management Program.

Coghlan said the Stockpile Stewardship and Management PEIS fails to adequately consider alternatives to stockpile stewardship.

"DOE posits what it wants, and knocks down everything else," Coghlan said.

Coghlan said he objects to the fact that DOE argued some facilities were too far out in the future to be considered in the Stockpile Stewardship and Management PEIS. In the case of the Advanced Hydrotest Facility, being planned by LANL scientists, the facility wasn't considered in the PEIS, Coghlan said. However, he added, "Already, significant amounts of money are being spent" on it.

Anti-nuke groups reopen lawsuit

4/30/97

By STEPHEN T. SHANKLAND
Monitor Managing Editor

Several environmental and anti-nuclear groups planned to reopen a 1989 lawsuit today against the Department of Energy.

Jay Coghlan of Santa Fe-based Concerned Citizens for Nuclear Safety said today that the groups planned to file a complaint and a motion requesting a preliminary injunction.

Coghlan said the complaint argues that DOE failed to live up to a 1990 stipulation that required two programmatic environmental impact statements (PEISs) dealing with the future of the nuclear weapons complex.

The complaint also argues that the Stockpile Stewardship and Management PEIS — one of the PEISs that resulted from the agreement — is inadequate.

Greg Mello of the Santa Fe-based Los Alamos Study Group, another group involved in the lawsuit, said the motion for preliminary injunction seeks to stop Stockpile Stewardship and Management Programs.

With regard to Los Alamos National Laboratory projects, the motion asks the court to enjoin preparation for nuclear weapon plutonium pit production and the Atlas project, Mello said.

The lawsuit, in addition to the complaint and motion for preliminary injunction, is filed in U.S. District Court for the District of Columbia. Judge Stanley Sporkin heard the case in 1989 and 1990, and will continue to hear this phase

(Please see SUIT, Page 7)

Paper: Albuquerque Tribune, The (NM)
Title: Environmental groups to file suit against DOE
Date: April 30, 1997

WASHINGTON -- A coalition of 40 environmental groups prepared today to sue the federal government, charging the U.S. Department of Energy broke its promise to study alternatives to expanding its nuclear-weapons program at Los Alamos, Sandia and other national labs.

The lawsuit, expected to be filed today in the U.S. District Court for the District of Columbia, also contends that DOE has refused to set national standards for its nuclear-waste cleanup program.

The environmental groups are to ask the court to take two steps:

* Ban DOE from the construction of any new facilities in its nuclear-weapons program until it analyzes "reasonable" alternatives. The ban would affect several hundred million dollars' worth of construction projects at Los Alamos and about $100 million worth at Sandia National Laboratories in Albuquerque.

* Force DOE to determine the environmental impact of its nuclear-waste cleanup program.

Among the groups filing the lawsuit are two New Mexico environmental organizations: the **Los Alamos Study Group** and Concerned Citizens for Nuclear Safety.

The lawsuit is a sequel to one filed in 1990 by the environmental groups. At that time, DOE signed a legal agreement requiring it to analyze plans for new nuclear-weapons research facilities, as well as do an environmental-impact statement for its nuclear-waste cleanup program.

"Through this lawsuit, we are seeking to have DOE honor the agreement they made in 1990," said Jay Coghlan of Concerned Citizens for Nuclear Safety, based in Santa Fe.

"We also want to bring the whole matter before the public gaze, and reverse the situation where money for weapons takes precedence over money for cleanup."

DOE officials couldn't be reached today for comment on the lawsuit.

But the heads of the Sandia and Los Alamos labs recently have urged Congress to beef up funding for the nuclear-weapons program.

The lab directors contend their dollars are stretched too thin to keep up with current nuclear-weapons research as well as build the new research facilities they say they need to ensure the safety of the current stockpile.

Among the facilities to be built at Los Alamos is one that would make the lab the nation's only manufacturer of plutonium triggers needed to detonate nuclear weapons.

Author: Karen MacPherson TRIBUNE REPORTER
Section: Local News
Page: A3

Activists Aim To Halt Nuke Stockpile Plan

5/1/97

Journal staff and wire reports

WASHINGTON — A coalition of anti-nuclear and environmental groups said Wednesday it's suing to halt a 10-year, $40 billion program the Clinton administration says will ensure the readiness of America's nuclear arsenal.

The lawsuit, which claims the Energy Department failed to take adequate steps to ensure environmental protection, asks the court to immediately halt government plans to conduct two underground explosions using nuclear materials scheduled for later this year.

The action also asks that the department halt construction of hundreds of millions of dollars of projects to be built at Los Alamos and Sandia national laboratories. They include new, expanded facilities at Los Alamos for manufacturing 50 plutonium triggers a year for nuclear weapons.

The Energy Department declined to comment.

"You can't comment on something that hasn't been filed," department spokesman Patrick Dorinson said.

However, Energy Secretary Federico Peña told reporters at Los Alamos two weeks ago that the department knew it probably would be sued over the programs and did a thorough job of justifying them.

The DOE looks forward to proving it, Peña said.

The lawsuit is expected to be filed this morning by the Washington-based Natural Resources Defense Council, a lead-

See **ACTIVISTS** *on* **PAGE 3**

Activists Aim To Halt Nuke Stockpile Plan

from **PAGE 1**

ing environmental group, and 38 other organizations, many of them grass-roots groups that have been active near federal nuclear weapons production and storage facilities around the country.

Among those are the Los Alamos Study Group and Concerned Citizens for Nuclear Safety, two Santa Fe anti-nuclear groups whose aim is scaling back nuclear weapons work at Los Alamos National Laboratory.

"The department and the labs are not really being honest with the American people about what they need to do to maintain a nuclear arsenal," said the study group's Greg Mello. "We have other components of national security than just aid to dependent physicists."

The lawsuit alleges the Energy Department has developed the broad $40 billion, 10-year strategy for maintaining the country's nuclear weapons stockpile without developing adequate environmental impact assessments and considering reasonable alternatives as required by a 1990 court stipulation between the groups and the department.

The groups are seeking a reopening of that case to enforce the stipulation.

In cases in which environmental assessments were made, said Natural Resources Defense Council attorney Barbara Finamore, the government did not adequately analyze alternatives — and exempted many programs from environmental assessments.

After the 1989 suit, the Energy Department was directed to make detailed environmental impact assessments as part of its program to clean up nuclear wastes at weapons sites and develop programs for the continued maintenance of the reduced number of nuclear warheads.

"The department still hasn't complied with its commitments," Finamore said at a news conference.

Many of the plaintiffs in the lawsuit are ardent advocates of phasing out nuclear weapons and believe the Energy Department strategy is aimed to circumvent disarmament and leave open development of more sophisticated weapons in the future.

Activists also contend the stockpile stewardship program gives Russia and aspiring Third World nuclear powers an excuse to build or retain large nuclear arsenals rather than disarm.

The lawsuit, if successful, would jeopardize the broad strategy outlined by the Energy Department for dealing with its nuclear stockpile as the country reduces the size of the arsenal.

It asks the court to block two planned underground explosions, using nuclear materials, at the Nevada Test Site later this year. The chemical explosions are aimed at providing nuclear scientists with information that is to be used to simulate nuclear explosions in the laboratory.

Peña called the two underground explosions "an essential component of the department's program for ensuring the safety and reliability of the (nuclear weapons) stockpile" in an era when actual nuclear tests have been ruled out.

Activists continue to criticize DARHT

5/15/97

Staff and wire report

New Mexican

A year after court-delayed construction resumed on a nuclear materials test center, an anti-nuclear group repeated its contention that the Dual-Axis Radiographic Hydrotest facility could be dangerous.

Greg Mello of the Los Alamos Study Group said he conducted his own study of DARHT. Mello, an engineer, issued a news release Wednesday envisioning the possibility of an accident that "leads to widespread plutonium contamination, economic impact and fatal cancers."

Lab spokesman Jim Danneskiold responded: "We performed an extensive (environmental impact statement) that satisfied the courts, and this appears to be an attempt to do with publicity what the Study Group couldn't accomplish in court."

Danneskiold said the accident described by Mello is a worst-case scenario and that the odds of such an event occurring have been determined to be less than one in a million.

Mello also released a 27-year-old lab memo that evaluated the hazards of explosive experiments involving plutonium at an earlier generation testing facility at the lab known as PHERMEX.

The memo said that "a serious release of plutonium would take place in the wake of a major failure of the confinement vessel."

In a paid advertisement published on Wednesday in the *Santa Fe Reporter*, the study group said the memo was evidence that the experiments in 1970 "were considered too dangerous" — implying that the lab felt it was too risky to conduct them.

However, Danneskiold said contained explosive experiments involving plutonium at PHERMEX were conducted both before and after the 1970 memo. He said the memo was similar to an accident evaluation study done recently by the Department of Energy and is merely evidence that such evaluations have been a longstanding practice at the lab.

U.S. District Judge Edwin Mechem had granted a preliminary injunction in January 1995 that stopped work on DARHT, but the work resumed in April 1996. It was halted again but restarted last month after construction crews violated some safety guidelines.

DARHT is a key to the DOE's "stockpile stewardship" program. The lab describes the program as a way to ensure the safety and reliability of the country's nuclear arsenal in the absence of underground tests.

The facility would use non-radioactive simulations for its tests, lab officials have said.

Lab spokeswoman Kathy DeLucas said Mello overstates the case. The plutonium itself would not be detonated, she said, but only subjected to the effects of non-nuclear explosions. And in most cases, she said, depleted uranium would be used, not plutonium.

5/15/97

Critics Renew Lab Warning

Project Creates Nuke Threat, Group Says

By Ian Hoffman
Journal Staff Writer

An anti-nuclear group warned Wednesday that an accident or terrorist act at a new, experimental facility at Los Alamos National Laboratory has the potential to shower plutonium over the lab and from Los Alamos to Española and Santa Fe.

The Los Alamos Study Group's contentions about the Dual-Axis Radiographic Hydrotest facility, or DARHT, are not entirely new.

The group raised similar concerns when it won a federal injunction halting construction of DARHT in January 1995.

U.S. District Judge Edwin L. Mechem lifted the injunction after the U.S. Department of Energy studied DARHT's environmental effects, and construction resumed in April 1996.

Greg Mello, president of the study group, ran computer models of a cloud of plutonium dispersed by an accidental detonation at DARHT and found about the same thing DOE did in its studies.

DOE figured a plutonium explosion capable of rupturing a protective steel

See **CRITICS** *on* **PAGE 3**

Critics Renew Lab Warning

from **PAGE 1**

vessel could occur at DARHT less than once in roughly a million years of normal operations.

If it did, five to 12 people living from White Rock and Española to Santa Fe could inhale enough specks of plutonium to die prematurely from lung cancer.

"I think this accident is unlikely," Mello conceded. "We're not sure when or in what way the first accident will take place, but as long as there is this level of intensity of plutonium operations, an accident is bound to happen."

Jim Danneskiold, a lab spokesman, said the lab and DOE took care to evaluate the impact of any conceivable accidents at DARHT in the environmental studies later accepted by Mechem.

"Greg Mello is trying to do with a public-relations campaign what he couldn't do in the courts," Danneskiold said. "In this case we're talking less than a one-in-a-million chance of this accident occurring."

The $187 million DARHT fires intersecting x-rays into the implosion of nuclear-weapons parts, generally made out of depleted uranium but also made of the far more toxic weapons-grade plutonium and plutonium-242, all in amounts incapable of generating a nuclear explosion. The implosion would be powered by high explosives, just as in a weapon.

Operation of the first axis of DARHT is slated for 1999.

LANL scientists plan to contain the experiments in an eight-foot, double-walled steel vessel, weighing about 23 tons. The vessel is constructed of a steel used to armor the hulls of naval ships and intended to be used for the pressure hulls of submarines.

DOE rated the likelihood of a vessel failure as not credible. According to a 1970 lab memo obtained by the study group, lab scientists considered stopping similar explosive tests with plutonium at the PHERMEX facility, the precursor to DARHT, because of worries over vessel failure.

But Danneskiold said the lab never stopped the experiments because they examine the behavior of plutonium under the high pressures and temperatures of high-explosive implosion.

"The lab has done these experiments before 1970, since 1970 and now," Danneskiold said.

An accidental release of plutonium from DARHT could contaminate nearly 100 square miles at roughly the level at which the U.S. Environmental Protection Agency would order a cleanup, Mello said.

More than likely, winds would carry the plutonium to the north or northeast, over Los Alamos and the pueblos of Santa Clara and San Ildefonso, according to Energy Department studies. It could result in 22 cancer fatalities in Los Alamos, six in Española and one in Santa Clara Pueblo.

Mello did not calculate precise estimates of such latent cancer fatalities because of the difficulty of estimating the number of people outdoors at the time the plutonium passes.

Fund Crunch Halts Lab Renovations

Officials Unsure Why First Phase Is $8 Million Over

5/16/97

By Ian Hoffman
Journal Staff Writer

Budget overruns estimated at $8 million have forced Los Alamos National Laboratory to shut down renovations at its largest lab building.

Lab officials admitted Thursday to uncertainty over how much work remains and how they so quickly spent nearly all the $51.6 million budget for initial renovations at the Chemistry and Metallurgy Research Building.

"It's unfortunate we didn't have people who could tell us those things," said T.J. Trapp, a manager in the lab's nuclear materials and stockpile management program who is responsible for major nuclear-facility upgrades.

"It happened late (in the renovations), and we don't have all the answers. We have to go get those answers now," Trapp said.

LANL faces what could be months of figuring out what remains to be done at the building and lobbying the U.S. Department of Energy in Washington for money to do it.

The DOE's Los Alamos office was preparing to step in when Paul T. Cunningham, director of the lab's nuclear materials and stockpile management program, ordered the shutdown April 26. Work ended May 1.

"I don't think it was managed as it should be," said Jim Phoenix, the DOE's facility representative for the 550,000-square-foot building. "The laboratory was not watching over it."

The building, designed in 1949, began operations in 1952 as the lab's main facility for chemical research on radioactive materials and weapons components. Its wiring and much of the plumbing that carries acid wastes to a treatment plant are more than 40 years old. The renovations are intended to keep the building oper-

See **FUND** *on* **PAGE 3**

Fund Crunch Halts Lab Renovations

from **PAGE 1**

ating for 20 to 30 years more.

Lab officials call the first phase of the renovations urgent maintenance, consisting mostly of electrical work, coupled with repair of its fire-suppression system and new air-quality monitors for glove-box exhausts, among other things.

The building plays a key role in testing and refurbishing the aging parts of nuclear weapons.

Workers found they had to perform more work than anticipated in areas believed contaminated with radioactive materials, Trapp said. And they found more outdated electrical components that required replacement than anticipated.

"Many of those systems, you can't really tell their condition until you take the power down and open them up to look at them," Trapp said.

One anti-nuclear activist questions the $122.5 million budget for the second phase of the building renovations, which include shoring up the building against earthquakes. About $12 million of that goes to LANL staff for design and operator support, not including $1.75 million for an operational readiness review and $1.23 million for start-up costs.

The renovations' high costs, plus the overruns in the first phase, could undermine the lab's pursuit of more funds for stockpile stewardship and management, its bread-and-butter fund source for at least the next 10 years, said Greg Mello of the Los Alamos Study Group.

"It may cost them. It depends on the lab's ability to represent all of its expenses no matter how outrageous as essential for its plutonium-manufacturing mission," Mello said.

Trapp declined to comment on potential political fallout from the cost overruns. Lab officials are trying to work what they're learning from the renovations into other upgrades, such as those planned for its top-security plutonium facility at Technical Area 55, he said.

"What we're finding is it's costing us more to fix things in some of our nuclear facilities than we originally anticipated," Trapp said.

The lab will need several months to determine the cost of remaining work, which project officials estimate ranges from $3 million to $11 million, Trapp said. The lab faces internal scrutiny to find out why costs were unanticipated, why they mounted so quickly and why project managers kept spending as they closed in on the budget limit.

Asked whether any project managers would be disciplined, Trapp said, "We're still looking at issues associated with that."

5/18/97

Los Alamos Monitor

Activists: DARHT hurts economy, public health

By The Associated Press

A year after a judge allowed construction to resume on a nuclear materials test center, antinuclear activists said the Dual-Axis Radiographic Hydrotest facility could hurt not only the public health but the economy.

"What has not been adequately recognized up to now is that these activities could have economic fallout prior to any accident," said Greg Mello of the Los Alamos Study Group.

Mello, an engineer, released his own DARHT study Wednesday, envisioning the possibility of an accident that "leads to widespread plutonium contamination, economic impact and fatal cancers."

Lab spokesman Jim Danneskiold responded: "We performed an extensive (environmental impact statement) that satisfied the courts, and this appears to be an attempt to do with publicity what the Study Group couldn't accomplish in court."

