# Nation should reconsider nuclear treaty, report says

1/06/00

By KRISTEN DAVENPORT
The New Mexican

A report issued Friday that urges the federal government to reconsider the Comprehensive Test Ban Treaty also says the United States needs more nuclear pits — the explosive, radioactive hearts of nuclear bombs — that would likely be manufactured at Los Alamos National Laboratory.

Retired Gen. John M. Shalikashvili, who served as head of the Joint Chiefs of Staff from 1993 to 1998, issued the results of his study, saying that for the sake of slowing down the worldwide nuclear-arms race, the United States must reconsider the treaty. The U.S. Senate voted in 1999 against the treaty 51-48, far short of the two-thirds approval needed to ratify it.

Shalikashvili's report says President-elect Bush should consider the merits of the treaty, although during the campaign, Bush opposed it. However, Bush also promised to continue the U.S. ban on nuclear testing.

But Shalikashvili's report also said the United States needs to do more to maintain its current stockpile of nuclear weapons. The country should add policies that could help make sure the treaty does its job — stopping other countries from doing nuclear testing, the report said.

The United States should increase intelligence efforts and construct a new factory to manufacture plutonium pits. The pits, made of plutonium, tritium and other materials, trigger a nuclear explosion.

The U.S. Department of Energy and lab planning documents have indicated for several years that LANL would likely end up being the national center for production of nuclear pits. The facility would probably be built at Technical Area 55, at the core of lab property.

In November, LANL management unveiled its new beryllium processing facility. Beryllium is a toxic metal that can cause fatal lung disease — and is also used in nuclear pits. The metal is used to reflect neutrons back into the fissioning core of the nuclear bomb.

Anti-nuclear activists worry that a pit-manufacturing facility in Los Alamos would put New Mexicans at greater risk of contamination because more radioactive material would be handled at the lab.

The Los Alamos Study Group put up a billboard on Interstate 25 last month suggesting that Los Alamos might soon be home to a pit-production facility: "Nuclear-weapons production — here. It's the pits."

But Shalikashvili and others say putting more money into pit production and maintaining weapons the United States already has in reserve through the U.S. Stockpile Stewardship program might be one way to persuade the Senate to ratify the treaty.

# Nuke Report Vexes Activists

## Group Fears LANL Will Become Warhead Producer

1/6/00

By Jennifer McKee
*Journal Staff Writer*

Local activists fear Los Alamos National Laboratory could be the new home for a potential warhead plant alluded to in a State Department report released Friday.

Retired Gen. John Shalikashvili, former chairman of the Joint Chiefs of Staff, was tapped last year to review the failed Comprehensive Test Ban Treaty by Presiden Clinton and Secretary of State Madeline Albright. H released his report Friday.

While much of his findings centered around the global spread of nuclear weapons, a small portion of the report focused on maintaining the nation's existing — and aging — supply of nuclear weapons, also known as "the stockpile."

"The National Nuclear Security Administration (a semi-autonomous arm of the Department of Energy) should make a decision as soon as possible about the need for a large scale plutonium pit remanufacturing facility," the general wrote.

**Request to ratify**

Clinton urges the Senate to address the Nuclear Test Ban Treaty **A8**

Plutonium pits are the nuclear guts of a warhead and contain radioactive plutonium, which is known to decay over time. The United States currently has no manufacturing plant for nuclear bombs. Los Alamos National Lab has been designated as the official source of new or remanufactured pits, said lab spokesman Jim Danneskiold, although the lab hasn't built a weapons-ready pit in the four years since DOE officials christened it the nation's new pit center.

Greg Mello, of the Santa Fe-based Los Alamos Study Group, said the report all but points to Los Alamos as the site of any new larger-scale pit plant.

"That's been DOE's constant plan for the last eight years," said Mello, chairman of the lab watchdog group.

*See* **NUCLEAR** *on* **PAGE 3**

# Nuclear Ban Treaty Report Worries Activists

*from* **PAGE 1**

He pointed to reports from the DOE's Albuquerque Operations Office that call for an additional $500 million over the next 15 years for new buildings and facilities earmarked for expanded pit production.

He's vowed to oppose the growth tooth and nail.

"We will fight pit production at any level, other than simple maintenance of the technology, with all means at our disposal," Mello said. "The northern New Mexico community has fought this in the past."

But according to Danneskiold, Mello needn't arm himself just yet. True, Danneskiold said, Los Alamos is the only source of new pits in the country right now. But the lab was charged only with maintaining the know-how and technology to make new nuclear weapons, not the full-scale rebuilding of the nation's nuclear weapons. Under the grandest projections, Los Alamos scientists will only be making 50 new pits a year, he said, and so far they haven't made a single one fit to be implanted in the nose of a warhead.

"There have never been any plans for large-scale pit manufacturing at Los Alamos," Danneskiold said.

Another anti-nuclear activist agreed.

Jay Coghlan of Nuclear Watch of Northern New Mexico, also based in Santa Fe, said Friday a pit plant on the mesa is the least of his fears.

More upsetting in Shalikashvili's report, Coghlan said, was the general's argument for both the Comprehensive Test Ban Treaty, which would forbid nuclear testing among member nations, and the need for new or remanufactured pits, which are part of the national Stockpile Stewardship Program. Stockpile Stewardship, by rebuilding and making slight changes to the weapons, violates the 30-year-old Nuclear Nonproliferation Treaty, Coghlan said.

# Additional violations alleged at LANL

▶ *New Mexico Environment Department might fine lab for 30 more hazardous-waste violations*

By SHONDA NOVAK
The New Mexican

Two weeks after being hit with a proposed $1.2 million fine for alleged hazardous-waste violations found in 1997, the state is proposing to fine Los Alamos National Laboratory about $846,000 for similar alleged infractions discovered during a 1998 annual inspection.

In the most recent compliance order, the New Mexico Environment Department is proposing a penalty of $845,990 for 30 alleged violations of the New Mexico Hazardous Waste Act and waste-management regulations.

*Several of the lab's technical areas were inspected, turning up such violations as failing to do required work to characterize what is in lab waste and failing to keep adequate control of waste.*

The violations were found by the department's Hazardous and Radioactive Materials Bureau during its 1998 annual inspection between Aug. 10, 1998, and Sept. 18, 1998, lab officials said in a statement Thursday.

Several of the lab's technical areas were inspected, turning up such violations as failing to do required work to characterize what is in lab waste; failing to keep adequate control of waste; improperly marking waste containers; and exceeding the time limits to store hazardous wastes.

The state said there also were instances where the lab failed to maintain proper paperwork and perform inspections, and where some lab employees failed to participate in training refresher courses "in a timely manner."

Please see **LAB**, Page B-5

## LAB

**Continued from Page B-1**

In addition, inspectors found that the lab lacked an eyewash station, a fire extinguisher and communication devices at some facilities that handle hazardous waste.

Los Alamos officials said they will meet with Environment Department officials to respond to the allegations in both the 1997 and 1998 compliance orders.

The 1997 order, issued in late December, contained 29 violations similar to those alleged in the latest order. The state proposed a $1.16 million fine for the 1997 violations.

The infractions found during the 1997 inspection were repeat violations, meaning the same type of problems had been found during previous inspections, according to a fact sheet the lab provided.

In both cases, Dennis Erickson, director of the lab's Environment, Safety and Health Division, said in a statement that none of the violations posed an immediate risk to the public's health and safety and that the lab continues "to work to ensure that all concerns surrounding these alleged violations are addressed."

James Rickman, a lab spokesman, said Thursday the lab would have no additional comment beyond Erickson's statement.

After the 1997 order was issued, lab critic Greg Mello said that the lab has had hazardous-waste compliance problems since the mid-1980s, when inspections began. Mello, a former hazardous-waste inspector for the Environment Department, is now director of the Los Alamos Study Group, a watchdog group in Santa Fe.

Mello said last month that the state has been lax in issuing enforcement actions at Los Alamos for hazardous-waste violations, and that he was pleased to see the state taking action.

ENVIRONMENT

1/12/00

# FAREWELL TO ARMS

## Abolitionists went one step over the line New Year's Eve.

BY JULIA GOLDBERG

**Mello's most recent article on nuclear policy, "That Old Designing Fever" appears in the January/February issue of the *Bulletin of the Atomic Scientists*, online at: www.bullatomsci.org**

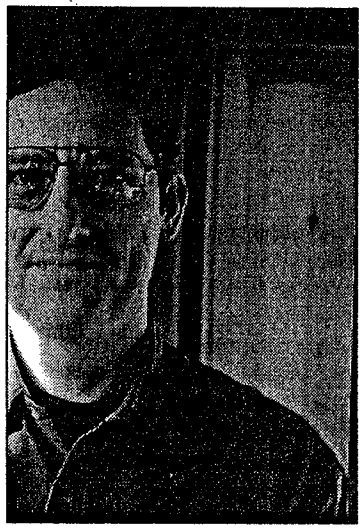
Bunking down with nuns and getting arrested may not be everybody's idea of a party.

But for Greg Mello it was the perfect way to begin the new year.

Mello is director of the Los Alamos Study Group, a Santa Fe nuclear watchdog association. He journeyed to Nevada and rang in Jan. 1, 2000 with several hundred other activists from around the country. At midnight, Mello said he and about 300 others were arrested at the Nevada Test Site, near Las Vegas. They had traveled there to spend the final hours of 1999 in protest of subcritical nuclear testing at the site and U.S. nuclear policy.

Mello's countdown began Dec. 29 when he drove from Santa Fe to Las Vegas. The conference which brought the activists together was called "Millennium 2000: Walking the Ways of Peace," and was held in a Catholic high school.

It was organized by a Franciscan-based organization,



The Nevada Desert Experience, an anti-nuclear organization. Mello's quarters the first night was a Franciscan friary where he slept, he says, "in the company of radical nuns," while others camped in the high school gymnasium, "in a giant slumber party."

The presentations at the conference were varied. Attendants included many interfaith representatives, as well as organizers from groups working for the poor in Latin America, against homelessness in the U.S., and to improve education. Mello's own talk was on Buddhism, ("I was the token Buddhist"). Included in the crowd were actor Martin Sheen and renowned writer Jonathan Schell. Sheen also was a protester last summer at Los Alamos National Laboratory, and Schell recently gave a benefit lecture in Santa Fe for Peace Action New Mexico.

On New Year's Eve, the group marched to the test site. "There were luminarios guiding us in the dark and then we got our candles and marched across the desert in a line half a mile long. It was cold, about freezing," he said.

At the entrance, Nye County Sheriffs' deputies and guards from Wackenhut Corporation were waiting, a cattleguard separating them from the protesters.

"Martin Sheen carried a bell, which he was ringing as he walked. At the stroke of the new millennium, the first people crossed into the test site and into the arms of the arresting officers," Mello said.

Mello was arrested and put into a holding pen with the rest of the male arrestees. The arrest process was nonviolent, he said. "I heard one of the lady guards tell her colleagues, 'Martin Sheen put his arm around me.'"

After a few hours, Mello and the others were released, with a $330 fine and a notice that they would be summoned to appear in court at a later date.

After getting a few hours sleep, Mello and the others went to the Las Vegas strip to march in protest again, handing out leaflets against the testing of nuclear weapons. "We had a very substantial police escort," he said. "Bigger than Clinton got in Los Alamos."

The experience revved Mello up for the coming year's anti-nuclear activities. He sees 2000 as a critical time for such work, particularly in the wake of reorganization strategies for the Department of Energy. The pending implementation of a new National Nuclear Security Administration is of grave concern, Melo says. "Citizens need to realize that U.S. nuclear weapons policy is now in freefall. If they do not organize themselves and step forward, the vested interests of our new controlling security policy will just write their own tickets."

Mello doesn't have any immediate plans for getting arrested again, but the Los Alamos Group is organizing a silent vigil to take place at the lab in the spring.

# Los Alamos drinking wells test radioactive

▶ *Trace amounts of tritium and strontium-90 found are too low to harm humans*

1/14/00

By KRISTEN DAVENPORT
The New Mexican

The New Mexico Environment Department has found low levels of radioactive chemicals in two drinking wells near Los Alamos.

Greg Mello, head of a Los Alamos National Laboratory watchdog group, says this is the first time the chemicals — tritium and strontium-90 — have been found in the area's drinking water, as opposed to monitoring wells.

On a visit to about a dozen wells on March 9 and June 6 of last year, Environment Department records show, investigators found trace amounts of the radioactive materials in two wells.

Neither of the wells contained enough of the radionuclides to cause harm to humans according to U.S. Environmental Protection Agency standards.

At a well known as Otowi-1 — in Los Alamos canyon just upstream from the turnoff to White Rock — environmental oversight agents found tritium levels at 40 picocuries per liter. Dangerous levels aren't reached until about 20,000 picocuries per liter.

At another well called PM-1, on Jemez Road, Strontium-90 was found at about 1.14 picocuries per liter. The EPA says eight picocuries per liter would be dangerous to humans.

Department of Energy environmental contact Joe Vozella could not comment Thursday night, saying he needed to look again at the data, and Los Alamos National Laboratory officials could not be reached.

Although the levels of the radioactive chemicals are low and were not found in several other drinking wells in the Los Alamos area, Mello said the finding is significant because it proves radioactive chemicals can penetrate as much as 1,000 feet beneath the hard bedrock of the area — something scientists have been skeptical could happen.

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

# WELLS

**Continued from Page B-1**

"Contaminated water does flow downhill even at Los Alamos," Mello said.

Tritium is a radioactive, colorless gas with a half-life of about 10 years used to boost the power of nuclear bombs.

Strontium-90, a byproduct of weapons testing, has a half-life of about 28 years and concentrates in high doses in humans' bones and teeth because of its similar structure to calcium.

Radioactive materials are known to cause some cancers in humans at high concentrations.

About a year ago, lab officials found that water in a monitoring well was contaminated with high explosives.

The well was near a building that was used during the Cold War to produce high explosives for nuclear warheads.

The high explosive was found ranging from 4.2 parts per billion to 50 parts per billion; the safe levels according to EPA standards are about 2 parts per billion.

The explosive can cause seizures in humans, although long-term effects are unknown.

That contamination was not found in the city's municipal water supply at the time.

Along with the state testing of drinking wells, LANL is involved in its own $50 million groundwater project, drilling 32 deep monitoring wells.

# Evidence Points to Contamination

■ *Scientists report finding signs of radioactive pollutants in Los Alamos water wells*

BY IAN HOFFMAN
*Journal Staff Writer*

1/14/00

State scientists have found the strongest evidence ever that Los Alamos' drinking-water wells are tainted by radioactive contaminants.

The pollutants — tritium and strontium-90 — tested at levels below federal standards to protect human health. But if confirmed, their existence shores up other evidence that the leavings of Cold War nuclear weapons work are reaching the drinking water of Los Alamos County residents.

Hydrologists for the state and Los Alamos National Laboratory plan to retest two water-supply wells in which the state reports detecting the two contaminants.

One well, called Otowi-1, produced a single sample of tritium last June at two thousandths of the federal drinking-water standard. In a second well called Pajarito Mesa-1, state hydrologists found strontium-90 at about an eighth of the federal standard.

Both discoveries were beyond the margins of error for laboratory analyses, according to the state's reports.

*See* **EVIDENCE** *on* **PAGE 3**

# Evidence Points to Well-Water Contamination

*from* **PAGE 1**

"We believe it's the first defensible tritium detection in a production well," said hydrologist Michael Dale of the New Mexico Environment Department.

Still, Dale said, "it's only one sample, and we have to go back and verify it. We have to see if it's reproducible."

Los Alamos lab officials said they still are studying the state's reports.

"It's been known that there's tritium in the deep aquifer" that supplies drinking water to Los Alamos County, said lab spokesman James Rickman. "And this is well below drinking-water standards."

"This argues for continued monitoring and surveillance," he said.

Tritium, a radioactive form of hydrogen that travels through soil and rock as readily as water, is a common byproduct of nuclear research. But it can be created naturally by the interaction of cosmic radiation with atmospheric moisture. It also exists as a remnant of above-ground nuclear testing that is slowly deposited back to Earth.

But the detection of strictly man-made strontium-90 is stronger evidence that the contamination is emerging from past operations at Los Alamos lab.

Lab and state scientists are finding a growing array of contaminants in water hundreds of feet below the lab. They range from meager concentrations of tritium to high-explosive compounds at levels several times beyond federal health advisories. But all those samples came from environmental monitoring wells.

The public water-supply wells where the latest contaminants were detected are designed to pump millions of gallons of water from a thick swathe of saturated rock and soil. Because of the heavy dilution and the large zone from which water-supply wells draw, Dale said, "to see any tritium in a production well is very significant."

"What it shows us is there is some source — whether atmospheric or the lab — and tritium is getting down there. And with dilution, it shouldn't be that high," said Steve Yanicak, manager of the White Rock-based state environmental office that oversees LANL.

Environmentalists and arms-control advocates point to the new data as backing for their criticism that the U.S. Department of Energy and Los Alamos lab should direct money they spend most heavily on studies to actually removing contaminants.

"I don't think the implications of these findings can be quickly understood or dismissed," said Greg Mello, head of the Santa Fe-based Los Alamos Study Group, a private arms-control organization. "But when you've got contaminants in the deep aquifer above health advisory levels in one place and now you have contaminants in production wells in two other canyons, the idea that Los Alamos can just leave tons and tons of radioactive and toxic wastes in the ground forever needs to be seriously reevaluated."

Paper: New Mexican, The (Santa Fe, NM)
Title: Striking a balance
Author: Janet Eigner, photos by Shawn Poynter
Date: January 28, 2000
Section: Pasatiempo
Page: P-16

The odor of toasted velvet smells remarkably like that of toasted marshmallows. Adding to his credits as world-class choreographer, tap dancer, and genius at pairing classical music with dance, Bill Evans became a reluctant fire chief during Taptacit, his opening a cappella tap work at Los Alamos High School's Smith Auditorium Jan. 21.Caused by stage lights placed too close to a side curtain, the minor distraction gave new meaning to the **Los Alamos Study Group**'s antinuclear bumper sticker: It Started Here. Let's Stop It Here.

Not missing a beat, Evans glided and clicked across the stage. Calmly, urgently, he called to the wings.

``Would somebody put out the fire in that curtain?''

When no one responded from the wings, Evans called ``bye,'' to the audience, waved and tapped off. He returned a minute later, mission successful, to restart Taptacit, rhetorically asking, ``Would you mind if I back up a few bars?''

The remaining concert matched the excitement of the fire, one fresh, surprising work after another. Synchronicity reigned. Evans substituted the name El Fuego (The Fire) for his first title, Soliloquy, a tap work that smoldered and twitched to Joanna de Keyser's equally virtuosic performance of Zoltan Kodaly's Sonata for Unaccompanied Cello.

Evans tapped as fast as he could last weekend, appearing with The Bill Evans Dance Company and Willy Sucre Trio in Los Alamos on Friday and in Sandia Park Saturday.

In Albuquerque Sunday afternoon, Evans' company donated and performed three of the works to Dancing For The Future, a concert produced by the University of New Mexico's Friends of Dance as a fundraiser for dance-department scholarships. The intimate Rodey Theatre was the ideal venue for these small ensemble works.

The remarkable and stellar dances of Evans' company, combined with the sonorous chamber music of the Willy Sucre Trio, overshadowed the fine work of three other New Mexican choreographers. Still, these younger choreographers Lane Lucas, Jill Pribyl, and Celia Dale held the audience's attention as they plumbed other modern-dance realms.

In Surfacing, Dale presented the most classical modern-dance form to a delicate, synthesized score by Elliott Sharp. To focus the rapid, serpentine leg lifts and twirls, the dancers emerged from behind a huge, stringed rectangle, approximately 10 by 8 feet. Like a vertical loom, the set hovered just above the floor.

Dancers Helena Chalverus, Emily Hess-Haughey, Jillian Pena and Jennifer Perez wove in and out of the thin white warp and slid into splits onstage, energetic shuttles flung by a practiced hand.

Lucas' droll performance-art solo Paris kept the audience chuckling and children laughing. To a tape of her own script, Lucas pantomimed Ten Reasons I Never Went to Paris. Guitarist Steve Peters appeared onstage to undergird Lucas' monologue with a few soft riffs.

Pribyl's Selatrop thumbed its nose at classical romantic notions. Three ennui-drenched ballerinas danced mainly with white plastic lawn chairs. Well-crafted choreographic design nonetheless motivated their restless, irritable movements. Barefoot, and in net prom gowns, Tessa Burchardt, Sara Bennett and Pribyl flopped about each other, their chairs and the stage. Each used quirky but finely executed modern technique gracefully held arms, well-flexed feet and contracted torsos.

The sound track of frog and bird calls added to the spoof, a noodley Disneyesque Waltz of the Flowersmeets-Saturday Night Live.

Providing a believable aesthetic for romance, Evans' dance company Linda Johnson-Gallegos, Don Halquist and Debra Wright Knapp appeared in two elegant ensemble collaborations with the chamber-music artists violist Sucre, cellist de Keyser and trombonist Debra Taylor.

As a fine oriental rug cushions and enriches a room, the restrained and rapturous chamber music fit hand in glove with the refined, modern choreography.

Revisitations, to Vincent Persichetti's Serenade Number 6, Op. 44, opened the concert. Four Movements and Three Dances followed, to Beethoven's Trio, Op. 87. Evans provided choreography for the two classical works. He closed the program by performing a remarkably thoughtful and joyous tap work to Samuel Barber's Excursions.

Persichetti's complex and introspective composition was published in 1964. The dance's premise was a tender, late-evening reminiscence after the ball. The dancers straggled onstage, one by one, removed shoes and ties, and seated themselves on wooden stools among the formally dressed musicians.

Preoccupied with the night's dramas, they danced with a silken lyricism in solos, duets and trios.

Revisitations' after-image is a serpentine diagonal, traversing the fitted, long dance gown that drapes and extends the female body's edge from long leg and hip to arched neck and raised arm.

Dressed in formal black-and-white, the trio of dancers Halquist, Johnson-Gallegos and Knapp poured into and from each other, wound and unwound. Like archers, each knew how long to hold the body's arrow and when the bow was taut enough to let go.

The women flew and landed in their next placements, vivid, cushioned, still vibrating. Halquist, a tall, rangy dancer, stood on one leg and bicycled the other in slow motion, arms pumping, to a poignant trombone. He slid from tai chi-like movements to a one-armed backbend. Knapp rapidly walked to his shoulder and helped him rise, using tender gestures.

Knapp expressed a universe of emotions with the rapier precision of her movement. Gaminlike, she continued Halquist's large rotary movement with her shoulder, shrinking its size and accelerating the speed.

The dancers' energy was artfully balanced. To Knapp's fiery intensity was Johnson-Gallegos' dream-quiet power. To the women's highly skilled technique was Halquist's thoughtful strength.

Like skilled players at cat's cradle, the dancers wound, unwound, knew when a needed pause would create a still point, and miraculously interpreted Persichetti's seven-movements composition.