U.S. District Judge Edwin Mechem had granted a preliminary injunction in January 1995 that stopped work on DARHT, but the work resumed in April 1996. It was halted again briefly after construction crews violated some safety guidelines, but resumed last month.

DARHT is a key to the DOE's "stockpile stewardship" program. The lab describes the program as a way to ensure the safety and reliability of the country's nuclear arsenal in the absence of underground tests.

The facility would use nonradioactive simulations for its tests, lab officials have said.

Mello has said operations at DARHT would include "some enormously hazardous activities involving explosions of plutonium in giant steel bottles."

LETTERS TO THE EDITOR

Professor objects to UC's involvement in bomb production at Los Alamos

Editor:

The University of California is preparing to open a nuclear bomb production line! Amazingly, although the Cold War has ended, instead of cutting back, Los Alamos National Laboratory, operated by the University of California, is setting up a production line to manufacture "pits," the plutonium hearts of nuclear weapons. If the production facility reaches the proposed scale—50 pits a year—the University of California will likely be the largest producer—as measured by destructive capability—of weapons of mass destruction in the world.

Pit production is a far different business than design and testing of nuclear weapons, the laboratory's historic role. Bomb production work isn't a university job. UC should turn the facility—the Los Alamos National Laboratory—over to someone else to operate.

Motivation for the pit factory at Los Alamos comes from the shut down of a Rocky Flats (Colorado) plant that was too contaminated with plutonium to keep running. Los Alamos has plenty of motivation to do the job. It will provide many jobs at a time of downsizing and layoffs.

UC is aggressively defending its move into bomb production work. A few weeks ago Los Alamos security personnel arrested demonstrators passing out literature opposing pit production in front of the Bradbury Science Museum.

When I called the lab to ask about the arrests, Public Information Officer John Gustafson told me the lab is worried about violence. Were the demonstrators violent, I asked. No, I was told, the protesters were gentle and polite. But Los Alamos won't tolerate dissent. Not even at their public, unclassified museum in downtown Los Alamos, a long way from the secret factory.

Despite the university imprimatur, Los Alamos is in no sense an academic institution. It's a weapons laboratory retooling as a bomb factory. Academic freedom has no place.

On campus, freedom of expression is fundamental. Stop by Sather Gate at UC Berkeley any lunch hour. Listen to the diversity of views; read the range of literature passed out. Alas, ideas that can be discussed at Berkeley—and every UC campus—are cause for arrest at Los Alamos.

In time of national emergency it made sense for UC to operate weapons laboratories. Under peace-time conditions it does not. Concerns about university involvement in the arms race have been voiced by faculty members for decades. A decade ago I served on a systemwide Academic Senate committee which concluded that running weapons factories by the university is inappropriate public service during peacetime. Los Alamos soon will be. The nation may or may need this capability. The university most assuredly does not.

The university should not be in the business of arresting peaceful demonstrators passing out literature. This is a travesty of academic freedom.

Paul P. Craig
Professor Emeritus of Engineering
Applied Science

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Dateline *also welcomes longer forum pieces up to 1,000 words from faculty and staff. Letters and forum articles should be submitted on IBM or Macintosh disks or through e-mail,* sgrockwell@ucdavis.edu. *All submissions are subject to editing, and unsigned letters will not be published.*

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5/30/97

The Washington Post

OUTLOOK

Commentary and Opinion

The Birth Of a New Bomb

Shades of Dr. Strangelove! Will We Learn to Love the B61-11?

PHOTO ILLUSTRATION OF SLIM-FIGURE "DR. STRANGELOVE, OR HOW I LEARNED TO STOP WORRYING AND LOVE THE BOMB," BY AMY WALTERS/FOR THE WASHINGTON POST

By Greg Mello

The Cold War is over and the U.S. government says it is no longer in the business of building new nuclear weapons. So why is it deploying a versatile new kind of nuclear bomb intended to penetrate the earth and destroy underground facilities?

This spring, the United States began fielding the first new nuclear capability added to the U.S. arsenal since 1989—a slim, 12-foot-long weapon known as the B61 "mod-11" gravity bomb. It was developed and deployed without public or congressional debate, and in contradiction to official assurances that no new nuclear weapons were being developed in the United States.

The government contends the B61-11 is merely a "modification" to the B61-7 gravity bomb. And yet, these modifications provide a substantial new military capability. This is significant for three reasons:

■ From a military standpoint, the B61-11 is uniquely able to destroy underground targets, and it can be set to do so with a small nuclear yield. With such an underground blast, much of the resulting fallout might be relatively localized. For these reasons, there are those who might be tempted to rationalize using the bomb. Even before it was fully developed, it was used to threaten Libya over its construction of an alleged underground chemical weapons factory.

■ From a diplomatic standpoint, this new weapon violates the spirit of the delicately forged international ban on nuclear testing. And it further undermines the long-standing U.S. commitment to nuclear disarmament embodied in the Nuclear Non-Proliferation Treaty (NPT).

■ From a development and production standpoint, the B61-11 may be the first such new capability, but it will not be the last. It opens the way for other new weapons now under development in the Department of Energy's massive "stockpile stewardship and management program." Current funding for this program exceeds the average spent by DOE during the Cold War. Last month, nuclear pioneer Hans Bethe, joined by Frank von Hippel of Princeton and others, warned that some of this research could lead to entire new classes of weapons and should be stopped.

But the B61-11 is a reality now, and raises fundamental questions about the sincerity of the U.S. commitment to the Comprehensive Test Ban Treaty (CTBT), signed by President Clinton last September and due to be considered for final ratification by the Senate this fall.

While producing the B61-11 apparently

See BOMBS, C6, Col. 1

Greg Mello directs the Los Alamos Study Group, a nuclear weapons policy research and education organization located in Santa Fe. This article is adapted from one that appears in the May/June issue of the Bulletin of the Atomic Scientists.

Quite a Bombshell

BOMBS, From C1

did not involve modifications to the "physics package"—the nuclear explosive itself—there is no question that the bomb provides a new nuclear capability. Although the treaty is silent on the question of new weapons, U.S. negotiators have explicitly said it is intended to prohibit such development.

The B61-11 fulfills a longstanding desire of the military for an earth-penetrating weapon, a bomb that can get at command centers or other installations designed to be invulnerable to all but the largest nuclear weapons. The previous weapon with this mission was the B53, the highest-yield weapon in the U.S. arsenal. Although not a true earth penetrator, it was capable of taking out underground targets through brute force; a nine-megaton bomb makes a large crater. The huge B53 weighs 8,900 pounds and can be delivered only by lumbering B-52 bombers.

The smaller and lighter (1,200-pound) B61-11 can be delivered by the B-2A Stealth bomber, or even by F-16 fighters. It is far more suitable for post-Cold War missions, penetrating as it does tens of meters into the earth and creating devastating shock waves with substantially less explosive power—anywhere from just 300 tons to about 340 kilotons. These lower yields are said to enhance its credibility as a deterrent. The B53, goes the tortured logic, was too big and too dirty to use. It would cause massive "collateral damage" above ground—or, in simpler language, the death of many innocent civilians. The more modest B61-11 is considered relatively "useable" in such a context.

But useable where? What is the mission of the B61-11? For years, nuclear planners sought to develop a weapon to hit deeply buried Soviet command-and-control centers. But today Russia and the United States are no longer adversaries.

Increasingly, U.S. nuclear strategists speak of holding targets at risk in "rogue states." But since 1978, U.S. policy has expressly forbidden U.S. forces from using nuclear weapons against non-nuclear states that are signatories to the NPT, unless they are allied with a nuclear state engaged in an act of aggression. Given this, the events surrounding the arrival of the B61-11 are, at best, difficult to explain.

Interest in a B61-based earth penetrator appears to have been revived with an October 1993 request by Harold Smith, assistant to the secretary of defense for atomic energy, to explore alternatives to the B53. On Nov. 29, 1994, the Nuclear Weapons Council Standing Safety Committee endorsed the B61 plan. And on Feb. 6, 1995, Deputy Defense Secretary John Deutch signed off on it.

On April 18, 1995, DOE submitted a classified request to six key members of Congress to find funds for the B61-11. All necessary approvals were in hand by late July. On Nov. 15, 1995, shortly after work on the B61-11 was formally approved, Smith requested that the schedule be accelerated. He asked that the first unit be delivered "as soon as possible, with a goal of Dec. 31, 1996."

The response from the nuclear labs was positive. As the Los Alamos employee newsletter "Weapons Insider" put it: "NWT [the Los Alamos Nuclear Weapons Technology program] is committed to meeting the aggressive schedule, and a significant reprogramming of resources has allowed us to accelerate our progress."

The project is one the labs are keenly interested in. In recent years, some military strategists have advocated deployment and possible use of very small tactical nuclear weapons against Third World adversaries, especially in earth-penetrating roles. Some of this advocacy—perhaps most of it—has come from the weapons labs. In the fall 1991 issue of Strategic Review, for instance, Los Alamos strategists Thomas Dowler and Joseph Howard wrote: "Would policymakers employ nuclear weapons to protect U.S. contingency forces if conventional weapons proved inadequate, or would the nature of our present nuclear arsenal 'self-deter' policymakers from using those weapons?

"One possible answer to these questions might be the development of nuclear weapons of very low yields .... The existence of such weapons—weapons whose power is effective but not abhorrent—might very well serve to deter a tyrant who believes that American emphasis on proportionality would prevent the employment of the current U.S. arsenal against him.

"We doubt that any president would authorize the use of the nuclear weapons in our present arsenal against Third World nations. It is precisely this doubt that leads us to argue for the development of subkiloton weapons."

In July 1992, Los Alamos conducted a high-level briefing called "Potential Uses for Low-Yield Nuclear Weapons in the New World Order." One theme of the briefing was that in future showdowns with Third World states, "we need options besides defeat or use of inappropriately large [nuclear] weapons."

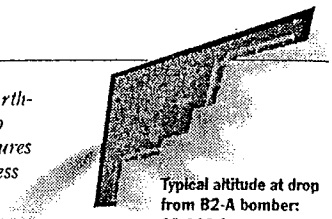
One option, suggested the briefing, was to develop and deploy "micronukes" with a yield of some 10 tons of high explosives; "mininukes" with a yield of 100 tons; and "tiny nukes" with a yield of 1,000 tons. An earth penetrator with a yield of just 10 tons could, according to a Los Alamos briefing chart, "hold buried leadership and C3 at risk." And it could do that while keeping "collateral damage very localized." Translation: You could threaten to blow up an enemy's headquarters bunker and disrupt his command, control and communications without destroying the surrounding area.

Why did Smith insist in November 1995 on setting such "aggressive deadlines" for the B61-11 project? Perhaps the answer can be found in a series of statements offered the following spring by administration officials, including Defense Secretary William Perry. On March 28, 1996, Perry testified in the Senate in support of the Chemical Weapons Convention. At one point, he said: "We have an effective range of alternative capabilities to deter or retaliate against use of the CW [chemical weapons]. The whole range would be considered .... We have conventional weapons, also advanced conventional weapons—precision guided munitions, Tomahawk land-attack missiles—and then we have nuclear weapons."

A few days later, Robert Bell of the White House National Security Council spoke about the United States having signed on to the African Nuclear-Weapon-Free-Zone (ANWFZ) Treaty, a treaty that Libya had signed. "Each party pledges not to use or threaten to use nuclear weapons against an ANFWZ party. However, [the treaty] will not limit options available to the United States in response to an attack by an

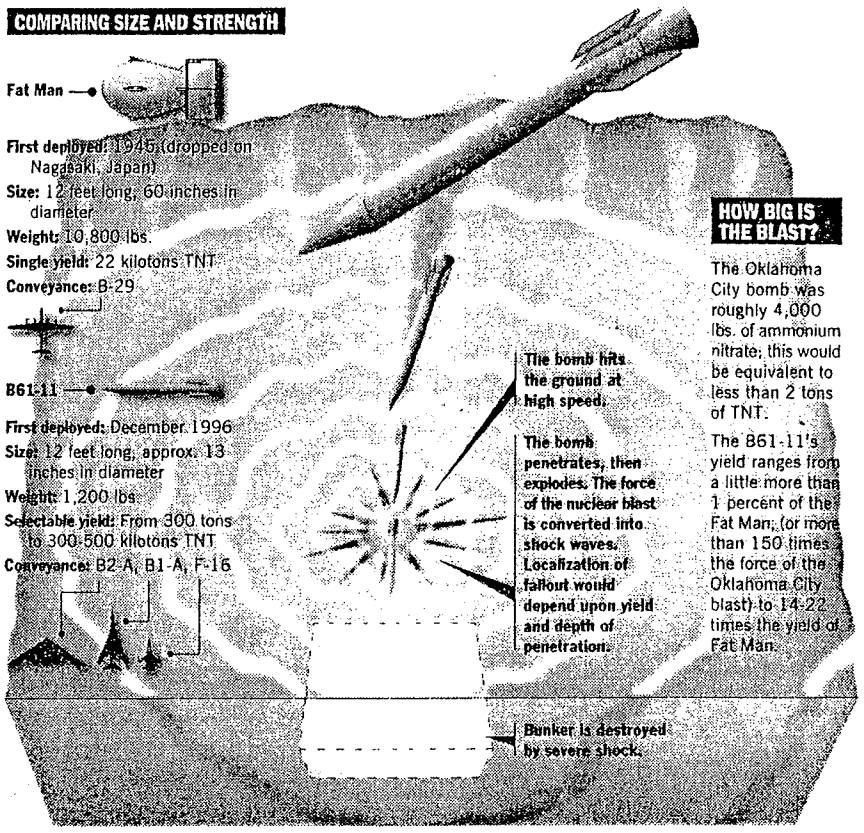
MEET THE B61 'MOD-11'

The B61-11 is the latest modification in the U.S. history of earth-penetrating bomb development. It can pierce the ground so deeply that it produces devastating shock waves that destroy structures underground, while its lower yield capabilities may produce less "collateral damage" under some conditions.



Typical altitude at drop from B2-A bomber: 10,000 feet.

COMPARING SIZE AND STRENGTH



HOW BIG IS THE BLAST?

The Oklahoma City bomb was roughly 4,000 lbs. of ammonium nitrate; this would be equivalent to less than 2 tons of TNT.

The B61-11's yield ranges from a little more than 1 percent of the Fat Man, (or more than 150 times the force of the Oklahoma City blast) to 14-22 times the yield of Fat Man.

SOURCES: Los Alamos Study Group, Jane's All the World's Aircraft, Nuclear Weapons Databook

BY ROBERT DORRELL—THE WASHINGTON POST

ANWFZ party using weapons of mass destruction."

At a breakfast meeting with defense writers, Smith went further. He was quite specific regarding the possible preemptive use of nuclear weapons. He spoke of the potential menace presented by a Libyan chemical weapons factory under construction underground at Tarhunah, 40 miles southeast of Tripoli. At present, said Smith, the United States had no conventional weapon capable of destroying the plant from the air, and such a weapon would not be ready in less than two years. However, by the end of the year, the United States would have a nuclear warhead based on the B61 that would be able to do the job.

At the same time, administration officials began hedging on the "no-first-use" pledge that President Clinton had reaffirmed only a year earlier. When arms-control advocates questioned this apparent change in attitude, the Pentagon tried to clarify matters. At a press briefing on May 7, 1996, Defense Department spokesman Kenneth Bacon said there had been some "confusion" in the press regarding the issue. "Should military options be necessary [against Libya], we can accomplish this with conventional means. There is no consideration to using nuclear weapons and any implication that we would use nuclear weapons against this plant preemptively is just wrong."

"Preemptively" seems to have been the operative word at the May 7 briefing. Bacon also reiterated that the United States for years had reserved the right to respond with "devastating force" if weapons of mass destruction were ever actually used "against us or our forces."

Bacon went on to quote Perry, who said on April 26 at Maxwell Air Force Base: "In every situation that I have seen so far, nuclear weapons would not be required for response. That is, we could have a devastating response without the use of nuclear weapons, but we would not forswear that possibility."

Whatever message the administration spokesmen were trying to send regarding the nuclear option, work on the B61-11 project continued on schedule. At the same time, President Clinton was signing the test-ban treaty. That treaty bans nuclear testing, but does not specifically address weapons development or new deployments. However, stopping new weapons is clearly a part of the treaty's intent.