A similar deep concentration and a playful, restrained sensuality marked Four Movements and Three Dances to Beethoven's Trio Op. 87.

Knapp and Johnson-Gallegos again wore classic, modern-dance gowns a splash of soft fabric that covered one shoulder, clung to the upper torso, then descended to the ankle like a waterfall. Only out of place was the acrobatic choreography assigned Halquist handstand, cartwheel and somersault that neither fit the classical aesthetic nor his talents.

After the musicians played the allegro alone onstage, Halquist and Johnson-Gallegos began the adagio around the fulcrum of a handclasp, Johnson-Gallegos' back arched to an extreme, away from Halquist, their bodies forming a V. At a point of pull and pause, Halquist broke the tension, stepping over his partner's torso, aiding her rise.

The couple's lifts seemed to banish gravity. He guided her upward slide onto his back and she glided back down.

By contrast, Knapp stood before Halquist and somehow morphed herself into a triangle one knee bent up, one leg straight out. Halquist held her firmly and tilted her into the air like she were a prized broom shaken up and down.

Evans based some of his choreography on variations of the dancer's formal bow, so that each movement began and ended with surprising solo, duo or trio bows. The bow involved a pair rocking from the fulcrum of each other's weight.

Bows and beyond, Evans' consummate choreography, so eloquently interpreted by the artist and his company, explores the full reaches of the human body and soul.

Author: Janet Eigner, photos by Shawn Poynter
Section: Pasatiempo
Page: P-16

# DOE Seeks More Cash To Cover Nuke Costs

## Officials Cite Aging Weapons Factories

2/8/00

By John Fleck
*Journal Staff Writer*

Maintaining the aging U.S. nuclear arsenal is more costly than earlier believed, Energy Department officials acknowledged Monday in asking for a significant budget increase next year.

In laying out a $4.6 billion spending proposal for next year, they acknowledged they need to funnel more money into their aging nuclear-weapons factories to keep them open and running.

The spending plan is 6 percent above this year's budget.

Energy Secretary Bill Richardson said as recently as December, during an Albuquerque news conference, that $4.5 billion a year would be sufficient to pay for the labs and factories responsible for maintaining the U.S. arsenal.

In a news conference Monday, Richardson acknowledged that problems found in a program review last fall — aging factories, a loss of skilled workers and pressure from the Defense Department to meet an ambitious schedule for refurbishing weapons — means the budget has to go up.

The request for a $273 million budget increase calls for more money for massive research computers at the weapons labs to simulate nuclear-weapons blasts, and an increase in spending on manufacturing plutonium weapon parts at Los Alamos National Laboratory.

Despite the increase, however, it might not be enough to do all the work required, Sen. Pete Domenici, R-N.M., said Monday.

Domenici, who usually leads Senate deliberations about the department's budget, said during a news

*See* **DOE** *on* **PAGE A4**

# DOE Seeks Funds To Cover Nuke Costs

*from* **PAGE A1**

conference Monday he will hold hearings to find out what programs within the department were "shortchanged" in the department's budget request.

Critics disagree.

The budget is twice as much as necessary to simply maintain old weapons, said Greg Mello of the Los Alamos Study Group, a Santa Fe anti-nuclear group.

The U.S. government should be thinking about reducing the budget and getting rid of nuclear weapons, not increasing spending on them, Mello said in an interview Monday.

"This kind of budget assumes that nuclear weapons have continued legitimacy," Mello said.

Officials at Sandia National Laboratories are "encouraged" by preliminary analysis suggesting the request calls for a $53 million increase in the labs' budget next year, said spokesman Larry Perrine.

But Perrine said it's still not clear if job cuts will be needed this year at the nuclear-weapons research center because of budget problems.

Sandia officials said in December that as many as 500 jobs might have to be cut. Negotiations with DOE officials over the budget situation continue.

THE ASSOCIATED PRESS

**BUDGET REVIEW: Senate Budget Committee Chairman Pete Domenici, R-N.M., responds to President Clinton's fiscal year 2001 budget during a Capitol Hill news conference Monday.**

A Los Alamos spokesman declined comment.

Referring to a review of the nuclear-weapons program completed last fall, Richardson said money is needed to upgrade the nuclear-weapons factories that refurbish and maintain aging U.S. nuclear weapons.

Speaking at a Washington, D.C., news conference, Richardson also called for additional spending to retain skilled workers in the U.S. nuclear-weapons complex.

The preliminary budget calls for the department to spend $1.34 billion next year at Los Alamos National Laboratory, up 7 percent.

Sandia's Energy Department budget would increase by 5 percent to $1.06 billion.

Among significant items included for the labs:

- A 54 percent increase — $38 million — for manufacturing plutonium nuclear-weapon cores, work that's done primarily at Los Alamos.
- As much as $5 million for Sandia for design of a new building to house researchers developing a new generation of tiny components for use in nuclear weapons.
- A 20 percent increase — $80 million — in the department's high-performance computing program. That includes money for a new computer at Los Alamos four times faster than the current world speed record-holder.
- The end to a Los Alamos effort to use a powerful particle accelerator to make radioactive tritium for U.S. nuclear weapons.
- A 26 percent increase, to $116 million, for the nuclear-weapons transportation group based at the department's Albuquerque Operations Office.

# Taps Sound for LANL Facility

## Clinton Budget Sets 10-Year Deadline

2/19/00

BY IAN HOFFMAN
*Journal Staff Writer*

Tucked into the Clinton administration budget is an early epitaph for one of the world's largest nuclear chemistry labs: A final dose of renovation funds, plus money to design its replacement — a 21st century weapons plutonium lab.

Together, those moves are likely to raise a debate on the future of the nation's work with plutonium in an era of uncertainty over the size of the nation's nuclear arsenal and tepid interest in nuclear power.

For now, Clinton's budget sets a 10-year deadline on weapons research at Los Alamos National Laboratory's hulking Chemistry and Metallurgy Research building, a Cold War workhorse that at 550,000 square feet was the largest construction project in early 1950s New Mexico.

Since 1992, the CMR building has undergone a dribble of renovations originally aimed at keeping it running for a quarter century more. The $224 million project crashed in 1997, frustrated by safety mishaps, mismanagement and more contamination and outdated electrical systems than expected. A final nail in CMR's coffin came last year when geologists reported an earthquake fault under one of the building's wings.

"For a 50-year-old building, we think we're better off upgrading it for the next decade and (to) start getting out of it," said Earl Whiteman, assistant manager for technology and site programs at the U.S. Department of Energy's Albuquerque Operations Office.

The president's latest budget request seeks $13 million to finish a scaled-back version of the upgrades, with an end total of $128 million. The revised renovations got a boost recently when DOE executives removed CMR from their watch list of troubled, high-profile construction projects.

Eliminated in the renovations are a refurbished vault for weapons materials, plus new structures to shore the building up against earthquakes and to give stronger guaran-

*See* **TAPS** *on* **PAGE 3**

# Taps Sound for Nuke Chemistry Lab

*from* **PAGE 1**

tees against the release of plutonium in event of an accident.

Weapons executives say the slimmed-down project should make CMR safe enough to perform its core mission — analytical chemistry on plutonium and other weapons materials — until 2010.

By then, weapons executives in New Mexico want a new lab in place. The DOE is seeking an additional $5 million next year for a rough, first design of what they're calling a CMR replacement building.

The new lab is likely to cost hundreds of millions of dollars, Whiteman said, and would be built inside the top-security perimeter at Los Alamos' Technical Area 55, home to the nation's most comprehensive plant for work with bomb-quantities of plutonium. The plutonium facility, PF4, inherited the job of fashioning the watermelon-shaped plutonium triggers or "pits" for nuclear weapons from the defunct Rocky Flats site near Boulder, Colo.

It's unclear what the new lab at TA-55 will look like, however, or everything it will do. Much of CMR itself appears to be unused, but nuclear-disarmament advocates who scrutinize the building admit they don't really know much of the work performed there.

"This whole project to upgrade CMR has never been transparent because the things that go on inside are unknown and have not been accurately described to the public," said Greg Mello, head of the Los Alamos Study Group in Santa Fe. "We need to have full disclosure of what's going on there and a truly independent audit of the upgrades made available to the public."

Managers of the U.S. nuclear-weapons program in New Mexico say the new lab is needed primarily to perform chemical analyses as a process check on the manufacture and aging of weapons parts, chiefly plutonium pits.

Lab officials complain, however, that they need more room for all of the plutonium work they are assigned. PF4 workers, for example, crack open old pits to study aging effects. They research ways to purify aged plutonium and to mix plutonium with uranium to make experimental nuclear-reactor fuel. They also make plutonium-powered batteries for NASA space probes and undersea instruments. PF4 also is likely to play a role in research on using particle accelerators to "burn" nuclear waste.

DOE executives will consider moving some of those jobs to the new lab as part of its conceptual design, expected to take at least 18 months.

Of shifting work to the CMR replacement lab, the DOE's Whiteman said "maybe yes, maybe no."

"Certainly if you're going to all of the expense of constructing new plutonium floor space, adding more floor space is not all that more expensive."

Disarmament advocates suggest Los Alamos executives created their own space problems at PF4 by taking on too much plutonium work to compete with strictly weapons-related work.

"It's the ambitions of the nuclear-materials program at Los Alamos that is driving this new, bigger facility," said Mello. "We don't really need a new facility. We have the plutonium facility we need if we don't undertake a suite of new plutonium missions that crowd one another out."

Similar arguments persuaded Congress in 1990 to end Los Alamos' six-year campaign for a new, $350 million Special Nuclear Materials Laboratory. The push for the new lab is likely to trigger renewed debate inside the DOE and in Congress over what U.S. weapons scientists need. That, in turn, is premised on the size and types of weapons in the nation's arsenal, as well as demands for new research on nuclear power.

Whatever emerges in those debates, DOE officials know they must mount a rigorous campaign to prove the new lab's worth.

"Building a new nuclear facility is damn expensive," Whiteman said. "So in any scenario we have to have our act together. We have to convince people we know what we're doing and we can build it for whatever cost we're projecting. I think there's continuing support (in Congress) for a nuclear security mission at Los Alamos, but we're not crazy enough to think it's going to be easy."

# Weapons Plan Attacked

## Assembly Without Testing Revised

2/24/2000

BY IAN HOFFMAN
*Journal Staff Writer*

For the first time in more than a decade, the White House signaled in its budget the nation's intent eventually to manufacture wholly new first stages of thermonuclear weapons, without test-exploding them.

Fashioning untested new designs of such a major nuclear-weapons component would carry the nation afield of current U.S. nuclear policy, as well as cut against the advice of senior advisers on weapons science.

Arms-control advocates quickly denounced the move as a perilous flirtation with a renewed arms race. It was also wrong, according to the U.S. nuclear weapons executives.

U.S. Energy Department officials backpedaled furiously last week after a reporter drew attention to their own budget request, which set as a goal the building of an automated nuclear-weapons factory to make both existing and "new-design pits, without underground testing."

"It's in error," said Robin Staffin, senior adviser to Energy Secretary Bill Richardson.

DOE officials edited the phrase "new-design" out of their budget last week, substituting the words "replacement weapons pits."

That, too, left room for speculation. As of Wednesday night, they were working on a third version calling for production of "replacement pits for stockpiled (existing) warheads."

"There is no change in policy relative to the design or fabrication of new warheads and associated plutonium pits," DOE's acting weapons chief, Brig. Gen. Thomas Gioconda, said on Wednesday.

Pits are hollow, football-shaped plutonium shells about as big around as a grapefruit. Crushed by high explosives, it becomes a tiny A-bomb that is a match to fire up the power of suns, the second thermonuclear stage that gives H-bombs their punch.