Consider, for example, a January 1996 statement made in Geneva by John Holum, director of the U.S. Arms Control and Disarmament Agency, as he pushed for completion of the CTBT: "Even the open literature points to a broad array of new weapons developments . . . . Many would involve directed energy weapons—ways to focus the release of energy with greater precision than is now possible, to enable military effects well beyond those available now. Without nuclear testing, the nuclear weapon states will not be able to pursue confidently such technologies as the nuclear-explosion-pumped X-ray laser, the so-called nuclear shotgun, enhanced electromagnetic pulse weapons, microwave weapons, and enhanced radiation weapons . . . . And the true zero [yield] test ban will also place out of reach new 'mininuke' and 'micronuke' concepts.

"So let there be no mistake—the CTBT will help impede the spread of nuclear weapons. But its great practical impact will also be for arms control—to end development of advanced new weapons and keep new military applications from emerging."

The B61-11 may be a mere modification, a new shell for an older physics package. It may not be the kind of exotic new weapon that Holum listed. But it is a weapon with a new capability. Should the need arise, it will allow U.S. military forces—to borrow Holum's words—to "focus the release of energy with greater precision," in a "new military application."

Why was it developed and deployed now? That's a question the Clinton administration needs to answer. Because the real "collateral damage" of new weapons like the B61-11 is likely to occur not in wartime, but much sooner, through devaluation of the treaties and commitments upon which the fragile non-proliferation regime rests.

Activists: Experiments Subvert Treaty

6/1/97

By Ian Hoffman
Journal Staff Writer

NEVADA TEST SITE — Disarmament advocates say conducting plutonium experiments underground in the Nevada desert, out of sight of satellites and foreign observers, makes other nations suspicious about U.S. compliance with a treaty ban on nuclear testing.

And treaty negotiators for India, Malaysia and Pakistan have criticized the tests publicly.

"You couldn't find a foreign diplomat that would say the U.S. should do these things. It's the difference between observing the letter and spirit of the treaty," said Christopher Paine, a senior arms-control analyst for the Natural Resources Defense Council, a Washington, D.C., environmental group.

Weapons scientists and government officials believe the Comprehensive Test Ban Treaty itself may be a gamble with the nation's existing nuclear weapons, and they have powerful supporters in Congress.

Among them is Rep. Floyd D. Spence, R-S.C., chairman of the House National Security Committee and a vocal critic of the treaty, as well as the Clinton administration's $40 billion, decade-long plan for taking care of the nation's estimated 10,000 deployed nuclear weapons.

Spence led Republicans on the committee last October in issuing a stinging critique of the U.S. Department of Energy's maintenance of the nuclear stockpile. The report singled out delays in the so-called subcritical experiments as a sign the Clinton administration was sacrificing the nation's nuclear deterrent to keep the treaty on track.

"Subcritical tests have become a litmus test in the minds of the Clinton administration for the department's ability to follow through" on maintaining the stockpile, said Daryl Kimball, executive director of the Coalition to Reduce Nuclear Dangers, a Washington, D.C., disarmament organization whose 16 member groups include the Arms Control Association, the Henry L. Stimson Center and Physicians for Social Responsibility.

If so, the experiments occupy a delicate position, at once a selling point in the push for the treaty's ratification in the U.S. Senate and a potentially touchy issue among some of the other 43 nations that must ratify it for the test ban to go into effect.

The experiments are termed subcritical because they produce no chain reaction or nuclear explosive yield. The treaty outlaws any explosion with a nuclear yield.

Scientists say they need to perform the experiments to see how plutonium changes as it ages or is cast as opposed to machined.

Scientists acknowledge they have no evidence aging hurts performance of plutonium pits, the fission triggers of the weapons, for at least 20 years. But they need to start predicting aging effects now to figure out ways to correct them.

So, critics ask, why not simply replace the aging pits with new ones?

It's not that easy, scientists told U.S. and foreign journalists who toured the experiments at the Nevada Test Site on Friday.

"Even if we wanted to make something exactly the same, we don't think we're capable in all respects. We need to do subcritical experiments to put to rest these needs," said Robin Staffin, the DOE's deputy assistant secretary for defense research and development.

Don Wolkerstorfer, manager of testing for weapons designers at Los Alamos National Laboratory, said so few people machined plutonium and other weapons components that scientists suspect exact specifications can't be reconstructed.

"I don't think we understand everything involved in these processes," Wolkerstorfer said. "A lot of this stuff is an art. You can have two people make a recipe and say it's fully specified. But a beginner may have to make it a few times to know exactly how to do it."

Some arms-control advocates say DOE's reluctance to allow foreign observation of the experiments is a missed opportunity for the United States to be a role model for other nuclear nations.

"If we're not willing to say to the world, 'Send an inspector,' how can we demand of the Russians, 'What are you up to? Can we send someone to go look?' " said Frank von Hippel, a physicist who teaches international affairs at Princeton University's Center for Energy and Environmental Studies.

"At this point I don't think it's a burning issue with other governments. But I think we should set a good example nonetheless," von Hippel said.

U.S. negotiators talked over the subcritical tests with other nations in drawing up the treaty, and no nation has asked to send observers, said the DOE's Staffin.

6/1/97

Managing the Nuclear Arsenal

Scientists say experiments will help gauge how nuclear weapons age, but critics argue the tests will send the wrong message to the world

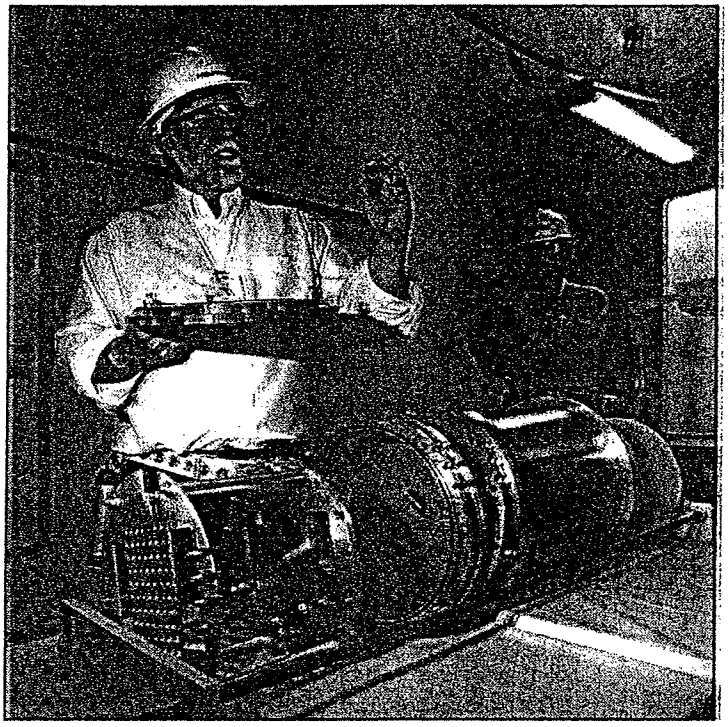
By Ian Hoffman
Journal Staff Writer

NEVADA TEST SITE — In mines deep beneath the nuclear-pocked Nevada desert, weapons scientists are readying explosive experiments with plutonium that critics say could upset a decade of advances toward nuclear disarmament.

The scientists and government officials opened the mines Friday to U.S. and foreign journalists to show that the experiments are not nuclear tests but a look at the effect of high-explosive stresses on plutonium.

"This is an important change in the way the country manages its nuclear arsenal. What we're seeing is the Nevada Test Site becoming an experimental facility, rather than a nuclear-explosion test site," said Robin Staffin, deputy assistant secretary of research and development for the U.S. Department of Energy.

The experiments, costing $15 million to $20 million each, are coupled with practice exercises to prove the United States can quickly restart full-scale nuclear tests that ended in 1992 — if stockpiled weapons become unreliable or a new arms race begins.



TEST MODEL: Los Alamos National Laboratory scientists Rob Hixson, left, and Frank Cverna show off a model of the Rebound experiment. Hixson holds up a stainless steel model of the plutonium coins used in the experiment.

Arms-control and anti-nuclear activists resurrected an 8-year-old lawsuit against DOE last month to halt the experiments.

And a handful of anti-nuclear protesters blocked the test site entrance Friday when the media bus arrived. The protesters were handcuffed and carried away by sheriff's deputies and security officers in desert fatigues to allow the bus through.

The protests are so common in Mercury, the community at the site entrance, that one writer remarked the town's arrest rate must rank it among the nation's highest crime areas.

What's at issue is the DOE's ambitious $40 billion, 10-year program to care for the nation's nuclear arsenal. The Clinton administration views the vast array of new research, manufacturing and experimental facilities as the cost of its moratorium on nuclear testing.

Anti-nuclear activists fear explosive experiments with plutonium and the rest of the program are signs the nation will keep its nuclear weapons forever.

Simulating nuke blasts

A key in the DOE's plan is simulating nuclear explosions in supercomputers at federal weapons labs in Los Alamos, Sandia and Lawrence Livermore in New Mexico and California. Scientists say the plutonium experiments will feed crucial data to those computer programmers.

Arms-control advocates suggest the mere prospect of U.S. weapons scientists renewing experiments with high explosives and plutonium 962 feet under the Nevada desert — site of 928 nuclear weapons tests in 40 years — could give other nations pause as they consider ratification of the Comprehensive Test Ban Treaty.

The treaty, signed by President Clinton in September 1996 and likely to be debated in the Senate this fall, forbids any explosive tests producing a nuclear yield. Scientists say the tests being proposed do not produce a nuclear yield.

The DOE agreed last week to delay the first two experiments — code-named Rebound and Holog — until after June 27, when U.S. District Judge Stanley Sporkin in Washington, D.C., is expected to rule on the activists' request for a temporary injunction.

It is the third time controversy over the need for the experiments and how they are perceived by other nations has delayed them since they were first announced by DOE in 1995.

See **N-TEST** *on* **PAGE B5**

N-Test Site Now Experimental Facility

from PAGE B1

The experiments at the test site 66 miles northwest of Las Vegas are called subcriticals because they use plutonium in shapes or amounts too small to reach critical mass, the point that splitting of the plutonium atoms snowballs into a runaway nuclear reaction. The first two experiments combined use about 3½ pounds of plutonium, less than half the absolute minimum needed to start a self-sustaining chain reaction.

Justifying the tests has required scientists to admit they still don't know precisely what happens to plutonium in an exploding nuclear weapon after having detonated 1,056 nuclear weapons and done more than 3,500 high-explosive experiments with plutonium since its discovery in 1942.

One reason: scientists during the Cold War focused on designing and testing new kinds of weapons rather than figuring how to make the old ones last longer.

"We were very driven by military schedules. But at the time, I don't think our scientific underpinning kept pace," said Don Wolkerstorfer, a weapons designer who heads testing for LANL's nuclear weapons technology division.

They failed to foresee so soon an end to the testing at this portion of desert larger than Rhode Island, which costs taxpayers $460 million a year to keep open.

An explosive past

Not far from the entrance of the Nevada Test Site sits the Device Assembly Facility, a low-slung concrete bunker built at a cost of $100 million. Its purpose was to put together dozens of weapons for future tests but it was never opened.

Earlier weapons scientists built small towns on Frenchman's Flat and amid the joshua trees of Yucca flats — full of dressed mannequins, automobiles, power plants, house trailers and frozen foods — and destroyed them with weapons to gauge the impact of nuclear attack.

Journalists on Friday were bused around and through craters where the desert collapsed to fill in where weapons vaporized vast underground caverns.

Scientists showed off the site of Icecap, a British nuclear test halted by the testing moratorium. It serves as a kind of museum now, equipped with a mock weapon. If testing resumes, scientists think they will use the same site.

What weapons scientists seek in the subcritical experiments is basic insight into how the plutonium alloys used in weapons behave when "shocked" by high explosive.

Los Alamos scientists are doing the first experiment, Rebound 1 — actually three experiments using 28 to 81 pounds of high explosives to hammer steel plates at up to 11,700 mph into coins of plutonium the size of a silver dollar.

The goal: mimicking the high-explosive shock waves and pressures found in the weapon's fission core of plutonium-gallium alloy in the millionths of a second before it ignites a fission chain reaction.

The supercomputer models demand that scientists use experiments to mince time into tiny fractions; the total time from ignition to detonation of all 928 nuclear weapons tests at the Nevada Test Site combined adds up to less than a second.

Rebound — a nonsense name from a 1950s play, plucked off a

RICHARD PIPES/JOURNAL

FREQUENT ARRESTS: A deputy sheriff arrests a protester blocking the road to the Nevada Test Site on Friday as a security guard looks on.

DIRECTING EXPERIMENTS: Engineer Raffi Papazian is Los Alamos National Laboratory's test director for experiments at the Nevada Test Site. He is standing in a tunnel that leads to the area where the experiments will be conducted.

6/1/97

DOE list of approved code names — will last a comparatively slow 55 millionths of a second. That's from the time scientists send the firing signal to the transmission of data and pictures through optic fibers to a trailer park full of computers and diagnostic equipment on the desert floor above.

The Rebound experiment with the largest explosive charge will slam plutonium with 2.3 million times the pressure of the atmosphere, or roughly pressures at the Earth's core. Scientists think the plutonium will liquefy.

The data they seek are speeds — how fast the shock waves run through plutonium, the speed of plutonium particles when the wave hits them and the speed of sound in plutonium of varying density.

The last has never been measured precisely and is thought to be more than 50 times Mach I, the speed of sound in air. Knowing it could give weapons physicists a valuable double-check on other data in the computer codes, said shock physicist Robert S. Hixson, designer of the Los Alamos experiment.

Success in the measurement depends on whether physicists correctly sized the plutonium.

"If we've guessed right, we'll get very cool data. If we didn't we'll have to try again," Hixson said.

Holog, an experiment by Lawrence Livermore scientists, is scheduled for September. Physicists will create a hologram by shining a green laser through a cloud of plutonium particles thrown up by a small chemical explosion.

Measuring the particles in the hologram should help weapons physicists understand what happens in the hollow core of a plutonium pit. There, plutonium mixes with gases that give extra punch to the first stage of a thermonuclear weapon.

The underground zero rooms where both experiments take place will be forever sealed with plugs of concrete or steel before the experiment.

The DOE has not approved any more subcritical experiments but weapons scientists say they need to do as many as four a year indefinitely, especially as they look into the aging of plutonium and as new technologies change the way replacement parts are made.

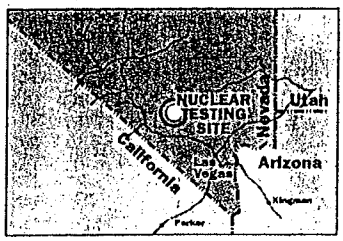
"I'd hate to say we'll be done in 10 years," said LANL's Wolkerstorfer. "In 10 years, we're going to be building different pits, different weapons. And that means different issues coming up."

PROTESTING PLUTONIUM TESTS

RICHARD PIPES/JOURNAL

Protesters briefly block a bus of journalists at the entrance to the Nevada Test Site on Friday. The protesters were arrested and led away.

BARRING A LEGAL VICTORY BY OPPONENTS, THE FIRST EXPLOSIVE NUCLEAR TEST SINCE 1992 WILL CLUE SCIENTISTS IN TO HOW WEAPONS ARE AGING



DOE plans nuke test

6/1/97

KEITH EASTHOUSE
The New Mexican

MERCURY, Nev. — Forty years ago, atomic fireballs rose like angry gods out of this barren desert north of Las Vegas, spewing radiation into the atmosphere and increasing cancer rates among the unfortunate "downwinders" of southwestern Utah.

Reined in by the 1963 Limited Test Ban Treaty — one of the signal achievements of the Kennedy administration — the bomb designers from Los Alamos National Laboratory and other government weapons facilities literally went underground, blowing up more than 800 nuclear devices in shafts and tunnels deep beneath the desert for almost three decades.

In 1992, two years after the Cold War, President Bush put an end to even these tests. With the United States poised to begin dismantling a significant portion of its arsenal of nuclear warheads, they simply weren't needed anymore.

Today, the first explosive test involving nuclear materials since Bush's moratorium is about to take place at the Department of Energy's Nevada Test Site.

Called "Rebound," it is the brainchild of Los Alamos scientists and, like all nuclear tests conducted for the past 34 years, will take place deep underground — in this case, in a small chamber 962 feet down called the "zero room."

Because it will not involve a nuclear explosion, it is considered a "subcritical" test in which a nuclear material — plutonium — will be subjected to an impact generated by chemical explosives.

Instead of testing new bomb designs to add to a growing arse-

Please see NUCLEAR, Page A-3

Photos by Abel Uribe/The New Mexican

In a tunnel nearly 1,000 feet below the Nevada desert, test director Raffi Papazian, center, points out features of the facility where Los Alamos scientists want to test plutonium used in the country's nuclear warheads.

Viewed through a window, the chamber where a previous test was conducted at the test site shows the aftermath of an explosion. The rooms are permanently sealed after a blast.

The battle lines

■ Proponents say the underground test of weapons-grade plutonium by Los Alamos scientists is needed to ensure that the country's aging nuclear arsenal still works.

■ Opponents say the test violates the spirit of a treaty banning nuclear explosions — which could make it harder to stop the proliferation of nuclear weapons.

6/1/97

NUCLEAR

Continued from Page A-1

nal of warheads, subcritical tests are supposed to generate data on the manner and speed with which the remaining warheads in the American stockpile might be aging.

While the force of the blast will not come anywhere near that of a nuclear detonation, it will for a split second subject the plutonium to the tremendous sorts of pressures created in an exploding nuclear bomb.

Once the experiment is over, the small test chamber will be permanently sealed with a 20-foot thick cement plug to prevent the plutonium — which will presumably be scattered all over the chamber — from escaping into the surrounding environment.

"Rebound" was supposed to take place next month, but that has been thrown into uncertainty due to a court challenge mounted by a coalition of 39 anti-nuclear groups — including two Santa Fe organizations, Concerned Citizens for Nuclear Safety and the Los Alamos Study Group.

The coalition wants Rebound — and a Lawrence Livermore National Laboratory experiment scheduled for later this year called "Holog" — halted pending resolution of an ambitious lawsuit challenging the DOE's entire Stockpile Stewardship program, a $40 billion, 10-year effort to maintain the nation's stockpile of nuclear warheads in a state of readiness.

The coalition — which also includes prominent national organizations such as Greenpeace and the National Resources Defense Council — says subcritical tests such as Rebound violate the spirit of the Comprehensive Test-Ban Treaty that President Clinton and foreign leaders signed last September.

"They muddy the waters about what is a nuclear test and what is not a test and they therefore undermine the treaty," said Greg Mello of the Santa Fe-based Los Alamos Study Group.

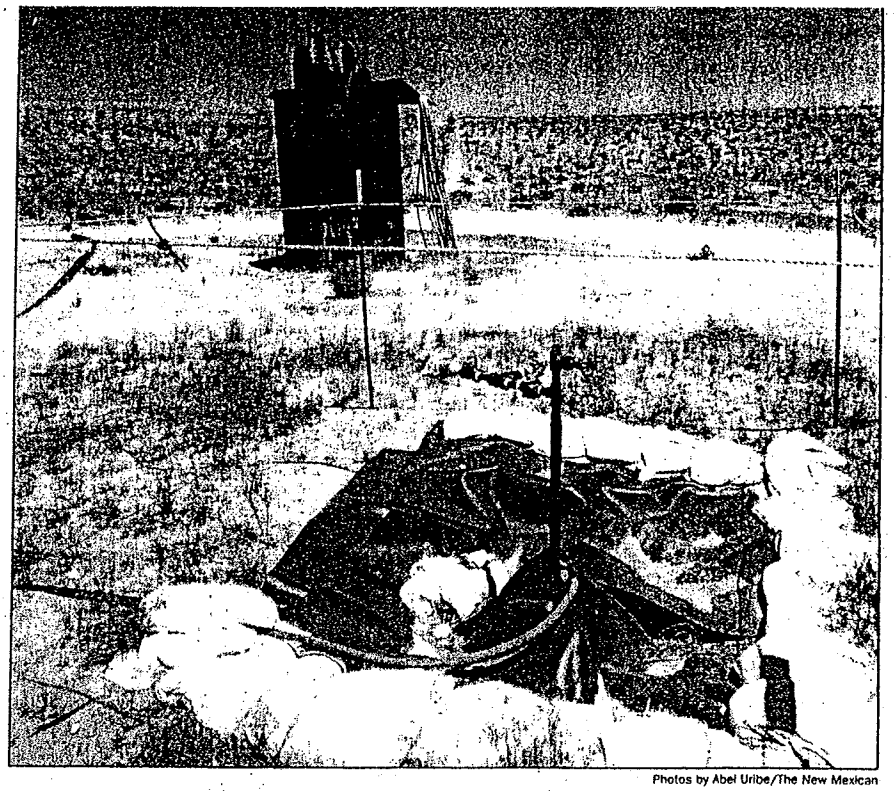
A federal judge in Washington, D.C., will hold a hearing June 17 to consider the coalition's request for a sweeping injunction immediately halting the subcritical tests and all other stewardship activities.

In response, the Energy Department has postponed the Rebound test — which had been scheduled for June 18 — until after June 27 on the expectation that the judge, Stanley Sporkin, will have made a decision by then.

Activists and others also have argued that the data generated by subcritical tests could be used to develop new types of nuclear weapons — something the Pentagon has specifically said it does not need now or in the foreseeable future.

Such objections to the tests were dismissed by laboratory and Energy Department officials during a media tour of the Nevada Test Site late last week.

Speaking at a news briefing in a large rubber dome in the middle of the test site, Robin Staffin, a high-ranking official in the DOE's Office of Defense Programs, said subcritical tests are consistent with the test-ban treaty because the treaty only bans nuclear explosions.



Photos by Abel Uribe/The New Mexican

Bilby Site is in the center of a crater left by a 249-kiloton underground nuclear test in 1963 that caused the surface of the desert to cave in.

Staffin also said the tests will reduce the chances that the United States might withdraw from the treaty by increasing the nation's confidence in the reliability of the bombs in the arsenal, many of which soon will be aging beyond their design life.

A provision in the treaty allows the United States or any other country that signed the agreement to back out in the event that it had lost confidence in the deterrent value of its weapons.

"Subcritical tests will greatly reduce the likelihood" that we will ever leave the treaty, Staffin said.

Regarding the argument that subcritical tests can be used to design new types of bombs, Staffin said that the ban on full-scale nuclear tests presents an "insurmountable obstacle" to developing new warhead types.

This was seconded by Bob Day, a LANL weapons testing official who was present during the tour. Day did not deny that some of the data generated by subcritical tests could be useful in developing new weapons designs, but he said there was no substitute for test explosions.

"If you're talking about a new class of weapons, I think you've got to blow them up" to be sure they will work, Day said.

Another criticism is simply that the subcritical tests — indeed the entire array of planned stewardship activities — amount to nothing more than an effort to keep nuclear weapons scientists busy at a time when their expertise no longer is needed.

Stockpile stewardship has become LANL's new mission — entailing about $300 million in new construction at Los Alamos for planned upgrades to weapons facilities.

The program reduces the chances that the lab workforce will see any major declines in the near future.

"The Cold War is over, and we should be coming into a new, more peaceful age, and yet they want to keep pushing these programs forward," said Matteo Ferreira of Shundahai Network, a Las Vegas-based anti-nuclear group. "It just seems like we really need to reassess where we're headed with our nuclear weapons programs."

About a half-dozen activists from Shundahai and other Nevada groups briefly blockaded a bus carrying about 50 members of the media as it was about to cross into the Nevada Test Site on Friday.

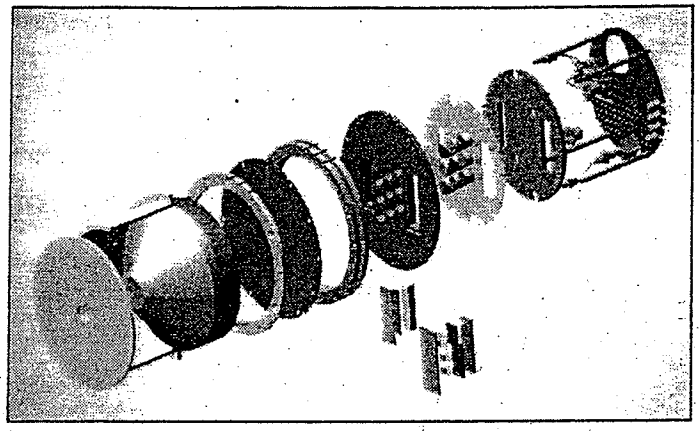
The activists brandished banners that said "subcritical tests are hypocritical" and "stop nuclear testing."

Regarding the projected cost of the stewardship program, Day said that the investment called for — $4 billion per year for the next 10 years — is smaller than it might seem.

He said it represents a fraction of the country's total defense spending.

He said the stewardship program would enhance national security by enabling weapons scientists to continue to give the assurance that they have given to the country's political leadership since the dawn of the Cold War: that the bombs will go off if used.

"We never want to use them, of course," Day said, "but it's an insurance policy for the country."



A schematic drawing of the assembly to be used in the Rebound test shows the nine 'coins' of plutonium that would be subjected to intense heat and pressure from a chemical explosion.

Facts about the test

If Los Alamos National Laboratory's "Rebound" nuclear experiment is not stopped by a last-ditch court challenge, it probably will take place in late June or early July. Here are some basic facts about the test:

■ The test would be in an underground chamber at the Department of Energy's Nevada Test Site, a desert area 100 miles north of Las Vegas that is larger than Rhode Island.

■ While there will be no nuclear detonation, the explosive force generated by a total of 160 pounds of chemical explosives will subject about two dozen pieces of plutonium embedded in steel plates to pressures approaching those in a nuclear fireball.

■ There will be three simultaneous blasts in three separate steel cylinders called "assemblies." The assemblies are small and easily can fit on a kitchen tabletop.

■ Coils of electronic cables coming out the back side of the three assemblies will transmit pulses traveling at the speed of light outside of the test chamber to a series of recorders and detectors. About 200 separate pulses will then be converted into electronic signals containing as many as 600 different measurements about the experiment.

■ Following the test, the experimental chamber — 962 feet below the surface — will be permanently sealed with a 20-foot thick cement plug.

■ The test will cost about $15 million. Full-scale nuclear tests, in contrast, ranged in cost from $70 million to $500 million.

Publication: Jnl Legacy 1995 to July 2005; Date: Jun 1, 1997; Section: Final; Page: 7

Section--Nation Edition--Final Date--06/01/1997 Page--A6

Echoes of a Japanese Bomb

Richard Benke The Associated Press

* Recently declassified documents detail Japan's efforts to construct an atomic device during the closing months of World War II

LOS ALAMOS -- When a captured Nazi U-boat arrived at Portsmouth, N.H., toward the end of World War II, the American public was never told the significance of what was on board.

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Some of the evidence was the uranium aboard the U-boat that surrendered in the North Atlantic on May 19, 1945, shortly after Adolf Hitler committed suicide.

Documents now declassified, including the sub's manifest, show there were 560 kilograms of uranium oxide in 10 cases destined for the Japanese army. Two Japanese officers were aboard, accompanying the cargo.

"Germany was collapsing. They had a lot of good uranium. Somebody got this crazy idea of taking it to Japan," says physicist Herbert York, director emeritus of the University of California's Institute on Global Conflict and Cooperation.

"The Japanese officers insisted on being given the right to commit suicide."

The uranium oxide is believed to have gone to Oak Ridge, Tenn., bolstering supplies for the Manhattan Project, the U.S. bomb program.

It was even possible -- but not probable -- that some of the captured uranium reached Japan aboard the Enola Gay, the B-29 that dropped the atomic bomb on Hiroshima on Aug. 6, 1945, says U.S. Energy Department archivist Skip Gosling. However, the bomb dropped on Nagasaki on Aug. 9 used plutonium, not uranium.

The fact that Japan had been struggling to produce a bomb has been known for decades. How far Japan got remains unclear.

It's also unclear whether President Harry S. Truman knew about Japan's program when he ordered the bomb dropped on Japan. Several of the Manhattan Project scientists said in interviews they knew nothing of Japan's A-bomb program until after the war.

"I don't think anybody knew," York said in San Diego. "We didn't think the Japanese were doing anything. We were worried about the Germans."

Would knowledge of Japan's own nuclear program have changed the minds of people critical of Truman's decision to drop the bomb?

"I think if there were clear evidence of this, it would indeed help to mollify in some way some of the people who are coming out with criticism of our government in using the bomb," says Steve Stoddard, an engineer who worked for 30 years at Los Alamos.

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"I know the Japanese were trying to make a bomb all through the war and would have done so had we not ended the war," Wilcox said by phone from his Los Angeles home. "I have documents showing one of the ways they were going to use it was to put it in kamikaze bombers and send it against the invasion fleets."

After Japan surrendered on Aug. 15, 1945, the occupying U.S. Army found five Japanese cyclotrons, which could separate fissionable material from uranium. The Americans smashed the cyclotrons and dumped them in Tokyo Harbor.

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"To suggest the Japanese were 'close' to a nuclear capability is nonsense," he says.

But a program there was, Hopkins acknowledges.

According to Japanese science historian Tetsu Hiroshige, preliminary research for a Japanese bomb program began in 1940, and the program called F-Go, or Number F (for fission), began at Kyoto in 1942.

However, a memoir by Kyoto physicist Bunsabe Arakatsu says the military commitment wasn't backed up with resources, and a 1978 article in the U.S. journal Science concluded the danger of a Japanese bomb "was not a real one."

Wilcox says documents suggest Japan's military took over the program late in the war with help from Japanese industry and built the separators. He says Japan searched for uranium, buying $25 million worth in China.

Wilcox and Washington, D.C., researcher Charles W. Stone have documents suggesting Japan might have moved its nuclear operation to Korea after U.S. B-29 raids dropped conventional bombs on Japan.

PHOTOS BY: THE ASSOCIATED PRESS

PHOTO: b/w

CAPTURED: This file photo shows a German U-234 sub being escorted by the U.S. Navy into Portsmouth Harbor, N.H., May 19, 1945. The sub was carrying 1,200 pounds of uranium oxide destined for Japan.

PHOTO: b/w

SECRET PROJECT: John Rhoades, director of LANL's Bradbury Science Museum, holds comment books suggesting U.S. scientists were unaware of Japan's efforts to build an atomic bomb.

Paper: Los Angeles Times
Title: New Details Emerge About Japan's Wartime A-Bomb Program
Author: RICHARD BENKE
Date: June 1, 1997
Section: Main News
Page: A-2

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German television, Zeit-TV, has aired interviews with crewmen recalling the Japanese officers who killed themselves and were buried at sea.

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By most accounts, Japan's wartime A-bomb efforts were headed by Yoshio Nishina, who had earlier worked in Copenhagen with atomic pioneer Niels Bohr.

The diary of Masa Takeuchi, a worker assigned to Nishina's thermal diffusion separation project, says Nishina wanted to process hundreds of tons of uranium at the rate of 300 mg per day, according to the U.S. journal Science.

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Postwar documents show U.S. concern about a Japanese plant in Hungnam, now part of North Korea, which was captured by Soviet troops at war's end.

"Consistent rumors from the Hungnam area have dealt with the possibility of atomic research being conducted there," says a U.S. Army 24th Corps document.

It says the mysterious output of the Hungnam plant was collected every other month by Soviet submarines.

The document seems to partly corroborate an Oct. 3, 1946, report by the Atlanta Constitution, describing a plant in Konan, the Japanese name for Hungnam.

The Constitution writer, David Snell, reported he was a 24th Corps investigator when he learned of the Hungnam plant from a Japanese officer.

Snell said the officer, whom he wouldn't identify, claimed Japan detonated a small atomic device Aug. 12 on an island off Hungnam three days before Japan's surrender.

He said the Japanese destroyed the plant, including incomplete bombs, hours before the Soviets arrived.

Immediately after Snell's article, U.S. investigators began re-interviewing Japanese sources about Hungnam, documents show. At least two sources said that plant had nothing to do with atomic research, interrogation reports say.

Snell said his source told him the Japanese moved their atomic operations there because of the B-29 bomber raids.

"We lost three months in the transfer," Snell quoted him as saying. "We would have had [the bomb] three months earlier if it had not been for the B-29."

Akira Yamada, a leading World War II historian who teaches at Tokyo's Meiji University, told the AP he doubts there was a Japanese atomic bomb program at Hungnam.

Yamada says he has seen no documentary evidence of it, nobody associated with any atomic research there has ever come forward, and no wartime leader ever mentioned atomic research at Hungnam, although other secret research--chemical and biological weapons--came to light.

But it is clear that Japan's nuclear efforts were interrupted in April 1945 when a B-29 raid damaged Nishina's thermal diffusion separation apparatus.

After the Hiroshima bombing four months later, the Science report said Nishina was summoned by Japanese commanders who asked about the A-bomb--and "whether Japan could have one in six months."

But it was just a few days after the Nagasaki bombing that Japan surrendered.

While many people around the world were horrified by the bombings, many were overjoyed. An unidentified man from West Australia, writing in a guest book at the science museum at the Los Alamos National Laboratory, had this to say:

"My mother, sister and I were in a POW camp in Java [Jakarta] when the first bomb went off. As a reprisal, the Japanese were going to place all the camp residents in barges and sink them in the Java Sea. The second bomb saved our lives--and all those innocent women and children held in POW camps all over Java and Sumatra and no doubt elsewhere.