Of the roughly 4,000 parts in a modern U.S. nuclear weapon, it is the radioactive plutonium pit and related parts that many weapons scientists regard as the most sensitive component. Its design and manufacture is as much an art as a feat of physics and engineering. Get the pit wrong, the entire weapon can fizzle. Traditionally, weapons executives have said they would never send a significantly redesigned pit into the U.S. nuclear arsenal untested by a full-blown detonation, which is prohibited by presidential order.

"If you cannot test, you cannot develop new warheads," former

*See* **WEAPONS** *on* **PAGE 3**

2/24/2000

# Weapons Plan Draws Fire

*from* **PAGE 1**

Assistant Defense Secretary Harold Smith said in 1996. "That is almost the 11th Commandment as given to Moses on Mount Sinai."

At Los Alamos, plutonium workers are making the first replicas of weapons pits since a 1989 FBI raid closed down the Rocky Flats site outside Golden, Colo. Lab officials declined to comment on the DOE's budget item, but lab spokesman Jim Danneskiold said, "The laboratory has no intention to introduce new-design pits into the stockpile or to introduce any new-design component without underground testing."

Lab director John C. Browne confirmed Wednesday: "Going to anything that would be considered a major new feature, I would be very uncomfortable certifying that without underground (nuclear) testing."

For DOE, correcting its budget misstatement took a delicate touch, because the Energy Department and its weapons labs since 1995 have been designing weapons that are new in several regards.

Changing nuclear weapons without testing seeds doubt that they will operate as designed, and critics of the DOE's weapons program argue this doubt could eventually lead the United States back to nuclear testing.

As part of the Submarine Warhead Protection Program, the U.S. Navy asked Sandia labs to change the fuzing of the W76 submarine-launched warhead so it will detonate near the ground, as opposed to its original airburst design. The change gives the W76 a new targeting capability, for destroying hardened military structures such as missile silos.

At the same time, Los Alamos and Livermore national labs are working on replacements for the Navy's W88 warhead, launched by submarine on the Trident D5 missile.

Livermore's design would recycle the pit from a defunct but well-tested warhead. Los Alamos' W88 replacement would use a new and untested pit. It adds new safety features such as a fire-resistant shell around the plutonium and "insensitive" high explosive that resists detonation in a fire. Both features mark significant design changes that typically require full nuclear testing.

*"Design skill exercises fall far short of a weapon development program. There are no requirements for new warheads, and there are no requirements to manufacture new design warheads — period — that has been, and is, our policy and program."*

BRIG. GEN. THOMAS GIOCONDA, DOE'S ACTING WEAPONS CHIEF

DOE executives say the new designs are intended simply to hone the skills of weapons lab physicists and keep them in practice. The Energy Department is actually under orders since 1994 not to make new warheads.

"Design skill exercises fall far short of a weapon development program," DOE's Gioconda said. "There are no requirements for new warheads, and there are no requirements to manufacture new design warheads — period — that has been, and is, our policy and program."

Yet the DOE's published policy in 1997 stated: "Nuclear weapons in the enduring stockpile will eventually be replaced. (New system development may be needed even to maintain today's military characteristics.) This work is anticipated to begin around 2010."

Changing nuclear weapons without testing can introduce doubt that they will operate as designed, and critics of the DOE's weapons program argue this doubt could eventually lead the United States back to nuclear testing.

"Once you change them, you're departing from the nuclear testing program of the past and introducing new factors into the stockpile," said Greg Mello, head of the Los Alamos Study Group, a disarmament organization in Santa Fe. "You're decreasing confidence in the stockpile, and you're addicting to ever increasing funding" of the nuclear-weapons program.

While the Navy and the Air Force have not requested the actual manufacture of new nuclear weapons, Energy Department officials say they cannot rule out the possibility of having to make new weapons in the future.

"We didn't say we're never going to do that," said a senior DOE weapons executive. "I can't tell what's going to happen 10 years from now. And if there were (a need to make a new weapon), we would want to be able to respond to it in a timely manner ... It is a hypothetical situation that could become a reality down the road."

Arms-control advocates say they suspect the DOE's original budget statement flirted too close to honesty and are likely to alarm other nations.

"These hairsplitters in the Pentagon and the DOE think they've made a fine point," said Chris Paine, a senior weapons analyst for the Natural Resources Defense Council in Washington, D.C. "But for the Chinese and the Russians, who are planning 10 years out, when you read something like that you don't find it very reassuring."

Feb. 21, 2000

# Clinton's budget gives LANL a raise

▶ *Much of the money is earmarked for weapons research, including stockpile stewardship*

By KRISTEN DAVENPORT
The New Mexican

Los Alamos National Laboratory will receive $94 million more than it received last year, or a 6 percent budget increase, under President Bill Clinton's proposed $1.8 trillion federal budget for next year.

Of that amount, nearly $80 million of the increase is earmarked for weapons research.

Sen. Pete Domenici applauded parts of the budget, saying the Department of Energy funding for New Mexico's nuclear weapons lab facilities shows the government will "continue to place resources in stockpile stewardship."

**On the Web**

To view President Clinton's entire budget proposal, go to *The New Mexican*'s Web site at **www.sfnewmexican.com** and click on **President Clinton's Budget** on the right-hand side of the page.

However, Domenici also said the proposed budget does not give enough money to the labs for maintaining facilities and building new ones. The state of buildings, Domenici said, is in some cases deplorable.

Los Alamos lab began work last fall on a new $62 million computer complex to house weapons research, which is expected to be finished by the end of 2001. The Strategic Computing Center is a 291,000-square-foot building that will be used by 300 weapons designers and other scientists.

The Department of Energy seeks a total of $1.335 billion for Los Alamos National Laboratory in fiscal 2001 and $1.071 billion at Sandia National Laboratories. That's an increase of $94 million at Los Alamos over fiscal 2000 and $53 million more for Sandia.

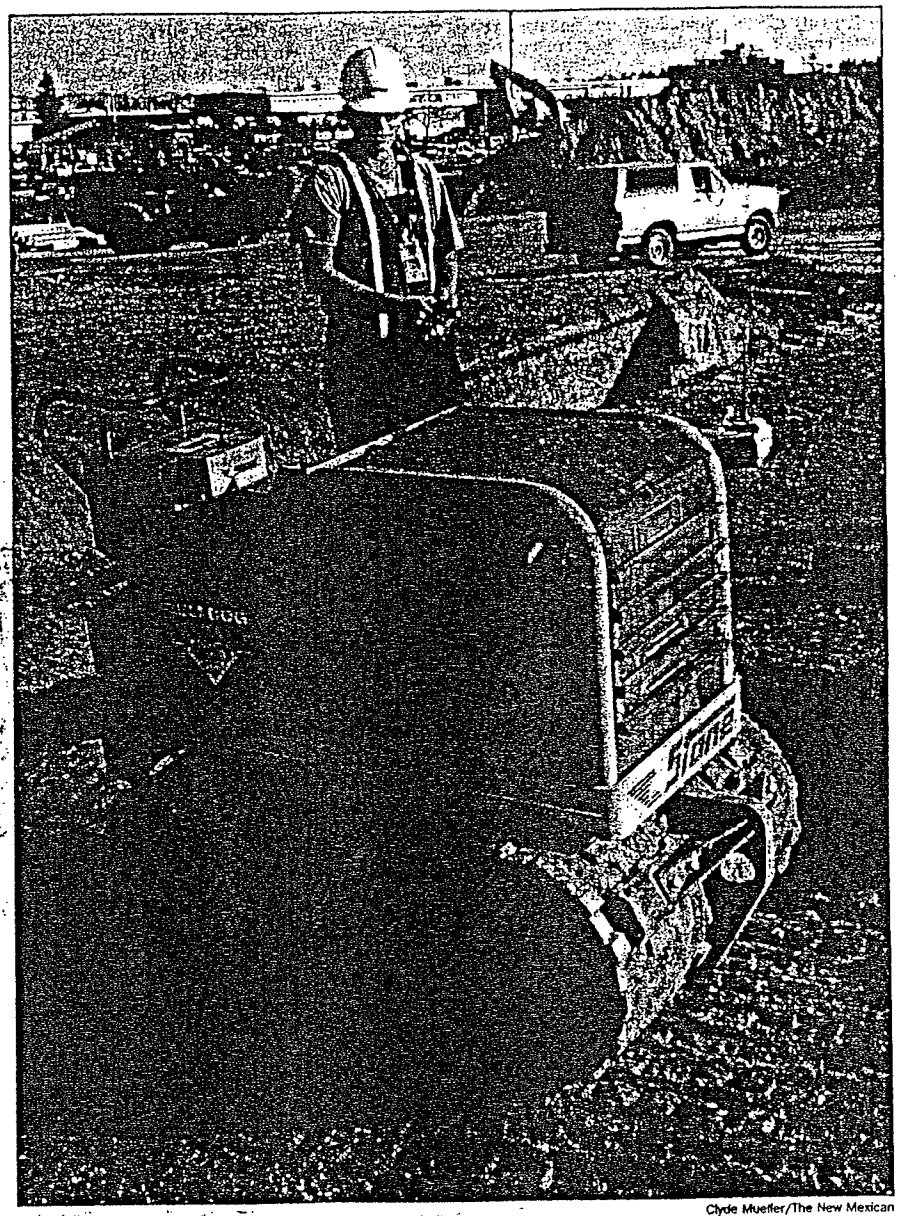
The budget gives a total of $2.926 billion within the Department of Energy for New Mexico — including both labs, the Waste Isolation Pilot Plant and DOE administrative offices.

But Domenici said Clinton's budget proposal fails to deal with a $20 million-plus shortfall at Sandia National Laboratories that could cost hundreds of jobs.

"If you look at our labs and our programs, they go up some," Domenici said. "But the problem is there are very significant programs that DOE studies show they have to start using money for, and they didn't put money into them."

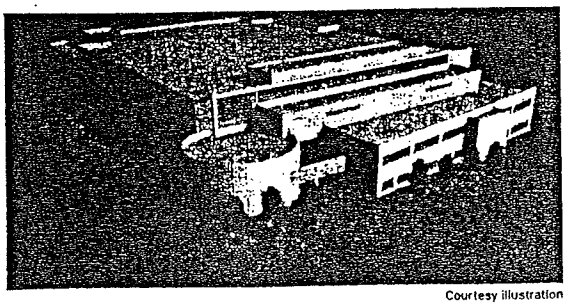
The budget from the Clinton administration also proposes $95.6 million for environmental cleanup and waste management

Please see LABS, Page A-8



Clyde Mueller/The New Mexican

**Joseph Vigil operates a remote-controlled tamper to compress the ground at the Los Alamos National Laboratory construction site of the Strategic Computer Center.**



Courtesy illustration

**A drawing of the Los Alamos National Laboratory Strategic Computer Center, now under construction.**

# LABS

**Continued from Page A-1**

at Los Alamos National Laboratory — down $1.2 million from last year.

Lab critic Greg Mello, who runs the Los Alamos Study Group, said the federal government is simply wasting money by pumping so much into weapons programs and stockpile stewardship.

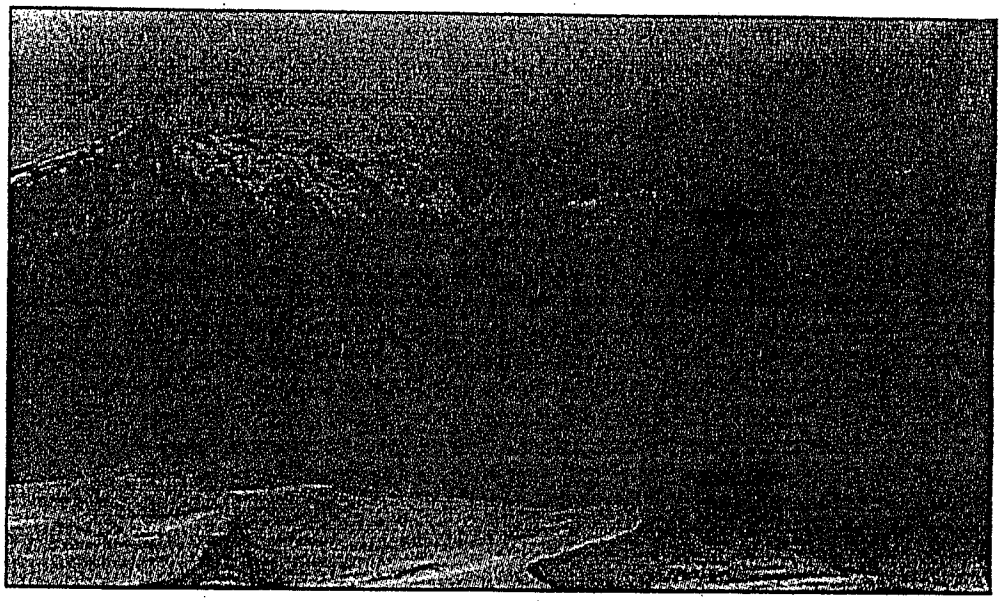
The DOE budget would give $4.7 billion to the nation's stockpile stewardship work — in New Mexico and elsewhere. Stockpile stewardship is an effort to simulate nuclear explosions on computers, thereby eliminating the need for actual weapons testing. Stockpile stewardship activities received almost $4.5 billion last year.

"DOE's stockpile stewardship budget is about twice what it needs to be in order to accomplish the objective," Mello said. "Every year, certain members of the House of Representatives understand how wasteful it is, and Senator Domenici and his staff have to twist the arms to try to keep the budget up.

"What happened to the good old days when the lab was half the size it is today?" Mello asked. "Why is making weapons of mass destruction a good thing?"

Clinton's proposed budget released Monday is only the first step in the federal budget process. Both the Senate and House finance committees will review the budget before a final appropriations bill is sent to the full Congress.

*The Associated Press contributed to this report.*



**Great Sand Dunes National Monument near Blanca, Colo., shown in this Jan. 21 file photo, would receive part of the $1.4 billion set aside in the president's budget for open space.**

The Associated Press

# U.S. Nuclear Stockpile Plans Draw Scrutiny

Ours was the "pull quote" in this article.

By Walter Pincus
Washington Post Staff Writer
Monday , April 24, 2000 ; A02

While U.S. and Russian negotiators work on a new treaty to sharply reduce strategic nuclear weapons, the Navy is upgrading a 20-year-old submarine-launched warhead to enable it to destroy any remaining super-hardened Russian missile silos, according to government officials and private analysts.

More than 2,000 of the aging W-76 warheads will soon be going through the Energy Department's service-life extension program to be put back in submarines beginning in 2005.

Each warhead now has a destructive power more than three times greater than that of the bomb dropped on Hiroshima in 1945. After they are refurbished with new arming, fusing and firing systems, the W-76 warheads will have a greater destructive effect on their buried, reinforced targets than when they first went to sea in 1977.

As the number of strategic land- and sub-based intercontinental ballistic missiles is reduced, "the U.S. must maintain the number of hard-target killers we have on alert," a senior Pentagon officer with responsibility for nuclear weapons said recently. Upgrading the W-76 warheads is in line with that need, he said.

At a conference on the 1968 Nuclear Non-Proliferation Treaty in New York this week, officials expect delegates from the signatory countries to raise questions about the upgrading of the U.S. stockpile. The delegates will review the records of Russia and the United States in moving toward elimination of nuclear weapons, as envisioned by the 1968 treaty.

Although the United States and Russia have both ratified START II (strategic arms reduction treaty) and are working on START III, both nations are expected to draw criticism from other signatory countries for not disarming fast enough and for keeping stockpiles of thousands of warheads.

The Russian decision to store rather than destroy 20,000 tactical nuclear weapons it has withdrawn from deployment will be a subject of concern at the New York conference. Nations in Asia and Europe, where such weapons could be used, are particularly critical of Russia's refusal to destroy the battlefield nuclear weapons. Then-President Mikhail Gorbachev took the weapons out of deployment in Eastern Europe in response to the unilateral withdrawal of U.S. tactical weapons from Europe and Asia.

Delegates to the conference are also expected to complain about U.S. plans to refurbish and upgrade its 6,000 deployed strategic warheads, such as the W-76, and Washington's intention to maintain in an "inactive reserve" weapons withdrawn from deployment when START II's limit of 3,500 warheads goes into effect.

Questions will also be raised about Washington's "war reserve" of 4,000 plutonium triggers, taken from dismantled weapons, which could be converted into nuclear warheads within a year. Triggers from U.S. tactical weapons withdrawn from Europe in 1991 are in that reserve.

Secretary of State Madeleine K. Albright is to speak to the New York conference and release a report defending the U.S. approach to disarmament. State Department spokesman James P. Rubin told reporters Thursday that "the United States has led the way amongst the nuclear powers in trying to reverse the nuclear arms race."

The START III negotiations, which got underway in Geneva last week, are based on an agreement reached in Helsinki in 1997 between President Clinton and Boris Yeltsin, then Russian president. The two leaders not only agreed to reduce deployed warheads to between 2,000 and 2,500, but also to take steps to destroy "strategic nuclear warheads."

Russia plans to make an issue of U.S. stockpile practices based on the Helsinki agreement, according to government sources. The Russians believe one flaw in START II was that it allowed the United States to store excess warheads rather than destroy them, according to Alexander Pikayev, an arms expert at the Carnegie Endowment for International Peace.

U.S. stockpile practices have drawn little attention on Capitol Hill or from the public at large.

"Despite its potential adverse effects on . . . arms control and disarmament efforts, there has been no public or congressional debate over upgrading warheads or the gratuitous modification and novel design of nuclear explosives," said Greg Mello, director of the Los Alamos Study Group, in a recent article about the W-76 upgrade in the Bulletin of the Atomic Scientists.

Congressional testimony on the fiscal 2001 budget infrequently touched on the nation's strategic nuclear weapons program, which costs roughly $30 billion a year, according to the Congressional Budget Office.

Buried in testimony of Brig. Gen. Thomas F. Gioconda, the acting director of the Energy Department's National Nuclear Security Administration, is the one mention of the W-76--in a list of three deployed warheads that will be refurbished. The main thrust of Gioconda's testimony was to assure members of Congress that U.S. weapons would still work, not that they would be more effective.

05/09/00

JOSH STEPHENSON/JOURNAL

**HEAT OF BATTLE:** Members of the Gila Hotshots isolate a hot spot on N.M. 4 in the Cerro Grande Fire near Los Alamos early Monday morning. Prior to this, the crew lit a back burn on N.M. 501 near areas of Los Alamos National Laboratory that contained explosive materials.

# Waste Areas Threatened

By Ian Hoffman
*Journal Staff Writer*

Even if a wildfire skirts the Atomic City, the blaze is tending toward canyons rich in trees and the contaminants of nuclear-weapons research.

Scientists fear a fire there will set the stage for heavy summer flooding that ultimately could flush radioactive and hazardous toxins into the Rio Grande — or bury them in tons of mud.

The prospect of post-fire flush exposes a vulnerability of Los Alamos' practice of pumping radioactive waste water into canyons and, in earlier years, of burying toxins close to canyon walls that can erode.

So far, the U.S. Department of Energy plans no cleanup of the canyons that drain its Los Alamos National Laboratory, in part because only low levels of contaminants have be detected outside the lab boundary.

"The question is: Are they going to let it stay contaminated and let this forest fire or the next forest fire washes it out for them?" said Greg Mello, head of the Los Alamos Study Group, a nuclear disarmament and environmental organiza-

*See* **WASTE** *on* **PAGE 4**

**ON THE MOVE:** Riley Sievers, 9, left, and his brothe Jesse Sievers, 17, load their family truck with belonging from their Los Alamos home.

05/09/00 ASA

# Waste Worries LANL Experts

*from* **PAGE 1**

tion in Santa Fe.

"In effect, because the lab has no firm plans to clean up these canyons, they are leaving them in the hands of God, who is flushing them down to Cochiti Reservoir, which is becoming the dump of last resort," he said.

The fire, dubbed Cerro Grande, swept Sunday across one canyon where state scientists have detected toxic metals in rainstorm runoff. If firefighters cannot stop the blaze from moving northward, scientists fear Pajarito and Los Alamos canyons could be primed for a succession of intense fire and flooding.

"It's safe to say we will be watchful for potential increases in runoff," said Mathew Johansen, a U.S. Department of Energy environmental scientist. "We don't know yet if that will affect contaminant transport in our canyons."

A lab computer model suggests soils in the two canyons, if they are burned heavily, could fuse and not absorb storm water or erode at rates at least nine times greater than normal. A U.S. Forest Service scientist suggests the erosion could run as high as 50 times normal, to 100 tons an acre. One scientist plans to press the federal government to shore up the blackened mountainsides once the fire is gone.

"As soon as we take a deep breath, that's one of my first e-mails," said Randy Balice, a LANL forest ecologist and statistician. "My recommendations will be that we start stabilizing those areas."

Los Alamos executives said Monday they are confident the Cerro Grande Fire won't ignite explosives or release chemicals and radioactive materials. Storage and research facilities tend to be hardened against fires, and, since the 1996 Dome Fire, lab contractors have aggressively cut back the forests around them.

Lab workers dropped even more trees Monday around the Weapons Engineering Tritium Facility, a masonry building where lab scientists handle the highly radioactive form of hydrogen that fuels thermonuclear bombs. Lab officials said most tritium there is stored in tanks designed to withstand flames.

The same branch of the laboratory also fashions and stores explosives at Technical Area 16, across N.M. 501 from the Cerro Grande Fire. The fire tossed at least one ember into the lab site Sunday evening, but it was extinguished. The lab's explosives are primarily stored in concrete bunkers covered in dirt; the 1977 La Mesa Fire burned over several of these, and lab officials say they can safely store explosives inside for a few hours of intense heat.

Lab guards and employees on Monday patrolled other areas where hazardous materials are stored to watch for fire, lab director John C. Browne said. Most are inside Technical Area 3, the lab's focal point, where there are few trees to catch fire.

Yet lab officials have taken few steps to guard against the possibility of massive erosion and flooding after a wildfire. The lands scorched by the Cerro Grande blaze so far contain no known spill sites or waste disposal areas. But sediments a few miles down Los Alamos Canyon are contaminated by plutonium, other radioactive materials and toxic metals such as mercury. If Los Alamos Canyon is hit by a high-intensity burn, as the Cerro Grande Fire produced farther south on Sunday, the magnitude of stormwater runoff during northern New Mexico's "monsoon" season will jump significantly, scientists predict. It's unclear whether that runoff would pick up the pollutants downstream and whether it will bury them in mud or carry them in diluted form to the Rio Grande.

"A lot of people have said that if Los Alamos canyon had a big flood, it could be a big problem, it could go all the way to the Rio Grande," said LANL's Balice. "I'm hoping it's just mud and sediments. Who knows? We're going to find out."