"I am grateful."

Author: RICHARD BENKE
Section: Main News
Page: A-2

New Mexican 6/2/97

LANL, plutonium

In your article on our analysis of the potentially devastating impacts of one type of plutonium accident at Los Alamos, you included comments from LANL public relations staff. None of these addressed the concerns we raised.

Existence of an environmental impact statement (EIS) has no bearing on the safety of a proposed action. An agency need not choose — and has not chosen, in this case — the safest alternative. You did not mention that the results of

our analysis were broadly similar to DOE'S. Unlike in DOE's analysis, our assumptions were not classified, and the impacts not obscured.

It is not clear why you quote LANL public relations staff as authorities on the likelihood of this accident without asking for their analysis. In fact, no such analysis has ever been available.

In your article, LANL reveals *for the first time* that it continued to conduct explosions with plutonium in vessels, up to the present time. Are there safety authorizations for these experiments? Who has reviewed them? The fact the LANL continued to secretly conduct explosions with plutonium in the face of its own analysis showing the possibility of widespread fatalities in the town of Los Alamos after an accident, is not reassuring.

Your article fails to mention that the DARHT facility, at which these experiments are to be performed, is just one of *six* such facilities nationwide, collectively costing roughly $1 billion in planned new investment. Each facility has its own environmental impacts and risks as well. Nor do you mention that we are now in court again to stop some of these facilities.

Finally, is there a difference between "detonating plutonium" and "subjecting plutonium to the effects of nonnuclear explosions?" Your article implies so. Despite a careful technical presentation at our press conference, you seem to have been confused on this point. Why?

Greg Mello
Santa Fe

Paper: Albuquerque Tribune, The (NM)
Title: IN BRIEF
Date: June 7, 1997

Anti-nuke protesters expect to be arrested

Anti-nuclear protesters expected to be arrested today at Los Alamos National Laboratory's Bradbury Science Museum after rejecting what they described the lab's "last-minute" mediation offer.

Members of the **Los Alamos study group** said they expect to be arrested as soon as they begin distributing anti-nuclear leaflets to museum visitors this afternoon.

Two members, Greg Mello and Cathie Sullivan, were arrested April 19 for handing out leaflets at the museum, which has historical displays and artifacts of the lab's development of the atomic bomb and other scientific breakthroughs. They were released on $300 bail; no trial date was set.

The group has disagreed with the museum over the display of anti-nuclear information. It rejected what it said was the lab's offer to submit the dispute to a federal mediator and drop charges against Mello and Sullivan if today's protest was canceled.

Staff and wire reports

Author: Staff and wire reports
Section: Local News
Page: A3

Paper: THE SEATTLE TIMES
Title: WAS JAPAN CLOSE TO PRODUCING AN A-BOMB? - MATERIEL SENT BY GERMAN U-BOAT, BUT NO SOLID EVIDENCE YET FOUND
Author: RICHARD BENKE
Date: June 8, 1997
Section: NEWS
Page: A13

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Shipment from Germany

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A-bomb program's lofty goals

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According to Japanese science historian Tetsu Hiroshige, preliminary research for a Japanese bomb program began in 1940, and the program called F-Go, or Number F (for fission), began at Kyoto in 1942.

However, a memoir by Kyoto physicist Bunsabe Arakatsu says the military commitment wasn't backed up with resources, and the 1978 Science article concluded the danger of a Japanese atomic bomb "was not a real one."

Wilcox says documents suggest Japan's military took over the program late in the war and built the separators. He says Japan searched for uranium, buying $25 million worth in China.

Wilcox and Washington, D.C., researcher Charles Stone have documents suggesting Japan might have moved its nuclear operation to Korea after U.S. B-29 raids dropped conventional bombs on Japan.

Postwar documents show U.S. concern about a Japanese plant in Hungnam, now part of North Korea, which was captured by Soviet troops at war's end.

The document seems to partly corroborate an Oct. 3, 1946, report by The Atlanta Constitution, describing a plant in Konan, the Japanese name for Hungnam.

The Constitution writer, David Snell, reported he was a 24th Corps investigator when he learned of the Hungnam plant from a Japanese officer.

Snell said the officer, whom he wouldn't identify, claimed Japan detonated a small atomic device Aug. 12 on an island off Hungnam three days before Japan's surrender.

He said the Japanese destroyed the plant, including incomplete bombs, hours before the Soviets arrived.

Immediately after Snell's article, U.S. investigators began re-interviewing Japanese sources about Hungnam, documents show. At least two sources said that plant had nothing to do with atomic research, interrogation reports say.

Snell said his source told him the Japanese moved their atomic operations there because of the B-29 bomber raids.

"We lost three months in the transfer," Snell quoted him as saying. "We would have had (the bomb) three months earlier if it had not been for the B-29."

Akira Yamada, a leading World War II historian who teaches at Tokyo's Meiji University, said he doubts there was a Japanese atomic-bomb program at Hungnam.

Yamada says he has seen no documentary evidence of it, nobody associated with any atomic research there has ever come forward, and no wartime leader ever mentioned atomic research at Hungnam.

However, it is clear that Japan's nuclear efforts were interrupted in April 1945 when a B-29 raid damaged Nishina's thermal diffusion separation apparatus.

After the Hiroshima bombing four months later, the Science report said Nishina was summoned by Japanese commanders who asked about the A-bomb - and "whether Japan could have one in six months."

But it was just a few days after the Nagasaki bombing that Japan surrendered.

Author: RICHARD BENKE
Section: NEWS
Page: A13

7 Protesters Arrested At Lab Museum

Anti-Nuke Leafleteers Decrying Loss of Space

June 8, 1997

BY IAN HOFFMAN
Journal Staff Writer

LOS ALAMOS — Police arrested seven anti-nuclear protesters on Saturday at the request of security officers for Los Alamos National Laboratory, as the protesters hoped.

The protesters, mostly Santa Feans with the Los Alamos Study Group, were handing out copies of the Bill of Rights and anti-nuclear literature under the portico of the Bradbury Science Museum.

Activists are angry that the laboratory-run museum changed a policy that gave them exhibit space to make the case against nuclear weapons. The new policy requires the activists to share the space with a pronuclear group.

The change sparked complaints that the federal weapons laboratory is squashing free speech at a publicly funded museum.

"I'm shocked they would even consider arresting someone for exercising their First Amendment rights. That's what democracy is based on," protester Amy Bunting, 59, said before her arrest.

Leafletting to force the arrests "is my public duty," protester Jean Nichols said shortly before she was handcuffed and led away. "I feel some of the things the lab does put me and my family at risk, like continued development of nuclear weapons."

Lab security officer Bill Sprouse asked Los Alamos police to arrest the protesters after asking the group to stop handing out the leaflets or move 16 feet away to the public sidewalk.

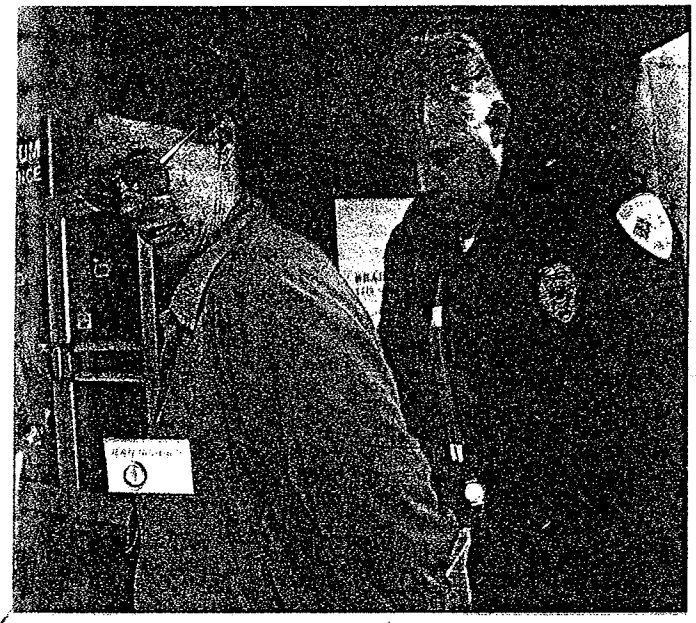
The seven protesters, leafletting in shifts, were each booked on a charge of criminal trespassing, were fingerprinted and photographed, then released on $300 bond. They said police did not read their rights to them.

Lab spokesman James Rickman said the lab would have anyone arrested who was handing out pamphlets or demonstrating on museum property, not just anti-nuclear protesters.

"It's not content-specific," Rickman said. "We feel if people are out here handing out leaflets, they might disrupt the operation of the museum."

Other protesters arrested Saturday were Peggy Prince, Marion

See **SEVEN** *on* **PAGE 6**



JANE BERNARD/JOURNAL

MAKING A POINT: Officer Mitch Trimmer arrests Los Alamos Study Group member Jean Nichols for handing out leaflets in front of the Bradbury Science Museum on Saturday afternoon.

Seven Arrested At Lab Museum

from **PAGE 1**

Malten, Karin Salzmann, David Bacon and Gail Haggard.

Two other protesters with the study group were arrested last month. No trial date has been set.

"The laboratory is afraid to prosecute us. They're too cowardly to actually face the laws of the United States," said Greg Mello, the study group's leader and one of those arrested earlier.

The group and the laboratory bickered last week over the protests and staged arrests. The lab offered to have the dispute over the museum exhibit mediated by the dispute-resolution office of the U.S. Department of Energy, which owns the laboratory.

That would take too long, Mello said. He hopes public pressure or a legal ruling on the protests will change the lab's stance.

Mello said he saw another way the lab could end the protests.

"We told them we would stop leafletting when they stopped designing and producing nuclear weapons," he said.

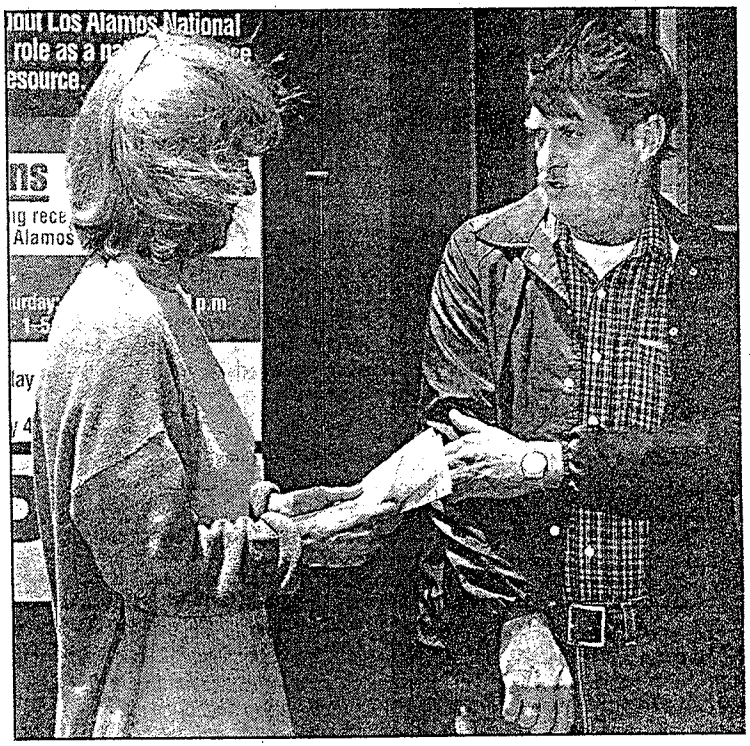
Rickman indicated that's not likely.

"As long as the majority of reasonable Americans continue to support the lab's mission, the laboratory will continue with its mission of ensuring a safe and reliable nuclear stockpile," he said.

Mello bemoaned Saturday's blustery winds and occasional rains, adding that the study group plans to continue the protests even during the chill of winter.

Overhearing Mello, Rickman chuckled.

"Whoever said being an activist was comfortable?" he asked.



JANE BERNARD/JOURNAL

ORDERED TO MOVE: Bill Sprouse, a security officer for Los Alamos National Laboratory, tells Los Alamos Study Group member Amy Bunting that she cannot hand out leaflets by the Bradbury Museum door and must move approximately 16 feet out to the curb.

Los Alamos police arrest protesters

S.F. New Mexican 6/18/97

LOS ALAMOS — Los Alamos Police arrested seven members of the Santa Fe-based Los Alamos Study Group as members handed out copies of the Bill of Rights Saturday in front of the Bradbury Science Museum.

The group members were arrested on charges of criminal trespass.

The seven are: Amy Bunting, Marion Malten, Margaret Prince, Karin Salzmann, Gail Haggard and David Bacon, all of Santa Fe, and Jean Nichols of Llano.

Capt. Wayne Brownlee of the Los Alamos Police Department said the members were arrested in three different incidents throughout the afternoon.

"They wouldn't leave or desist, so they were arrested," he said. "They have done this before. It's an ongoing dispute, I believe, between the (group and the museum)."

Lab officials have told group members that they need to keep a certain distance away from the museum or face arrest.

All were taken to the county detention center and then released on bond.

The museum is operated by Los Alamos National Laboratory.

"It's ironic that a government-owned facility would arrest people for handing out the Bill of Rights," said Greg Mello, an organization leader.

Paper: Albuquerque Tribune, The (NM)
Title: NIF opponents to cite criticism of laser in court battle
Date: June 13, 1997

Legal opponents of the government's new nuclear-weapons program say scientists' criticism of a $1 billion fusion laser could be vital in their court case against it next week.

Some 39 anti-nuclear and environmental groups are asking federal District Judge Stanley Sporkin to stop the Department of Energy's Stockpile Stewardship and Management Program and the laser project, which is the National Ignition Facility.

They claim DOE has violated federal environmental law by failing to consider environmental alternatives and other parts of the stewardship program.

DOE officials say the NIF is the top priority in the stewardship program, which is costing taxpayers $4 billion per year. Scientists are to use a variety of alternatives to nuclear-bomb tests to ensure warheads are safe in the post-Cold War era.

The critics say comments by key nuclear-weapon designers and fusion-energy scientists at all three of the nation's nuclear-weapons laboratories show there is little need for the taxpayer-financed laser.

"It raises questions about how urgent the NIF really is and whether the Department of Energy has considered alternatives," said physicist Tom Cochran.

He noted that reputable critics, including several in New Mexico, even question whether the NIF will work.

His Washington-based Natural Resources Defense Council, a government watchdog, is suing to block the NIF and an elaborate program to monitor, evaluate and improve nuclear weapons.

The case will come up Tuesday in federal district court in Washington, D.C.

Slated to be built over the next several years at Lawrence Livermore National Laboratory in California, the NIF is a glass laser designed to make tiny, controlled thermonuclear explosions. DOE says it will help scientists understand their bomb designs and any changes needed in them.

But some of the nuclear-weapon designers and fusion scientists at Livermore and at Los Alamos and Sandia National Laboratories in New Mexico, say the NIF has little relevance to stockpile stewardship.

The scientists' comments were reported in The Tribune May 29 and rapidly spread across the country over the Internet.

"It's made quite a splash here," said Barbara Finamore, a defense council attorney who is handling the case in Washington. "We consider those comments to be very important, and we will use them in the case."

The article sparked immediate criticism from DOE but has drawn praise from scientists and other critics.

In a letter to the newspaper's editor June 2, DOE's David Crandall called The Tribune article "irresponsible." He said scientific criticism of the NIF had ignored a half-decade of "rigorous reviews and (administrative) decisions" to build it.

But scientists and environmentalists have described those reviews as biased and illegally held in secret. Much of DOE's military fusion program remains classified.

Cochran dodged reports that his group is preparing to subpoena the weapon scientists.

"That's idle gossip," he said, adding that his Natural Resources Defense Council may be seeking affidavits from other government officials, notably in the Department of Defense and the Arms Control and Disarmament Agency.

The defense council already has won a federal court ruling that said a positive NIF scientific assessment by the prestigious National Academy of Sciences was illegal.

While Crandall concluded that public criticism of the NIF "damages the future for all of us," one of DOE's long-time nuclear weapon scientists in Albuquerque laughed.

"NIF is worthless," said Bob Peufiroy, a retired, 39-year veteran of nuclear-weapon design, testing and evaluation at Sandia in Albuquerque. "It doesn't produce better weapons."

Peufiroy is among weapon scientists who worry that funding the NIF will distract attention and divert money from real nuclear-weapon problems.

A strong proponent of the "nuclear deterrent," Peufiroy said, "We have an enduring stockpile. It's healthy."

Several other weapon scientists previously suggested that scientific peer review for the NIF had broken down because each of the three labs has been promised expensive "scientific toys" and are reluctant to upset the toy box.

"It can't be used to maintain the stockpile, period," said Peufiroy, who said the NIF's value even as "Big Science" is poor.

Gary Craddock, a former Livermore lab physicist now living in Albuquerque, says the NIF has scientific value but has little to do with nuclear-weapon stockpile stewardship. Such projects, he said, "represent a welfare program for the DOE labs."

Greg Mello, a scientist with the **Los Alamos Study Group** in Santa Fe, said the criticism ought to be enough to "de-fund NIF now."

Author: Lawrence Spohn TRIBUNE REPORTER
Page: A1

Paper: Richmond Times-Dispatch
Title: MICRONUKES
Date: June 13, 1997
Section: Editorial
Page: A-20

For nearly half a century the anti-nuclear movement has protested the unimaginable brutality of nuclear weapons: notably the sickening degree of collateral damage -- death and destruction inflicted on innocent bystanders -- they cause.

A one-megaton airburst (the same as 1 million tons of TNT) above the State Capitol, for instance, would not only vaporize downtown; it would flatten every building and kill every creature between the Lee Monument and the eastern edge of Church Hill. It would destroy every residence north to the Fairgrounds and south to (almost) the Philip Morris complex -- and it would ignite newspapers, inflict second-degree burns, and cause hurricane-like winds from the Richmond airport to Regency Square Mall. Put another way, a one-megaton bomb equals the explosive power of half-a-million Timothy McVeighs.A one-megaton groundburst causes somewhat less damage. Yet taking out an underground bunker complex or foreign missile silo, for example, requires a nine-megaton groundburst. So one would think anti-nuclear groups would be happy the Pentagon has developed a much smaller, earth-penetrating bomb that can demolish hardened targets, such as the Libyan chemical weapons plant now under cons!
truction, with vastly less above-ground damage. The B61 "Mod 11," as the bomb is called, carries a payload rangin g from a mere 300 tons to 500 kilotons.

But anti-nuclear activists are in a snit. John Laforge of Nukewatch terms the B61 "a reckless step in the wrong direction." Greg Mello of the **Los Alamos Study Group**, writing for the Bulletin of Atomic Scientists, engages in exquisite legal sophistry (the B61 may not be a new weapon, but it is "a weapon with a new capability") to argue that it violates the Comprehensive Test Ban Treaty. He worries that it will "devalue" treaties "upon which the fragile non-proliferation regime" exists.

But such vaporous arguments do little to obscure the harsh reality of rogue-state threats. North Korea, Libya, and other outlaw regimes are developing underground weapons facilities. The U.S. may be called upon to take out such facilities at some point in the future. Conventional weapons cannot. The only means of doing so, aside from the earth-penetrating B61, is the massive groundburst mentioned above. The rogue nations know the U.S. would be extremely reluctant to employ such vicious tacti cs. But a "micro nuke" presents a much more credible (and much more humane) threat.

Treaties are fine, but the activists always seem to overlook an important fact: Somebody had better have the means to enforce them without vaporizing everything -- including innocents -- nearby.

Section: Editorial
Page: A-20

Judge dampens fight against nuke program

6/18/97 N.M.

By PHIL STEWART
States News Service

WASHINGTON — In an apparent blow, a federal judge discouraged anti-nuclear activists Tuesday from seeking a court injunction on the Energy Department's $40 billion program to manage the nation's nuclear weapons arsenal.

Instead, Judge Stanley Sporkin told environmentalists to work out their gripes with the Energy Department before the court reconvenes next week.

"It's clear that we have to do something," Sporkin said. "What I'm suggesting is that you talk to each other."

The suit, filed by 39 anti-nuclear organizations, charges that the Energy Department failed to conduct environmental impact studies and to consider "reasonable alternatives" when developing its massive 10-year plan.

Slated plutonium projects at Los Alamos National Laboratory were the subject of repeated attacks by group attorneys. In court proceedings Tuesday, attorney Barbara Finamore said that LANL would face "extreme environmental dangers" under the DOE's plan.

Finamore said the same plutonium projects slated for LANL caused a test site in Colorado to shut down, after more than 700 plutonium-induced fires and several radiation leaks.

"One of the first defects (in the DOE plan) is that it doesn't take

Please see **NUCLEAR,** Page A-2

NUCLEAR

Continued from Page A-1

into account that the same accidents could happen at Los Alamos," Finamore said.

But Sporkin said delaying the nuclear weapons management plan could threaten national security. He also questioned whether Finamore would, if granted the court injunction, object to later DOE proposals.

"Is it the motive to really get them to do what you want," Sporkin asked. "Or is it to get them to give up (on the project) entirely."

Justice Department officials said the DOE would consider recommendations made by the coalition over the next week. But environmental attorney Lisa Dowden said that only a court injunction would alter the course of the nuclear weapons management plan.

"Without a preliminary injunction, (a settlement) is meaningless," Dowden said.

Sporkin scheduled a further hearing June 24 to allow the Justice Department to continue its argument. It is not known when a decision will be made.

Besides Washington-based NRDC, a leading environmental group, plaintiffs include 38 other organizations, many of them grassroots groups that have been active near federal nuclear weapons production and storage facilities around the country.

Groups participating in the lawsuit include two from New Mexico — the Los Alamos Study Group and Concerned Citizens for Nuclear Safety.

Among other things, the lawsuit would halt new DOE facilities, affecting several hundred million dollars' worth of construction projects at Los Alamos National Laboratory and about $100 million worth at Sandia National Laboratories in Albuquerque.

Paper: Santa Fe New Mexican, The (NM)
Title: Judge dampens fight
Date: June 18, 1997

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Author: Phil Stewart
Section: Main
Page: A-1

Judge reluctant to stop weapons work because of suit

6/18/97

By H. JOSEF HEBERT
Associated Press Writer

WASHINGTON (AP) — Lawyers for an environmentalist group contend the Energy Department failed to consider adequately the environmental impact of a program to revamp the way it manages nuclear weapons.

A lawsuit by the Natural Resources Defense Council asks the court to block parts of the weapons management plan including the construction of a $1 billion laser laboratory in California that is key to simulating nuclear weapons tests.

But U.S. District Judge Stanley Sporkin, hearing arguments on the suit Tuesday, made clear he is hesitant to block the program. He asked lawyers on both sides whether they would agree to a "dual track" in which the program would continue, but additional environmental assessment would be required.

"A judge can't shut down a country from defending itself," Sporkin said, alluding to suggestions by the government that the laser program might have national security implications.

But Sporkin also expressed some sympathy for arguments by NRDC lawyers that the Energy Department had not conducted adequate environmental impact assessments.

Lisa Dowden, attorney for the NRDC, said the Energy Department, in developing the nuclear weapons stockpile management plan, did not consider "reasonable alternatives" and in many cases did not adequately examine potential environmental harm at various proposed facilities.

She also maintained that only a small fraction of the program even had an environmental analysis.

Martin LaLonde, a Justice Department lawyer, replied that alternatives were considered but did not meet national security needs.

He said the management plan, including the laser facility in California, are designed to assure that nuclear weapons in the post-Cold War years are in proper condition.

The injunction requested by the NRDC also would halt planned tests later this summer at the Nevada Test Site in which small amounts of nuclear material would be used in a chemical explosion. The "subcritical" explosion is designed to gather information that would be used in analyzing weapons and warheads in the laboratory.

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Paper: Albuquerque Tribune, The (NM)
Title: Congress: Slow down on NIF
Date: June 27, 1997

A congressional committee has warned the Department of Energy to cool its heels on a controversial $1.2 billion laser project designed to ensure that America's nuclear weapons are safe and reliable.

The National Ignition Facility, a fusion energy laser designed to produce tiny thermonuclear blasts in a laboratory, is to be built in California but has important implications for New Mexico's Sandia and Los Alamos national laboratories, where scientists have both praised and condemned it.

The project, some critics claim, has little chance of succeeding and is a huge waste of taxpayers' money. Dozens of environmental groups are suing to stop the Department of Energy from proceeding with the project.

"The committee is urging the department to manage the situation and be mindful of the conflict and criticisms," said H. Lee Halterman, minority counsel for the House Committee on National Security.

The committee urged the Energy Department to "not make irreversible commitment of resources" to the facility.

It also urged it to revitalize public, scientific, peer review, which is vital to Congress in "determining whether or not to continue the substantial investments required in any facility such as the NIF."

But Halterman said the facility remains funded and the committee still strongly supports the project.

Facility critic Greg Mello of the **Los Alamos Study Group** in Santa Fe called the congressional committee development "intriguing."

Mello's group is one of more than 30 environmental and anti-nuclear organizations that are suing the Energy Department to stop building the facility.

A federal district judge in Washington, D.C., could rule as soon as today on the groups' request for a temporary injunction.

If granted, it would restrain the DOE from continuing work on the facility and force the department to conduct a new environmental impact assessment that considers alternatives to the facility and other nuclear weapon research components.

Mello and other critics align themselves with several mainstream nuclear weapons scientists at Los Alamos, Sandia and Livermore laboratories who say the project should be immediately halted.

The groups contend the laser is unnecessary -- that the DOE failed to consider reasonable environmental alternatives to it and other weapon projects as prescribed by federal law and that the department is misrepresenting the facility's national security importance to the job of maintaining safe and reliable warheads.

"Those kinds of disputes are why we would want to have more peer review," said Halterman, who works for Democrat Rep. Ronald Dellums of California. Dellums is on the congressional committee and has had classified briefings on the facility over the last four years.

Halterman said the committee "feels supportive of the NIF" but did not want the DOE to continue to push the project in the face of litigation that could halt it at least temporarily.

Earlier this month, the DOE and the Lawrence Livermore National Laboratory, where the laser is to be built, broke ground on the facility east of San Francisco. But construction is delayed pending the court case.

DOE and Department of Justice attorneys have cloaked the case under the veil of national security, insist environmental law has been followed and suggest that the court should not intervene.

But several nuclear weapon scientists, whose salaries ultimately come through the DOE, have challenged the DOE's contention that the facility is essential -- indeed that it is the top national security priority -- in caring for aging warheads.

They say the laser has been oversold as central to the DOE's science-based Stockpile Stewardship and

Management Program and that several other program components are more important.

The facility laser, which will be by far the world's largest, is designed to generate tiny thermonuclear blasts by focusing laser energy from all directions and imploding a tiny hydrogen fuel pellet.

It will cost American taxpayers about $4 billion per year to operate the facility into the next century.

Critics say there are better and cheaper alternatives. Among these:

* Developing stringent remanufacturing standards to replace old or worn warheads parts piece for piece and downgrade the need for sophisticated weapons simulators.

* Looking into X-ray generating, pulse-power technology being developed and advanced at Sandia on its Z-Accelerator that scientists predict could achieve much of the facility's objectives at a third of the cost.

* Investigating the use of the powerful hydrogen fluoride laser designed and advanced by maverick physicist Leo Mascheroni for the same results as the facility.

Other critics say that DOE-funded scientific reviews of the facility have been biased, packed with scientists who had worked on the facility or for Livermore, who were favorable to the project and who met largely behind closed doors.

Earlier this year, the most recent National Academy of Sciences review of the facility, also favorable, was ruled unusable by a federal court.

Prohibiting the DOE from citing or using the report, the court found the academy panel had failed to abide by federal law that requires advisory panels to meet openly and conduct business publicly.

House committee counsel Halterman said the ruling was troubling to the committee.

He said members want the DOE and the academy to figure out how to conduct expert scientific peer reviews within the law and "to weigh countervailing claims."

Author: Lawrence Spohn TRIBUNE REPORTER
Page: A1

Publication: Jnl Legacy 1995 to July 2005; Date: Jun 28, 1997; Section: Journal North; Page: 61

Edition--Journal North Date--06/28/1997 Page--3

'Subcritical' Nuke Tests Planned in Nevada Desert

Journal Staff Report

Scientists from Los Alamos National Laboratory will hammer plutonium with high explosives next week beneath the Nevada desert in a series of experiments long delayed by controversy.

The U.S. Department of Energy will announce Monday that the first of the so-called "subcritical" experiments, code-named Rebound, will take place mid-morning Wednesday at the DOE's Nevada Test Site.

DOE and lab officials on Friday confirmed the planned announcement.

Critics say conducting nuclear weapons-related experiments underground at the historic site of U.S. weapons tests will undermine a global campaign to end nuclear testing.

Among the sharpest critics in New Mexico are two Santa Fe groups, the Los Alamos Study Group and Concerned Citizens for Nuclear Safety.

The experiments are called subcritical because the coin-sized pieces of plutonium are in too small quantities and odd shapes to kick off a runaway nuclear reaction.

Even so, said Greenpeace's Bruce Hall, the experiments violate the spirit of the Comprehensive Test Ban Treaty.

"The tests send the message that the United States is more interested in advancing our nuclear weapons expertise than in advancing a non-proliferation and disarmament agenda," wrote 47 activist groups in letters to the U.S. Senate and President Clinton.

Many of the same groups on Tuesday dropped the subcritical experiments from a court battle over the DOE's plan for maintaining the nuclear arsenal during the next decade.

Attorneys for the groups explained that the judge presiding over the suit already had signaled his support for the experiments.

7/3/97

Subcritical Tests Begin

LANL Project in Nevada Spurs Protest, Criticism

By Ian Hoffman
Journal Staff Writer

Nuclear weapons scientists from Los Alamos fired metal at plutonium deep under the Nevada desert Wednesday in experiments criticized as a needless gamble with a worldwide ban on nuclear testing.

The price of the research, once pegged at $15 million to $20 million per experiment, has swelled five-fold over two years of delays, to $85 million to $100 million.

It was over in 55 millionths of a second — from firing signal to transmission of pictures and data by optic fibers to a trailer park of computers on the desert floor.

"As far as we know, we got good data coverage," said Don Wolkerstorfer, chief of testing for the Nuclear Weapons Technology Division at Los Alamos National Laboratory.

Scientists admit that after 1,056 nuclear tests and dozens of explosive experiments with plutonium, they still are in the dark about precisely what happens to the enigmatic metal at the heart of an exploding nuclear weapon.

The first of the experiments, code-named Rebound and designed by LANL scientists,

See **SUBCRITICAL** *on* **PAGE 3**

Subcritical Plutonium Tests Begin

from **PAGE 1**

were triggered late Wednesday morning in a sealed mine room 962 feet underground.

They look at how plutonium behaves when hit by shock waves and by pressures nearly as great as those at the center of the Earth.

Called subcritical experiments, they use silver dollar-sized pieces of plutonium too small to touch off the runaway chain reaction needed for nuclear explosions.

That hasn't kept some critics from blurring semantics and calling them "nuclear tests," as protesters did Wednesday on the Santa Fe Plaza and elsewhere.

Seventeen protesters at the test site were arrested on trespassing charges in the hours before the experiment. Thirty blocked a media bus entering the site. Three chained themselves beneath the bus with bike locks and had to be cut loose.

Forty-four members of Congress last week joined anti-nuclear and disarmament activists in urging President Clinton to order the U.S. Department of Energy to halt the experiments. They argue the research is both unnecessary and provocative at a time when world governments are debating ratification of the Comprehensive Test Ban Treaty.

The treaty's aim is to halt design of new nuclear weapons. Its logic: Nuclear nations will be less likely to add new types of weapons to their arsenals if they can't test them.

As other nations mull ratification, arms-control activist Tom Zamora Collina said, "There may be a perception the United States is undermining the test ban by creating information that could be used to create new weapons."

Even more troubling to many arms-control activists, however, is the refusal by the Clinton administration to invite foreign observers to the Nevada site.

The refusal, Collina argued, is a missed chance for the United States to be a role model and to satisfy the world that the experiments don't produce nuclear explosions that would violate the treaty.

"The question the United States needs to ask is, do we care if Russia does them?" said Collina, director of arms control and international security for the Union of Concerned Scientists in Washington, D.C. "The precedent we're setting is, you can't come and see. It effectively prevents us from saying to other nations, 'We want to see what you're doing.' "

Critics in New Mexico echoed the same themes.

"The DOE can control the physical effects of these blasts underground, but the diplomatic effects are just beginning," warned Greg Mello, head of the Santa Fe-based Los Alamos Study Group. "The Clinton administration is saying to Russia and China, 'Go ahead and test like us.' "

DOE officials say they notified other nations of the experiments and none asked to witness them.

Scientists will feed data from the experiments to a LANL supercomputer being built for simulation of nuclear-weapons explosions.

Scientists say such "virtual weapons tests" aren't intended for design of new kinds of weapons. Rather, the simulations will predict how decades of storage could affect the seven basic warhead and bomb designs in the U.S. nuclear arsenal, estimated at 10,000 deployed weapons.