# **LAB RISKS:** Some believe protective measures won't be enough

**Continued from Page A-1**

Roark said the lab's plutonium research facility is in a different area, some four miles from where the fire was burning Monday. The plutonium is in "a very robust facility" that "wouldn't succumb to fire," Roark said.

"There's no risk at this time," Roark said.

But not everyone is taking the lab at its word.

"The amount of residual contamination from over a half century of operations at the lab is essentially unknown," said Jay Coghlan of Nuclear Watch of New Mexico. "There is not a complete inventory of it, nor has it ever been fully characterized."

Coghlan said a forest fire can be a means of delivering "broadly dispersed uranium from lab operations" back into the atmosphere, although the lab said there's no evidence that's occurring.

Mello said it's difficult to gauge any potential safety threat from the fire's proximity to the lab. "Number one, you can't really trust the lab, and secondly, we don't know what's going on with the fire," Mello said.

If the fire were to burn "anywhere near the former testing areas, then there'll definitely be uranium emissions into the air," Mello said. He said the lab used about 250,000 pounds of depleted uranium in its outdoor explosions since the 1940s.

Mello said he's concerned about some spot fires that broke out on lab land, even though the blazes were quickly doused. That's because those spot fires were in an area where some of the lab's outdoor uranium explosions took place, Mello said. Some of that uranium remains in the soil and some scattered elsewhere, including ending up as shrapnel in trees, he said.

Still, as long as the fire stays where it is, Mello said, "I don't think personally that there's a great deal to worry about."

Mello said the lab is "constantly propagandizing" about how safety-conscious it is, but "a lot of it is just Dilbert-speak."

"Their idea is to make the problem go away by putting nice words on it," Mello said. "It's like pulling teeth to get credible factual information about contaminated areas."

The lab has "a large number" of sites contaminated with radioactive and toxic materials that they haven't cleaned up, Mello said.

*Jay Coghlan of Nuclear Watch of New Mexico said a forest fire can be a means of delivering "broadly dispersed uranium from lab operations" back into the atmosphere.*

"If the fire burns through a contaminated area, then yes, I would be concerned," Mello said.

Paul Robinson, research director at the Southwest Information and Research Center in Albuquerque, said the fire could pose a public-safety danger even if it's off-site in an area where no "active experimental work" occurred. Hazardous or radioactive contaminants could have been carried in that direction over time, or could have been released or discharged in incidents that weren't reported or documented, Robinson said.

Such releases or emissions could then be redistributed by the fire, Robinson said — but the lab said nothing of the sort was occurring. Roark said the air is monitored for "radioactive constituents," and there's no evidence of "any radioactive emissions that relate to the fire."

"Currently the fire is contained on Forest Service land," Roark said. "This area has never been part of the laboratory. No lab work was done in that spot."

The lab complies with numerous state, federal and its own in-house environmental safety and health regulations, "and if that's not enough I don't know what is," Roark said.

In addition, Roark said an inter-agency wildfire management team has been "working for the past two years on these specific issues." The team includes representatives from the lab, the Forest Service, the state Environment Department and the Los Alamos County Fire Department.

"These people coordinate activities and try and manage the fuel load in the forest," Roark said. "They anticipate scenarios just like this one and come up with procedures to deal with them."

But even if the fire stays put, there are environmental risks, Mello said.

"The runoff after a fire is greater, and the bottoms of the canyons contain contaminated sediments," Mello said. "The fire doesn't have to burn on the lab property to have the flooding that is likely to occur after a major fire move contaminated sediment down the canyon and into the Rio Grande."

Mello said he would like to see the lab put cleanup money Congress authorized to good use, "so we don't have to worry about floods, about fires, and about dust on windy days blowing from the surface of old dump sites."

In Washington, federal officials kept a minute-by-minute watch on the situation as the fire neared the nuclear laboratory.

Bill Wicker, a U.S. Energy Department spokesman, said local officials were in charge of the firefighting mission and made all the decisions throughout the day, including to evacuate the laboratory and other local entities.

"All the shots are being called out of New Mexico," Wicker said. "They're the ones that have expertise."

Energy Department officials set up a secure open phone line to receive updates of the firefighting effort. In the press office, Wicker said he was picking up new reports every 10 or 15 minutes.

He said two or three senior advisers to Energy Secretary Bill Richardson were spending most of their time watching the situation, in addition to support staff and the department's emergency operations squad.

Sarah Echols, a spokeswoman for U.S. Sen. Pete Domenici, said the Republican senator had been in regular contact with the emergency operations center at Los Alamos and spoke Monday with lab director Browne.

"He's closely monitoring the situation," Echols said. She said Domenici called the lab and the Forest Service to ensure they had the resources they needed.

*States News Service reporter Anand Giridharadas contributed to this report.*

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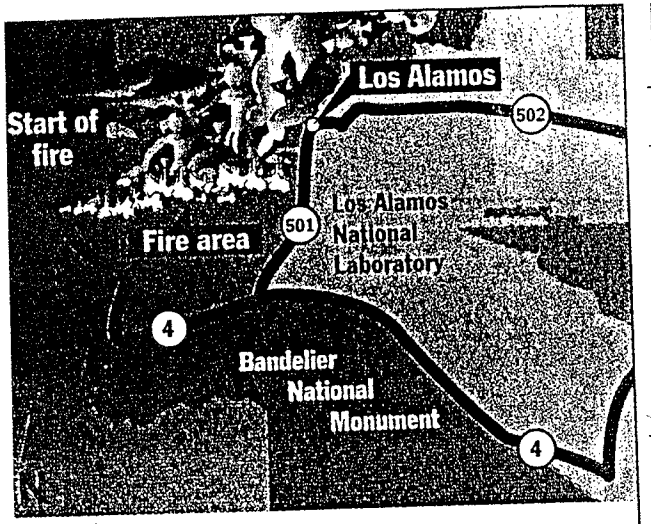


## Cerro Grande fire

The fire near Los Alamos had burned more than 3,000 acres by 9 p.m. Monday. However, fire crews had succeeded in keeping it from crossing N.M. 501 and entering Los Alamos National Laboratory land.

Robert Martinez/The New Mexican

NM 05/09/00

# LANL officials deny fire's proximity poses risk

By SHONDA NOVAK
The New Mexican

Despite official assurances that a forest fire near Los Alamos National Laboratory poses no public threat, three watchdog groups aren't so sure.

With a less than perfect safety record, "it's not OK for the fox to be guarding the chicken coop on this," said Greg Mello, director of the Los Alamos Study Group, a lab watchdog group in Santa Fe.

A statement from the Cerro Grande forest fire's information center said Monday that there were no fires on lab land, and "at no time have nuclear materials been at risk." Lab Director John Browne said the lab's "first concern is for the safety of the public and our employees."

Most of the lab's 10,000 to 12,000 employees and contract workers were told to stay home. Only 500 lab staffers reported to work for emergency purposes.


**Los Alamos Police Officer J.R. Merrell, left, and Robert Rutherford, a Los Alamos Mobile Emergency Services Association volunteer, stand guard Monday on Sandia Drive in Los Alamos. The road leads to a western part of the city that has been evacuated.**

"We're confident there won't be a worst-case scenario," said Kevin Roark, a lab spokesman.

Even if the Cerro Grande fire were to encroach on lab property, "we're confident our protective bunkers will maintain the security of any high explosives or other materials," Roark said.

On Monday, a "very small portion" of the fire approached the lab's western boundary along N.M. 501, Roark said. That area of the lab contains high explosives, but "all the significant quantities of high explosives are protected in concrete bunkers with an earthen cover," Roark said.

The explosives are designed to be detonated only under certain conditions, and fire is not one of them, Roark said. "They'll burn but not explode," Roark said. Typically, the explosives are set off only when an electrical charge is sent to an implanted detonator.

Please see **LAB,** Page A-4

Publication: Jnl Legacy 1995 to July 2005; Date: May 11, 2000; Section: Final; Page: 4

# Edition--Final Date--05/11/2000 Page--A1

## Lab Says Nuclear Materials Protected

**John J. Lumpkin and Ian Hoffman Journal Staff Writers**

Fortified Buildings Can Resist Flames

Safety Concerns

The blaze gutting the Atomic City on Wednesday night is expected to leave untold damage and human anguish. But the prospects of chemical explosions or some radioactive nightmare at the town's nuclear-weapons lab are quite low, state and lab officials said.

Los Alamos National Laboratory officials repeated earlier assurances Wednesday that explosive and nuclear material kept there is safe, mostly entombed in concrete buildings.

"The risk to the lab pales in significance compared to what's happening to the town right now," said Lee McAtee, a health physicist and deputy director of the lab's Environment, Safety and Health Division. "The town site is going through devastation. There's a real human tragedy here."

As of midnight, the Cerro Grande Fire had swept onto LANL property, but officials were not sure of the extent of damage.

One building on Technical Area 16 caught fire earlier Wednesday, lab officials said, but crews quickly knocked out that fire. Explosives are stored in Technical Area 16 but several miles from the building.

Several other small fires broke out earlier in TA-16, across N.M. 501 from the main body of the fire. Those, too, were quickly put out.

By far most of the lab's plutonium and other "special nuclear materials" and hazardous chemicals are stored in fire-resistant buildings, often walled in concrete. The most sensitive of these, the plutonium facility, was designed to withstand the crash of a Boeing 747 and contain most of the radioactive materials inside.

"We're looking at concrete facilities, and the fire's not anywhere near them," McAtee said.

Some environmentalists and scientists remain concerned that the fire could release small concentrations of radioactive materials if it burns over Bayou Canyon, site of the Ra-La experiments in the lab's early years. The canyon underwent two cleanups but some of its plants and trees still test mildly "hot" for strontium-90.

Yet, said McAtee: "It would create a risk that's so minimal you'd never ever be able to see it."

Greg Mello, a disarmament advocate and longtime lab watchdog, agreed: "The radioactivity in vegetation in Bayou Canyon is unfortunate, but I don't think it would be a major health problem to

people far away. Maybe if I were a firefighter, I might be nervous in some areas, perhaps."

A potentially greater worry is flash flooding after the fire in Los Alamos, Acid and DP Canyons all places where the lab disgorged radioactive liquid waste during the Manhattan Project and early years of the Cold War. The radioactive particles in the effluent tend to bind tightly to canyon-bottom sediments, which could be buried in mud or flushed toward the Rio Grande.

Activists pressed the U.S. Department of Energy to study the ecological and human health threats of a wildfire a few years ago, but no thorough study was done.

"We're dealing with an unknown," said another lab watchdog, Jay Coghlan. "They completely ignored the question."

Los Alamos Canyon also contains the decommissioned Omega West Reactor, but its concrete walls are at least 3 feet thick and all its fuel rods were removed years ago.

State environmental officials were keeping an eye on LANL's storage area for chemicals and hazardous wastes, but said they were more immediately worried about hazardous releases from burning houses.

"There's probably going to be toxic releases" whether the fire burns through the town or the lab, said Greg Lewis, head of water and waste management for the New Mexico Environment Department. "Your average residential structure has a lot of chemicals in it."

Rep. Heather Wilson, R-N.M., a member of the House Permanent Select Committee on Intelligence, sought and received confirmation that "federal assets normally used for national security would be used to monitor Los Alamos." That term generally means satellites and other intelligence-gathering resources.

Most of LANL's radioactive materials are kept in safes or underground bunkers deep in the heart of the laboratory in areas cleared of trees. Most of the lab's radioactive wastes are stored at Technical Area 54, at least four miles southeast of the fire, which was headed northward.

Conventional high explosives are kept in similar, hardened bunkers. There are no plans to move either the radioactive material or the conventional explosives from those bunkers, said Kevin Roark, a lab spokesman.

"Their primary design is to keep accidental explosions in," he said. "That design doubles really well for keeping fire out."

In fact, a wildfire would be allowed to roll right over the bunkers, as happened in the 1977 La Mesa Fire.

"The public should be reassured that any of the hazardous materials housed at the lab are going to maintain their security," he said.

Nuclear weapons data and other vital national security information are similarly stored in fireproof, secure areas.

Less-secure scientific experiments and data are not similarly protected, however, Roark said.

"I'm sure there are quite a number of leading researchers who are very worried about their data," he said. "Many of the experiments are ongoing. But those concerns really pale in comparison to the other stuff that's happening the loss of homes, the displacement of families."

He said concerns about low levels of explosives residue and other contaminants in the canyons

near Los Alamos, a legacy of the Manhattan Project, were secondary.

"It's too early to know the effect of a forest fire on that," he said. "I don't think anybody's overly concerned at this time."

The lab has been closed since Monday. A force of 500 security and emergency personnel has remained on site and will stay there unless immediately threatened by fire.

Publication: Jnl Legacy 1995 to July 2005; Date: May 11, 2000; Section: Journal North; Page: 113 Ac

# Edition--Journal North Date--05/11/2000 Page-- 4

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**John J. Lumpkin and Ian Hoffman Journal Staff Writers**

Buildings Made To Resist Flames

The blaze gutting the Atomic City on Wednesday night is expected to leave untold damages and human anguish. But the prospects of chemical explosions or some radioactive nightmare at the town's nuclear-weapons lab are quite low, state and lab officials said.

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"The risk to the lab pales in significance compared to what's happening to the town right now," said Lee McAtee, a health physicist and deputy director of the lab's Environment, Safety and Health Division. "The town site is going through devastation. There's a real human tragedy here."

As of 10 p.m., the Cerro Grande Fire was staying in forest and residential areas west and northwest of LANL.

One building on Technical Area 16 briefly caught fire Wednesday, lab officials said, but crews quickly knocked out that fire. Explosives are stored in Technical Area 16, but several miles from the building.

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A bulletin on the lab's Web site, www.lanl.gov, pictured an animated flame next to the words "Fire Danger Extreme." An announcement read: "Do not try to come to the Laboratory."

**Thursday May 11 6:55 PM ET**

# Lab Hazardous Materials Said Safe

*By MICHELLE KOIDIN, Associated Press Writer*

ALBUQUERQUE, N.M. (AP) - With a massive wildfire out of control in Los Alamos, federal officials sought to assure the public Thursday that the storied nuclear laboratory at the heart of the town is safe, with explosives and plutonium stored in fireproof bunkers and vaults.

``This is not an issue about national security or release of radiation. That is not occurring," Sen. Jeff Bingaman said. ``The lab is going to survive this in good shape."

About 2,000 buildings dot mesas and canyons on the 43-square-mile property. The location, 35 miles northwest of Santa Fe, was chosen by physicist J. Robert Oppenheimer because of its remoteness and isolation.



This week, for the first time since it was established in 1943, the lab was shut down by fire. Only emergency personnel continued to work. The lab has about 7,000 employees.

All 11,000 people in the town of Los Alamos, an outgrowth of the lab, and another 7,000 in suburban White Rock fled as wildfires swept through the streets.

Lab director John Browne said the blazes spread through an area of the lab property where high explosives are stored in concrete bunkers. And flames also jumped to within 300 yards of the plutonium facility, said Kay Roybal, a spokeswoman for the lab.

She added that firefighters kept the wildfires at bay by burning nearby grasses to eliminate possible fuels, and that by afternoon the flames had shifted.

The only damage on lab property was a singed wall on a research building.

John Rhoades, director of the lab's Bradbury Science Museum, said the facilities are safer today than years ago; after a 1996 fire that charred 16,683 acres and reached the perimeter of the lab's property, timber was removed from around structures and firebreaks were constructed.

He feels confident there is no way fire could reach into the bunkers or vaults to ignite explosives or radioactive materials.

``They're designed to withstand for something like four to six hours a fire burning right on top of the building," Rhoades said. ``It's like trying to light a steel ballbearing on fire."

Greg Mello, executive director of the anti-nuclear Los Alamos Study Group, said he does not fear a

disaster but claimed firefighters could inhale smoke tainted with chemicals. He said the fire has swept over an area where uranium has been blown up in the past and landed in the soil and trees.

``We do not know whether toxic materials have been burned," Mello said. ``It's possible, it's even likely to some extent, but it's not something to be panicked about."

Los Alamos is one of three government nuclear weapons labs under the Energy Department; it is managed by the University of California. More than half of its .26 billion annual budget goes toward nuclear weapons programs, with the rest dedicated to research in environmental cleanup, alternative energy sources and biomedical sciences.

Historically, Los Alamos has been used to design, develop and test America's nuclear warheads. The key defense mission now is to maintain the nuclear weapons stockpile.

Los Alamos also has been the focus of a security and espionage controversy stemming from the apparent loss of nuclear warhead secrets to China in the 1980s. A lab scientist was fired last year after being suspected of having given China nuclear secrets. He has pleaded innocent to federal charges.

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Questions or Comments

Paper: Times Union, The (Albany, NY)
Title: 60 MPH GUSTS WHIP FIRESTORM
Author: BOB DROGIN Los Angeles Times
Date: May 12, 2000
Section: MAIN
Page: A1

LOS ALAMOS NATIONAL LABORATORY, N.M. -- Blinding yellow smoke suddenly swallowed Pajarito Road here Thursday afternoon as a fierce fire burned several hundred yards from ``Technical Area 55,'' the bland name for America's most heavily guarded -- and arguably most dangerous -- warehouse.

``There it is,'' Bill Richardson, the secretary of Energy, said with audible relief when the acrid smoke finally cleared. He peered out the van at the concrete complex that is the United States' chief storehouse of plutonium used in nuclear weapons.

The highly radioactive material and other warhead components are safely entombed in steel vaults inside a structure designed to withstand fires, earthquakes and even a ``direct crash from a 747,'' said lab director John Browne, as he led Richardson on a tour of the worst natural disaster ever to hit America's oldest and largest nuclear weapons facility.

But if all nuclear materials at the lab were secure, and Richardson and other officials insisted they were, the wind-driven fire that forced the evacuation of 20,000 people from three nearby towns over the last two days continued to rage out of control. Miraculously, no one has been killed or seriously injured.

Officials said the fire was growing in every direction except west as winds gusting to 60 miles per hour whipped the orange flames into a devil's dance of destruction. Continued high winds and low humidity are predicted for Friday.

``This fire is doing what it wants to do,'' Los Alamos County fire chief Doug MacDonald told Richardson inside an underground bunker used as the lab's emergency command post. ``It doesn't have a place where it can't go.''

Indeed, he said, firefighters had closed the road past the plutonium facility moments after Richardson visited. Earlier, the fire had swept across 788 acres in the lab's southern section, burning the grassy tops off buried, foot-thick concrete bunkers used to store tons of high explosives. None exploded.

The fire also approached other sensitive buildings at the lab, including facilities used for critical experiments with nuclear materials, but Browne said that none were damaged.

Of immediate concern was a waste storage facility in the fire's path. Browne said that only a thin roof protects 55-gallon drums filled with low-level nuclear waste like contaminated gloves. Fire fighters sprayed foam along the road to keep the blaze away.

``Those structures are not fire proof," Browne said. ``They just keep the stuff out of the weather."

Greg Mello, a longtime lab critic who heads the **Los Alamos Study Group**, said that he most fears pollution from vast quantities of hazardous and toxic chemicals stored at the lab. No such leakage has been detected and officials said that continued monitoring has found no evidence of any radiation leaks.

The worst damage so far has been in the evacuated town of Los Alamos, where hundreds of bleary-eyed fire fighters and emergency crews rushed down eerily empty streets Thursday to battle new blazes in houses and cars across the once-lovely mountainside town.

On Ridgeway Street, George Chavez, New Mexico's fire marshal, watched a dozen firefighters spray hoses and hack with axes at the smoldering ruins of a half dozen stately homes that had burned to the ground overnight. Chimneys and stone walls still stood but otherwise smoking, twisted rubble was all that remained.

Chavez said the fire had gutted 130 homes in Los Alamos, which adjoins the lab, but that hundreds more were damaged.

Officials warned that the fire -- which began as a deliberately set controlled burn last week and now has laid waste to more than 18,000 acres of northern New Mexico's sere high-desert country -- was fast approaching White Rock, a Los Alamos suburb that was evacuated before dawn Thursday.

Heavy smoke grounded airborne ``slurry bombers," which drop chemical retardant on forest fires, for a second day. MacDonald said that helicopters dragging giant buckets of water on long cables had tried -- but failed -- to douse the fast-moving front.

The National Park Service set the fire on May 4 to clear brush near Bandelier National Monument, but blowtorch winds soon drove the blaze into tinder-like brush and ponderosa pine forests. A special National Weather Service forecast faxed to the park earlier had warned that danger levels were extreme.

On Thursday, the Park Service suspended its local supervisor, Roy Weaver, pending further investigation. Several members of Congress, as well as Secretary of the Interior Bruce Babbitt, said they would investigate.

Author: BOB DROGIN  Los Angeles Times
Section: MAIN
Page: A1

Paper: Los Angeles Times
Title: Lab's Nuclear Material Called Safe Amid Fire - Disaster: Energy secretary views Los Alamos, N.M., facility. Blaze has destroyed 113 homes nearby.
Author: BOB DROGIN
Date: May 12, 2000
Section: PA
Page: A-1

Blinding yellow smoke swallowed part of the Los Alamos National Laboratory on Thursday afternoon as a fierce brush fire burned several hundred yards from Technical Area 55, the bland name for America's most heavily guarded--and arguably most dangerous--warehouse.

"There it is," Bill Richardson, the secretary of Energy, said with audible relief when the acrid smoke finally cleared. He peered out the van at the reinforced concrete complex that is the nation's chief storehouse of plutonium used in nuclear weapons.

The highly radioactive material and other warhead components are safely entombed in steel vaults inside a structure designed to withstand fires, earthquakes and even a "direct crash from a 747," said lab Director John Browne as he led Richardson on a tour of the worst natural disaster ever to hit America's oldest and largest nuclear weapon facility. But if all nuclear materials at the lab were secure, and Richardson and other officials insisted they were, the wind-driven fire that forced the evacuation of 18,000 people from three nearby towns and destroyed or damaged hundreds of homes over the last two days continued to rage out of control. Miraculously, no one has been killed or seriously injured.

Officials said that the fire was growing in every direction except west as winds gusting to 60 mph whipped the orange flames into a devil's dance of destruction. Continued high winds and low humidity are predicted for today.

"This fire is doing what it wants to do," Los Alamos County Fire Chief Doug MacDonald told Richardson inside an underground bunker used as the lab's emergency command post. "It doesn't have a place where it can't go."

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The fire also approached other sensitive buildings at the lab, including facilities used for critical experiments with nuclear materials, but Browne said that none was damaged.

"No buildings have been breached," he said.

Of immediate concern was a waste storage facility in the fire's path. Browne said that only a thin roof protects 55-gallon drums filled with low-level nuclear waste such as contaminated gloves. Firefighters sprayed foam along the road to keep the blaze away.

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Chavez said that the fire had gutted 113 homes in Los Alamos, which adjoins the lab, but that hundreds more were damaged. The wind suddenly gusted as he spoke, blowing stinging black grit and debris down the street.

"I think if winds prevail, the worst is yet to come," Chavez said softly. "This fire won't die until it runs out of fuel."