Weapons designers also hope to see how changes in making the weapons' plutonium cores or pits will affect them. LANL, for example, will start casting the pits and washing them with less hazardous chemicals in 2003 — processes less wasteful and environmentally harmful than those used at the now-defunct Rocky Flats site near Denver.

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Lab scientists who designed Rebound apparently were pleased, said a lab spokesman, Jim Danneskiold.

"I'd say they were quietly satisfied after a long, long wait," Danneskiold said. "This is the kind of thing that makes the scientists happy, doing a complicated experiment and getting good data."

Material from the Associated Press was used in this report.

Scientists pleased with first nuclear test since 1992

7/3/97

TEST

By RAY RIVERA
The New Mexican

Scientists are calling Wednesday's underground nuclear-related test in Nevada — the first involving nuclear materials since a 1992 moratorium — a success.

"Everything went as expected," DOE spokesman Derek Scammell said of the test, which was code-named Rebound and designed to test the safety and reliability of the nation's aging nuclear-weapons stockpile. "The scientists are very happy. The program went as planned."

The test, which took place 960 feet beneath the Nevada desert north of Las Vegas, bombarded a dozen small pieces of plutonium — the largest weighing 2.3 ounces — with 160 pounds of chemical explosives. The DOE compared the blast to about what is used in highway construction. Scientists will use the data to determine how plutonium — a key element in nuclear weapons and their triggering devices — will react with age.

The DOE says that many of the 9,800 nuclear weapons in the U.S. arsenal are 20 years old, and scientists have expressed concerns over how the years might have affected the weapons.

Please see **TEST**, Page A-2

Continued from Page A-1

The DOE verified Wednesday that the test remained "subcritical," meaning it did not set off a nuclear chain reaction.

It was the first of a series of planned "subcritical" tests that have drawn protests and a lawsuit from a coalition of anti-nuclear groups, including two Santa Fe-based organizations: Concerned Citizens for Nuclear Safety and the Los Alamos Study Group.

The coalition, which also includes prominent national organizations such as Greenpeace and the National Resources Defense Council, says subcritical tests such as Rebound violate the spirit of the Comprehensive Test-Ban Treaty that President Clinton and foreign leaders signed last September.

"These tests are not just subcritical, they are hypocritical," said Jay Coghlan of Concerned Citizens. "Why are we conducting them in such a provocative faction when the ink is barely dry on the (treaty)."

U.S. Rep. Ronald V. Dellums, D-Calif., issued a statement Tuesday denouncing the tests.

"I have taken the view for over a year that these tests need not be conducted at this time," Dellums said, "and that they should be postponed in order to enhance the climate for entry into force of the Comprehensive Test Ban Treaty that the United States signed last year."

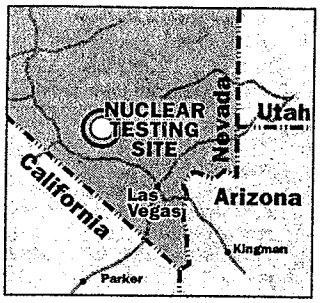
Forty-four other House members have also urged the president to halt the tests.

The anti-nuclear coalition claims the tests are unnecessary.

"The big issue is that the Department of Energy knows very well it doesn't need to conduct these tests," said Greg Mello of the Los Alamos Study Group. "DOE knows its warheads will work and that they will work for decades into the future. Their only impact on national security will be to weaken it by inviting international criticism and opening the door for clandestine testing activities in China and Russia."

Coghlan cited DOE literature dated February 1996 which states, "The stockpile is currently judged safe and reliable by DOE."

"DOE cries wolf that there's an immediate crisis at hand and then in their own language they say there's not a problem in the foreseeable future," said Coghlan, adding that the experiments



The New Mexican

are just a "fig leaf" for the design and production of new weapons.

The DOE has steadfastly denied that the tests are in any way related to the design or modification of new or existing weapons.

A federal judge in Washington, D.C., failed to grant the coalition an injunction against the test.

"The judge (Stanley Sporkin) signaled to us that he was not going to stop these tests in the short run," Mello said. "And so we had to drop our insistence on an immediate injunction in favor of a possible permanent injunction later on."

Ten anti-nuclear activists were arrested on trespass charges in the hours leading up to Wednesday morning's test. Three were arrested as they rode dirt bikes across the restricted site in the pre-dawn hours. Seven more were arrested when a group of 30 protesters briefly blocked a media bus entering the site. Three of the protesters chained themselves beneath the bus and had to be cut loose.

Coghlan and Mello said no one from their groups were at the Nevada protests. However, a small group of local protesters wearing all black and carrying signs marched at noon from Guadalupe Church to the Plaza, passing U.S. Sens. Pete Domenici's and Jeff Bingaman's offices along the way.

Mello hopes Congress will flinch at the costs of the tests.

DOE spokesperson Latomya Glass said Wednesday's experiment cost between $15 million and $20 million. The agency said, however, that costs leading up to the test have gone as high as between $77 million and $100 million.

The blast took place at 11 a.m. and lasted just seconds, Glass said. She said that a 20-foot thick concrete plug was already set to permanently seal the chamber as the test was conducted.

The Associated Press contributed to this report.

Subcritical Tests Begin

LANL Project in Nevada Spurs Protest, Criticism

7/3/97

By Ian Hoffman
Journal Staff Writer

Nuclear weapons scientists from Los Alamos fired metal at plutonium deep under the Nevada desert Wednesday in experiments criticized as a needless gamble with a worldwide ban on nuclear testing.

The price of the research, once pegged at $15 million to $20 million per experiment, has swelled five-fold over two years of delays, to $85 million to $100 million.

It was over in 55 millionths of a second — from firing signal to transmission of pictures and data by optic fibers to a trailer park of computers on the desert floor.

"As far as we know, we got good data coverage," said Don Wolkerstorfer, chief of testing for the Nuclear Weapons Technology Division at Los Alamos National Laboratory.

Scientists admit that after 1,056 nuclear tests and dozens of explosive experiments with plutonium, they still are in the dark about precisely what happens to the enigmatic metal at the heart of an exploding nuclear weapon.

The first of the experiments, code-named Rebound and designed by LANL scientists,

See **SUBCRITICAL** *on* **PAGE 3**

MARK HEPLER/FOR THE JOURNAL

TEST OPPONENTS: Passer-by Orlando Romero talks to protesters, from left, Catherine Smith, Elizabeth West and Linda Hibbs Wednesday on the Santa Fe Plaza.

Subcritical Plutonium Tests Begin

from **PAGE 1**

were triggered late Wednesday morning in a sealed mine room 962 feet underground.

They look at how plutonium behaves when hit by shock waves and by pressures nearly as great as those at the center of the Earth.

Called subcritical experiments, they use silver dollar-sized pieces of plutonium too small to touch off the runaway chain reaction needed for nuclear explosions.

That hasn't kept some critics from blurring semantics and calling them "nuclear tests," as protesters did Wednesday on the Santa Fe Plaza and elsewhere.

Seventeen protesters at the test site were arrested on trespassing charges in the hours before the experiment. Thirty blocked a media bus entering the site. Three chained themselves beneath the bus with bike locks and had to be cut loose.

Forty-four members of Congress last week joined anti-nuclear and disarmament activists in urging President Clinton to order the U.S. Department of Energy to halt the experiments. They argue the research is both unnecessary and provocative at a time when world governments are debating ratification of the Comprehensive Test Ban Treaty.

The treaty's aim is to halt design of new nuclear weapons. Its logic: Nuclear nations will be less likely to add new types of weapons to their arsenals if they can't test them.

As other nations mull ratification, arms-control activist Tom Zamora Collina said, "There may be a perception the United States is undermining the test ban by creating information that could be used to create new weapons."

Even more troubling to many arms-control activists, however, is the refusal by the Clinton administration to invite foreign observers to the Nevada site.

The refusal, Collina argued, is a missed chance for the United States to be a role model and to satisfy the world that the experiments don't produce nuclear explosions that would violate the treaty.

"The question the United States needs to ask is, do we care if Russia does them?" said Collina, director of arms control and international security for the Union of Concerned Scientists in Washington, D.C. "The precedent we're setting is, you can't come and see. It effectively prevents us from saying to other nations, 'We want to see what you're doing.' "

Critics in New Mexico echoed the same themes.

"The DOE can control the physical effects of these blasts underground, but the diplomatic effects are just beginning," warned Greg Mello, head of the Santa Fe-based Los Alamos Study Group. "The Clinton administration is saying to Russia and China, 'Go ahead and test like us.' "

DOE officials say they notified other nations of the experiments and none asked to witness them.

Scientists will feed data from the experiments to a LANL supercomputer being built for simulation of nuclear-weapons explosions.

Scientists say such "virtual weapons tests" aren't intended for design of new kinds of weapons. Rather, the simulations will predict how decades of storage could affect the seven basic warhead and bomb designs in the U.S. nuclear arsenal, estimated at 10,000 deployed weapons.

Weapons designers also hope to see how changes in making the weapons' plutonium cores or pits will affect them. LANL, for example, will start casting the pits and washing them with less hazardous chemicals in 2003 — processes less wasteful and environmentally harmful than those used at the now-defunct Rocky Flats site near Denver.

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Material from the Associated Press was used in this report.

ne Section, 8 Pages 50¢

Free speech or trespassing? 7/8/97

By PETER KRAY
Monitor Staff Writer

What we have here is a failure to communicate.

Members of the Los Alamos Study Group who were arrested at the Bradbury Science Museum on June 7 on charges of criminal trespassing feel their right to free speech is being violated, according to Greg Mello, director of the group.

But Bradbury Director John Rhodes, however, says the group has been invited to participate in a lottery that allows different groups access to available space at the museum.

The Study Group had the entire space from 1992 to the summer of 1995, Rhodes said, at which point the space was "cut in half" to allow access to the Los Alamos Education Group. Rhodes said "dialogue really took off" with the two exhibits side by side, but that it was only "a temporary solution to get us through the summer."

As a long-term solution, Rhodes drafted a series of guidelines for the space, allowing interested groups a chance to compete for representation every six months. He said the Study Group has declined to participate in the lottery, and recently missed the latest deadline to enter an exhibit.

"The idea is to rotate the space so that other groups have access to it," Rhodes said. "The Study Group wants exclusive rights to that space for an anti-nuclear exhibit. But the lab (Los Alamos National Laboratory) and museum can't give the exclusive rights to that space to any one group based on content."

"We needed to create a forward policy to encompass any groups who come along." Rhodes said, adding that when the Study Group began using the space for its exhibit, he hadn't thought of anything like the Education Group, and he wants the space available for Greenpeace or whoever else might feel they have a relevant exhibit.

When the seven protestors were arrested — Karin Salzmann, Jean Nichols, Amy Bunting, Marion Malten, Margaret L. Prince, Gail Haggard, and David Bacon — they were handing out copies of the Bill of Rights, because, as Mello said, "This is at the core of freedom of speech and freedom of press issues."

"It's not clear to us that any laws have been broken," Mello said. "We feel the lab is breaking the law, not us. There's lots of case law that supports the ability of citizens to hand out leaflets. The crux of the argument is that it's appalling that the lab feels that through its policies it feels it can deny people their rights."

Mello said that "it takes a lot of commitment" for people to stand in front of the musuem handing out leaflets, and lately, it's also has been costing protestors a lot of money.

"It's very expensive," Mello said. "Free speech that costs so much isn't free speech at all."

Each of the protestors had to pay a $300 bond, according to Capt. Marla Brooks of the Los Alamos Police Department. Mello said that while waiting for the legal issues to be resolved, the members of the Study Group cannot protest or hand out leaflets.

"We'd like to come back," Mello said, "but we're waiting for a court date."

The pretrial conference for the seven defendants has been set July 23.

LANL spokeman James Rickman said the content of what protestors are handing out isn't of any concern to the lab. It's the location, Rickman said, that's important.

"The policy is not content-specific," Rickman said, adding that groups who protest in areas where such activity is allowed don't have to get their material approved by lab personnel. "But we feel that something like this has a disrupting effect for people who are coming to the museum. If you're a museum patron and you've got someone sticking a leaflet in your face, then that's probably not something you're coming to the museum to do, and it could create friction. Any other group would not be allowed to pass out leaflets in the same location."

"Our position is that it's a trespassing issue," Police Chief Alan Kirk said. "The Police Department is not looking at it as a freedom of speech issue, but rather as the right of a landlord or lessee of a property to request that subjects leave the premises. If someone refused to leave Subway, then he'd be arrested for the same thing."

Kirk, who said four to six police officers responded to the trespassing call, said police repeated the landlord's request that the protestors leave the premises and move to the sidewalk, but the request was denied, and arrests were made.

"The lab will continue to generate interest," Kirk said, "and we'll continue to respond."

"Los Alamos could become more of a magnet for these issues in the future," Mello said. "It's important to keep asking critical questions lest we passively accept the status quo, which is going to change. Only in Los Alamos are a majority of people convinced that nuclear weapons guarantee national security."

As for what right the Study Group has to present its views inside the museum, Rhodes said, "It may have to be tested legally."

Paper: Santa Fe New Mexican, The (NM)
Title: three
Date: July 15, 1997

quake

LOS ALAMOS NATIONAL LABORATORY The bad news is that there are three faults in the vicinity of this nuclear weapons facility capable of producing 7.0 magnitude earthquakes.

The good news is that in these parts earthquakes of that size happen rarely, perhaps only once every 30,000 to 60,000 years.

California this is not.

Still, if you've got nuclear materials on site, you can't afford to ignore 7.0 quakes.

Besides, it turns out there are 22 other faults within a 60-mile radius of the lab. While it's not clear how many are active, their presence suggests that a 6.5 to 7.0 magnitude earthquake could jolt the Los Alamos region every 2,000 to 10,000 years.

To get a sense for how powerful such an earthquake can be, consider the 7.1 Loma Prieta quake that struck the San Francisco Bay Area in 1989.

The temblor unhinged an eight-ton section of roadway on the Bay Bridge, pancaked a double-decker freeway and shook the Marina district of San Francisco so hard that the fill material it was built on liquefied.

Doug Volkman, a structural engineer at the lab, said that if a 7.0 quake erupted in Los Alamos today, it would in all probability knock down some of the laboratory's older facilities including the 44-year-old Chemistry and Metallurgy Research building, which contains radioactive materials.

That's why the lab is in the process of shoring up at a cost of several million dollars a year the CMR building and other facilities that were built to meet normal building code standards but don't conform to modern seismic standards.

Meantime, the lab has embarked on a basic geology research project to get a better handle on precisely what hazards are posed by the three faults, called Guaje Mountain, Rendia Canyon and Pajarito.

Standing on the 400-foot high escarpment west of the lab, LANL geologist Jamie Gardner is matter-of-factly explaining the mind-boggling: repeated earthquakes on the Pajarito fault over a period of a million years that lifted this chunk of land above the surrounding landscape a few feet at a time.

Gesturing eastward across the Rio Grande Valley toward the Sangre de Cristos, Gardner let loose with another mind-boggler: the vast area before us, known to geologists as the Rio Grande Rift Zone, is being stretched like Silly Putty.

East of the river, the land is being pulled east. West of the river, the land is being tugged west. ``Big chunks of land have gotten dropped'' over the past 30 million years, Gardner says.

His words didn't change the fact that, to the uneducated eye, the landscape appeared jumbled and incoherent. But his main message was simple enough: given the countervailing tensions that predominate in the rift, it shouldn't be surprising that relatively big earthquakes happen here.

``There was a 7.2 quake in 1887 in the Rio Grande Rift Zone of Mexico,'' Gardner says. ``The surface rupture came within eight kilometers of the border.''

Socorro was rocked by earthquakes in 1906, a sizable quake struck Cerrillos in 1918 and Dulce was shaken in 1966, Gardner added.

Precisely how often quakes happen on the three faults near Los Alamos is one question Gardner wants to answer. Another is how big the quakes can get. A third is when was the last time the faults busted.

Thanks to some work done in the early 1990s by an Oakland, Calif.-based lab contractor, some answers have

been obtained already.

Visible rock displacements on the Guaje Mountain fault north of the lab show that it most recently shook things up 4,000 to 6,000 years ago. The Rendia Canyon fault, also north of the lab, last ruptured either 8,000 or 22,000 years ago.

The reason for the large uncertainty on the Rendia Canyon fault is that two different rock dating techniques yielded widely varying dates. The lab hopes further study will clarify things.

At the moment, Gardner is focused on the Pajarito fault. So far, seven trenches have been dug in areas where lab geologists think the fault is. Seven more will be dug next summer.

Standing next to one trench that runs about 100 feet through a ponderosa forest and that plunges as deep as 18 feet Gardner is well aware that a previous trenching effort was not fully successful. Geologists didn't dig in any areas that clearly revealed past rock displacements.

``Digging these trenches is kind of like wildcatting. You pick a spot, hedge your bets and you go for it. If you're lucky you might come up with something.''

Gardner said preliminary results from the trenching should be available by the first of the year.

Gardner and Volkman both sought to put to rest concerns raised earlier this year by the **Los Alamos Study Group**, a Santa Fe watchdog organization, that an active earthquake fault might underlie PF-4, the lab's top-secret plutonium research building.

While a geologic map suggested the presence of such a fault, both Gardner and Volkman said the best evidence indicates there is no major fault under PF-4.

Author: Keith Easthouse with mug
Section: Main
Page: A-1

Hecker challenged axiom that we wouldn't use nuclear weapons

Editor: 7/17/97 Monitor

I am writing in response to Ed Walterschied's (June 10) letter to you in response to our Critical Issues Bulletin No. 2, published in the Santa Fe Reporter on May 28. Ed's remarks provide the opportunity to further illumine the issues we raised.

We are grateful to Mr. Walterschied for bringing the full context of (Los Alamos National Laboratory Director) Dr. (Sig) Hecker's congressional testimony to the attention of the Los Alamos community. The original (which can be found at http://www.lanl.gov/projects/PA-/Director/heckerSASC97.htm.) was too lengthy for an ad. In fact, it was hard to pick which parts to use. It was all so indicting. The portions Ed added only make the bellicose nature of Sig's remarks more clear.

Thoughtful readers should note two salient features of Sig's testimony. First, Sig asserts that, with or without nuclear testing, no one should think that "we would be unwilling or unable to use the weapons in our nuclear stockpile."

Throughout the years, it has been very common to hear from lab staff the view that, "Nuclear weapons are maintained so that they will never be used." Anthropologist Hugh Gusterson, in his book Nuclear Rites, goes so far as to call belief in non-use the "central axiom" in the creed of his informants at Livermore. Sig, in his testimony, is now publicly challenging that axiom. To my knowledge, this is a new development.

Second, in what contexts does Sig challenge nuclear non-use? There are two. Look:

[1] The credibility of our stewardship activities has direct bearing on our nation's ability "to project overwhelming force in the defense of our national interests."

[2] Nuclear weapons are the "big stick" that defends our homeland and are the ultimate deterrent force against any potential aggressor.

Threatening the use of nuclear weapons to prevent a nuclear attack on the United States is not a new idea. It is a dangerous idea, and I would argue that the U.S. nuclear deterrent is neither very credible or very useful for deterring the real threats to U.S. security, either internal and external. But most of those who read this letter would probably disagree, and so would most of the U.S. Congress, to the extent they have thought about it.

But Sig goes further, and suggests that stewardship has "direct bearing" on our ability "to project overwhelming force in defense of our national interests." These words are not random, and Sig has placed them in quotation marks. They refer to a broader range of threat than the alleged capability to deter an attack on our "homeland," and this broader threat does not enjoy anything like a consensus of support. It is illegal in many relevant contexts, such as in Africa, where the U.S. has entered into a treaty that prohibits the threat or use of nuclear weapons. It is important to mention Africa, because a 1996 Los Alamos product, the B61-11 earth-penetrator, was explicitly used by Dr. Harold Smith of the Department of Defense on April 23, 1996, to threaten Libya, in violation of that treaty.

Since 1978, the United States has assured the world that it would never use nuclear weapons against non-nuclear countries who signed the Nuclear Nonproliferation Treaty (NPT), unless a country were allied in aggression with a nuclear weapon state. On April 5, 1995, President Clinton reaffirmed this policy, which has been a cornerstone of U.S. nonproliferation efforts, and an important part of the offer the U.S. made to skittish nonnuclear states to induce them to vote for the indefinite renewal of the NPT. Sig doesn't contradict this long-standing policy only if he somehow meant that projecting overwhelming force would only be done against a nuclear state or its ally. In the case of Russia or China, however, the threatened nuclear force would hardly be "overwhelming."

There are a large number of applicable international laws that make nuclear "force projection" illegal. This page is not big enough to discuss them, but fortunately they have already been weighed and sifted by the most authoritative body available, namely the International Court of Justice. And it is in discussion of the World Court verdict that Mr. Walterschied makes important factual and contextual errors that need to be corrected.

First, Ed is superficially right in saying that the World Court decision is advisory only. The court reviewed the existing, binding body of international law—treaties and protocols to which the United States, among other nations, is signatory—and concluded that the "threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law." The World Court decision isn't binding, but the underlying law is binding.

Second, Ed notes correctly that the portion of the opinion we quoted is immediately followed by a statement that the court, given "the current state of international law, and the elements of fact at its disposal, cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a state would be at stake" (emphasis added). This one circumstance, in which the court declined to rule, is exactly why the justices put the word "generally" in the preceding passage—and why the preceding passage is the single best and most accurate summary of the court's opinion.

Mr. Walterschied mentions that the final opinion was the result of a 7-7 tie, broken by the president of the court. What he fails to mention is that three justices—Weeramantry, Shahabuddeen, and Koroma—dissented from the final opinion because they opposed the threat or use of nuclear weapons under any circumstance and hence opposed the "extreme circumstance" loophole, making the vote for general illegality effectively 10-4.

Should there be any doubt about the court's sentiments regarding the final legitimacy of nuclear weapons, the court unanimously concluded that "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."

As we said in our Critical Issues Bulletin No. 2, nothing in the Court's decision provides a legal basis for a claim that nuclear weapons can legitimately "project overwhelming force in the defense of our national interests." Deterrence itself is not given either legitimacy or no legitimacy but is given, at best, only temporary and provisional acceptance on the basis of states' practice.

We would be happy to mail anyone a full copy of the opinion and the dissenting opinions of all the judges — important to understand the full context of their votes — at our cost, which is about $25. The main opinion is available on the web at http://www.igc.apc.org-/disarm/icjtext.html, though to my knowledge no one has put the voluminous dissenting opinions on the web.

Greg Mello
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Paper: Albuquerque Tribune, The (NM)
Title: Sandia boss's stance against NIF fuels rumors of his firing
Date: July 18, 1997

Reports of his demise in the nuclear-weapons world appear to be greatly exaggerated, says Paul Robinson, president of Sandia National Laboratories in Albuquerque.

But Robinson acknowledged that his stance against the controversial $1.2 billion National Ignition Facility has fueled rumors.

But he said he has not been threatened with losing his job.

"No one has tried it overtly, as far as I know," said Robinson, who directs one of the nation's three nuclear-weapons labs owned by the Department of Energy.

NIF, a nuclear-weapons blast simulator, has been presented to Congress as a costly trade-off for banning underground nuclear tests.

Despite what Robinson says, speculation of how his stance on the NIF may jeopardize his job security have circulated through various rumor mills:

* Among weapons scientists at the nation's nuclear-weapons labs, some of whom also have openly questioned NIF.

* Within activists' organizations that have challenged NIF in a court battle with the DOE.

* Among arms-control advocates who say the rumors are part of a debate over whether the Senate should ratify the Comprehensive Test Ban Treaty.

* And over the Internet, where a scientist has chastised DOE for its "fear of debate and open inquiry."

Adding to the speculation is a recently passed U.S. Senate amendment -- introduced last week into the Defense Authorization Act for 1998 -- that protects nuclear-weapons lab directors' rights to dissent from official DOE policy on the warhead stockpile.

Scientists and activists viewed the Senate action as an effort to protect Robinson, but it also covers directors at Los Alamos and Lawrence Livermore national laboratories, members of the Joint Nuclear Weapons Council and the commander of the U.S. Strategic Command.

Robinson, a former director of nuclear-weapons programs at Los Alamos Lab and a former U.S. nuclear-treaty ambassador, said he doesn't think NIF is the answer to ensuring the nation's nuclear warheads.

"I have had some strong disagreements over the cost of the NIF with (DOE's) Vic Reis," he said.

On several occasions, including in testimony to Congress this past spring, Robinson has raised concerns that the sophisticated NIF may consume so much of DOE's budget that it will hurt other fundamental programs aimed at ensuring the health of the nation's nuclear-warhead stockpile.

Reis, DOE assistant secretary for defense programs, denied that he or any other DOE official has intimidated Robinson into resigning or attempted to have him fired through Lockheed Martin Co., which manages Sandia for DOE.

"Absolutely not," Reis said Wednesday. "Paul is a vigorous advocate of Sandia and the Sandia program, and I expect him to be so. I encourage vigorous debate."

The NIF lightning rod

NIF, a military fusion laser that DOE and Reis say is critical to maintaining warheads during a test ban, has been under fire by the department's own physicists, as well as anti-nuclear and environmental groups.

The project is under construction at the Livermore Lab in California. Livermore officials acknowledge that, without the project, their lab and its jobs might be on the endangered list.

Several retired and current weapons scientists from all three of DOE's nuclear-weapons labs have said NIF has little or no relevance to ensuring the safety and reliability of existing U.S. warheads.

Erick Lindman, a Los Alamos fusion scientist, has said scientists' odds on NIF success "are all over the place."

Gary Craddock, a former Livermore lab physicist now living in Albuquerque, has said such projects "represent a welfare program for the DOE labs."

A consortium of 39 activist groups, including four in New Mexico, are trying to stop NIF in federal court in Washington, D.C.

They contend the project and DOE's entire $4 billion-a-year stockpile stewardship program violate federal environmental laws.

Reis has testified that NIF is essential on "a national security basis." He and others in DOE and at Livermore contend it is central to the nation's stewardship of thousands of nuclear weapons.

A judge hasn't ruled, but in another case, a federal judge did prohibit DOE from using in its battle for the NIF an expert report by the National Academy of Sciences, which was favorable to the project. The court found that the expert panel's review failed to provide public access.

A showdown in the wings

Robinson's immediate boss, Al Narath, said that no one has asked him to fire or threaten Robinson.

But Narath noted that Robinson is not powerless in any showdown with DOE over program substance. He is one of three lab directors who must certify in writing to the president and Congress that the nation's nuclear warheads are reliable and safe.

"If we ever get to a point where a lab director did not sign it," Narath said, "it would be a big deal."

Narath is the head of the Lockheed Martin Energy Systems in Albuquerque, the division that manages Sandia and several other national labs under a contract with DOE. He also is Robinson's immediate predecessor at Sandia's helm.

Narath said he concurs with Robinson's stance, even if it upsets some DOE officials.

"I think Paul has taken a very responsible position on this right from the very beginning . . . (asking) at what level the funding for the NIF becomes unaffordable," Narath said.

Sandia plays the lead role in the engineering, safety and firing issues for the nuclear-weapons program. Robinson says that scientific expertise, not new machines, are "the most important part of the program."

"It's certainly a subject Vic (Reis) and I have disagreed on, and I think we're trying to work to get it resolved," Robinson said.

This week, Reis postponed a visit to New Mexico to review programs at Sandia and Los Alamos, saying budget business compelled him to stay in Washington.

Firing off rumors

Some observers say the rumor itself may be the weapon aimed at intimidating Robinson in the high-stakes NIF game. His lab is developing an emerging technology, an X-ray accelerator, that some scientists say will be a far cheaper option.

Marvin Mueller, a retired Los Alamos Lab physicist who has criticized DOE's military fusion program for a decade, says "that scenario makes sense."

"Perhaps a message was passed down the line in a much more subtle way," Mueller said. "I don't think there's any doubt something is going on here."

He is among those who heard Robinson's job was on the line.

Chuck Cranfill, a Los Alamos nuclear-weapon computer scientist, also has heard the rumor.

"Since then, management below him (Robinson) has been reluctant to talk openly about the value of NIF," Cranfill said.

Mueller said he was concerned enough to make the allegations public, criticizing DOE's "strong-arm tactics" in

an open letter on the Internet Web site of the Federation of American Scientists.

The federation is a non-profit science policy group founded in 1945 by members of the Manhattan Project that produced the first atomic bomb.

Referring to "the reported attempt by Victor Reis to get Paul Robinson . . . removed from office," Mueller compared DOE's management of fusion research to the Spanish Inquisition's attempts to gag science.

"My reaction stems from a long history in the DOE fusion programs of stifling and squelching dissent from scientists who don't hew to the DOE's 'party line,'" he wrote.

Mueller's research was a victim of that, he said, when the Antares fusion laser at Los Alamos was scrapped in 1986.

It happened just after he did an independent experiment that confirmed a new technology that might compete with Livermore's laser approach -- an approach that has come to dominate the field of military fusion.

Mueller said the new technology, a hydrogen fluoride laser proposed by fired Los Alamos fusion physicist Leo Mascheroni, still has not gotten a fair hearing from DOE as a NIF competitor.

Mascheroni, who continues a decadelong fight to resume his research, says he also heard from Los Alamos scientists that Robinson was under fire.

Greg Mello, a NIF critic at the **Los Alamos Study Group** in Santa Fe, said the anti-nuclear community believes a U.S. senator came to Robinson's rescue.

A section of the Senate Defense Authorization Act passed last week specifically protects nuclear-weapons lab directors.

Sponsored by Arizona Republican Jon Kyl, it states that the "sense of the Congress" is that nuclear-weapons lab directors may disagree with official DOE policy.

Kyl's spokesman, Vincent Solitto, said he couldn't say what motivated Kyl. But, he said, given the Robinson rumors, "This would seem to take care of it."

Spokespeople for New Mexico Sens. Pete Domenici and Jeff Bingaman had no immediate comment.

Author: Lawrence Spohn TRIBUNE REPORTER
Page: A2

7/20/97

LANL, testing

We are writing to clear up any misunderstanding that may have been created by The New Mexican article of June 25, 1997, LANL Nuke Test Gets Go Ahead. The coalition of 39 peace and environmental organizations (which includes our groups) that is suing the Department of Energy on environmental grounds opposes the two subcritical underground nuclear experiments planned this summer at the Nevada Test Site. The coalition of plaintiffs has not dropped subcritical tests from the lawsuit, only from the request for preliminary injunction blocking expansion of the nuclear weapons complex until adequate public review has been completed. Our challenge to the underground subcritical nuclear tests slated as part of the DOEs Stockpile Stewardship and Management Program is very much alive.

The coalition charges that DOE failed to produce a legally adequate programmatic review of its proposed stewardship program for the nations nuclear arsenal, including the subcritical tests. Regarding the subcritical experiments, these alternatives should certainly include conducting them above-ground, not conducting them at all, and closure or conversion of the test site itself. The coalition may still request the judge to issue, as part of his final ruling, an injunction permanently enjoining subcritical tests and other parts of the weapons complex until adequate analysis is completed.

At a hearing on the motion for preliminary injunction on June 17, Judge Sporkin appeared unwilling to undertake a detailed analysis of DOEs national security claims regarding the imminent subcritical test in his courtroom. While not persuaded there are any true national security concerns, in view of the judges attitude, on June 24 the coalition limited its request for preliminary injunction to certain key facilities in DOE plans the $1.3 billion National Ignition Facility at Livermore Lab in California and upgrades to the Chemical and Metallurgical Research (CMR) Building and the Nuclear Materials Storage Facility (NMSF) at Los Alamos. Because of Congresss own doubts about NIF and the CMR upgrade, the House of Representatives has recently proposed to fence appropriations for those two facilities. We believe that Congress will look skeptically at the NMSF as well. That facility, an underground storage vault for plutonium pits, was built in the mid 1980s for $25 million, but never used because of fundamental design deficiencies and shoddy construction. LANL is now preparing to rebuild it for $56 million, with possible storage capacity for 5,000 plutonium pits. Approval for the rebuild is exempted from public review on the basis of an environmental assessment over a decade old.

Scores of major public interest groups, including the plaintiffs in this case, also staunchly oppose the subcritical nuclear experiments as unnecessary, provocative to other nations, and contrary to U.S. nonproliferation and disarmament policies. These groups, including many of the plaintiffs, organized a national call-in day June 26 to DOE headquarters to call for cancellation of the subcritical tests, the National Ignition Facility, and other new weapons facilities and upgrades. This opposition is gaining momentum, and has spread to the Congress where 44 representatives recently sent a letter to the president urging that the tests be canceled. According to these representatives, The U.S. is unwisely creating a testing norm under which other nations could justify conducting similar underground nuclear weapons experiments at their test sites.

We co-plaintiffs believe that the United States is setting a terrible international example, so soon after the signing of the Comprehensive Test Ban treaty. Our opposition to these tests remains strong, and the future conduct of such tests as part of DOEs overall stockpile program remains a vital element in the environmental lawsuit.

Jay Coghlan

Concerned Citizens for Nuclear Safety

Barbara Finamore

Natural Resources Defense Council

Greg Mello

Los Alamos Study Group

Section: Outlook
Page: F5