Indeed, officials warned that the fire--which began as a deliberately set controlled burn last week and now has laid waste to more than 25,000 acres of northern New Mexico's sere high-desert country--was fast approaching White Rock, a Los Alamos suburb that was evacuated before dawn Thursday.

Heavy smoke grounded airborne "slurry bombers," which drop chemical retardant on forest fires, for a second day. MacDonald said that helicopters dragging giant buckets of water on long cables had tried to douse the fast-moving front.

"We didn't touch it," he said wearily. "That thing is really growing."

Fire crews worked feverishly with hand tools and bulldozers to clear vegetation and carve firebreaks ahead of the fire. Thick smoke roiled out of a valley, and orange flames flickered and writhed on a distant hillside.

The fire seemingly chose its victims in Los Alamos. On 45th Street on the city's northern edge, a bungalow stood untouched in the middle of a score of scorched shells and downed power lines.

The fire melted refrigerators, baked and blackened a yellow Corvette in someone's driveway, twisted bicycles and bathtubs and turned trees into smoking skeletons. But a basketball hoop, complete with net, somehow survived the inferno and stood erect amid the devastation.

"One of my officers lives here," said Los Alamos police Sgt. John Chicoine, pointing to the ruins of another home and shaking his head sadly. "Or lived there."

Amazingly, a "For Sale" sign planted out front was unscathed.

National Guard troops in Humvees rumbled through the ghost town to prevent looting. Animal control teams rounded up pets and other animals to take them to safety.

Los Alamos long has billed itself as America's "atomic city." It was built on the edge of a rocky volcanic caldera in the 1940s to house the scientists and staff who developed and built the atomic

bombs dropped on Japan. Since then, it has designed and helped test nearly every nuclear weapon in the U.S. arsenal.

The lab, which covers 43 square miles, has survived three previous wildfires since 1954, but none until now was severe enough to close the lab. It was closed Monday, and Browne said that he does not know how quickly it can reopen.

The National Park Service set the fire on May 4 to clear brush near Bandelier National Monument, but blowtorch winds soon drove the blaze into tinder-like brush and ponderosa pine forests. A special National Weather Service forecast faxed to the park earlier had warned that the fire danger was extreme.

On Thursday, the Park Service suspended its local supervisor, Roy Weaver, with pay, pending further investigation. Several members of Congress, as well as Secretary of the Interior Bruce Babbitt, said they would investigate.

"Somebody made a mistake, and obviously we have to find out who," Sen. Pete V. Domenici (R-N.M.) said at a news conference at the tiny Los Alamos airport before touring the town.

Domenici sought to dampen rumors that the public was at risk from nuclear materials at the lab or that the Army was on standby to move the plutonium off the site.

"We're not moving anything," he said. "There's nothing dangerous up here except the forest fire."

Standing by his side, New Mexico Gov. Gary Johnson did not appear entirely reassured, however. He said that fiery embers from blazing trees had jumped a mile at a time, leapfrogging and overwhelming firefighters who have poured into the area.

"We may just be seeing the beginning of a real catastrophe," he said.

Mike Dombeck, chief of the U.S. Forest Service, agreed. "We're sort of at the mercy of the weather right now."

James Lee Witt, head of the Federal Emergency Management Agency, said FEMA would assist anyone forced to flee the fire. "We'll provide whatever resources the [state] government needs."

In Washington, President Clinton expressed sympathy for those who had lost their homes. "This is a a very, very difficult situation, and I know that the prayers and support of all Americans will be with the people out there."

Author: BOB DROGIN
Section: PA
Page: A-1

Paper: Journal Gazette, The (Fort Wayne, IN)
Title: FIRE RAGES NEAR NUCLEAR LAB FIRE RAGES NEAR NUCLEAR LAB FLAMES TEASE NEW MEXICO FACILITY
Author: Los Angeles Times
Date: May 12, 2000
Page: 1A

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Author: Los Angeles Times
Page: 1A

5/13/00 New Mex.

# In brief

## Los Alamos Study Group says air is OK

Los Alamos Study Group, the Santa Fe-based LANL watchdog group, got more than a hundred phone calls from worried area residents Friday, according to volunteer worker Dearing Fauntleroy.

The study group began conducting its own monitoring of smoke from the Cerro Grande fire Thursday, tested for radioactivity from an airplane and repeated the tests on Friday. They found no emissions out of the ordinary, workers said.

Fauntleroy said callers seemed to want a "second opinion" — besides that of government spokespeople — on whether the fire was posing serious health dangers because of radioactivity or chemical emissions.

"They say, 'Should we stay here? Are you all doing any monitoring? We don't know what to believe. They don't seem to be saying too much on TV,' " Fauntleroy said. He said most calls were from Santa Fe residents, although people in Albuquerque also were calling.

Fauntleroy, who isn't actively involved in Los Alamos Study Group on a regular basis, said he called LASG Executive Director Greg Mello on Wednesday for exactly the same reasons.

"I knew I would get the straight scoop," Fauntleroy said. He ended up volunteering to help answer the phones.

Paper: Washington Post
Title: Park Service Ignored Risks - Los Alamos Fires Set Despite Weather Warnings
Author: Rene SanchezPaul Duggan
Date: May 13, 2000
Section: A Section
Page: A1

The massive wildfire that the National Park Service accidentally caused here from its routine practice of burning forest underbrush was lit despite a warning from weather experts seven hours earlier that the weather posed dangerous risks, federal officials said today. As an extensive federal investigation of what went wrong began, Interior Secretary Bruce Babbitt also announced this afternoon that officials in national parks and forests across the West have been ordered to suspend the practice of "controlled burns," which are commonly used to prevent large wildfires, for 30 days.

"We need to take a pause," Babbitt said. "There's an awful lot of stuff that needs to be addressed."

Meanwhile, calmer winds and cooler weather gave an army of weary firefighters just the break they badly needed today to begin taming the blaze that has been ravaging this densely wooded community, which is home to the nation's biggest nuclear weapons laboratory.

For nearly a week, the epic fight against the rolling inferno has been futile. The streets of Los Alamos are still deserted, charred and choked with smoke. But no new wildfires ignited on hillsides here today and the fierce, unpredictable fire that was set by the Park Service last weekend appeared to drift further away from both the affluent residential neighborhoods it has torched and the sprawling Los Alamos National Laboratory.

With forecasts calling for much the same mild weather over the weekend, authorities sounded their first notes of optimism after several desperate days. No one has been injured in the wildfires, but more than 20,000 people have had to make hasty evacuations to nearby Santa Fe and may be stuck living in crowded, makeshift shelters there for the next week. State officials said today that at last count, more than 250 homes had been burned to the ground.

Doug McDonald, the fire chief of Los Alamos, expressed confidence that firefighters are at last making progress. "They're really kicking some butt out there," he said. "Nothing is threatening homes anymore." And at the 43-acre nuclear weapons lab, he added, "nothing has been overrun by fire."

But the battle to extinguish all of the blazes is still far from won, and the recriminations over the source of the destructive fire have just begun.

The official responsible for authorizing the controlled burn that backfired and raced out of control, Superintendent Roy Weaver of the Bandelier National Monument near here,

has been placed on administrative leave. Babbitt also said that he has asked an investigative team being convened to give him a preliminary assessment of what, if any, mistakes were made by the Park Service late next week.

David Barna, a Park Service spokesman, said that at this point Weaver is not being held culpable for the disaster. He called Weaver a "a very well-respected and highly regarded" employee of 33 years. Barna said he was put on leave because the community "needed a signal that someone else is now in charge."

The National Weather Service said today it notified the Park Service that atmospheric conditions were highly unsuitable for controlled burning well before its workers near Los Alamos began using fire to clear away dead brush on May 4.

Officials at the Bandelier National Monument, about six miles from Los Alamos, informed the weather service office in Albuquerque at 11:35 a.m. that day it was planning to do controlled burning at the park and requested atmospheric data, said Mack McLaughlin, a regional supervisor of the weather service. McLaughlin said the Albuquerque office responded at 12:20 p.m. with a bulletin headlined, "6 HAINES INDEX THROUGH FRIDAY."

The Haines index gauges the potential for a forest fire to grow and spread, according to the National Interagency Fire Center in Idaho. The center, which coordinates wilderness firefighting efforts of several government agencies, said the Haines index takes into account the moisture content of the air at 10,000 feet and the stability of the layer of air between 10,000 feet and 18,000 feet.

On a scale of 2 to 6, the index rates the danger of a fire, in terms of the potential for those atmospheric conditions to draw flames into the sky and spread burning embers to other places.

Don Smurthwaite, a spokesman for the Idaho center, said that a Haines index of 2 or 3 means atmospheric conditions are suitable for controlled burning, provided that surface wind speeds, humidity and other factors also are favorable. But regardless of those other factors, a Haines index of 4 is a "heads up zone," he said, and a 5 or 6 means that the likelihood of a controlled fire going out of control is high.

The Park Service has said that the controlled burning on a 300-acre section of the 32,727-acre Bandelier National Monument began at 7:20 p.m. that Thursday, seven hours after the weather service had sent its bulletin, according to McLaughlin. Sometime early Friday, the fire exploded out of control.

A week later, the fight to contain it is still intense. Helicopters and planes streaked across the smoky sky above Los Alamos today, dumping thousands of gallons of water into burning canyons.

Fire danger had passed thelamos nuclear laboratory today. The blaze did burn around an area of the-square-mile lab facility that serves as a radioactive waste facility, an Energy Department spokesman said. The so-called "Area G" covers 63 acres and contains more than 10 million square feet of nuclear waste, according to the **Los Alamos Study Group** (LASG), a nonprofit environmental group in Santa Fe that monitors the lab's activities.

Hundreds of firefighters also charged into scorched neighborhoods and began hosing smoldering rubble.

"We're pretty tired, but we'll get it done," said Teofilo Castillo, among a squad of firefighters dispatched here from a New Mexico town 175 miles away. They had worked through the night, slept for three hours and returned this morning. "We have a better chance now. The winds were much stronger yesterday."

On many streets in Los Alamos, which is largely a community of scientists and engineers who work at the government nuclear lab, there was no rhyme or reason to the wildfire's wrath. Some burned homes were in ruins, with nothing more than brick chimneys or outdoor basketball hoops intact. But other homes just a few yards away somehow had been entirely spared from the blaze.

More than 250 National Guardsman patrolled Los Alamos and hauled in water while police set up roadblocks and continued to keep residents out. Early in the day, authorities announced plans to escort families back to their neighborhoods for brief visits this weekend. But by afternoon they had changed their minds.

"Right now, it's still not safe," said Republican Gov. Gary Johnson.

At shelters in Santa Fe, officials grimly began reading a list of which homes had been destroyed to anxious crowds. Robert Hoeberling, 21, who evacuated his Los Alamos home in haste Wednesday night, spent hours today outside of police headquarters here, waiting with his sister for good news. It never arrived.

He kept staring at the gray smoke lingering over the hills. "None of us expected it to get this bad," he said. "At least it's looking better now."

Sanchez reported from Los Alamos, Duggan from Austin. Staff writer Walter Pincus in Washington contributed to this story.

Author: Rene SanchezPaul Duggan
Section: A Section
Page: A1

Paper: Mobile Register (AL)
Title: Park Service started fire despite weather warnings
Author: RENE SANCHEZ
Date: May 13, 2000
Section: A
Page: 05

Park Service started fire despite weather warnings Wildfire in New Mexico spurs suspension of controlled burns in Western national parks, forests By RENE SANCHEZ Washington Post LOS ALAMOS, N.M. - The massive wildfire that the National Park Service accidentally caused here from its routine practice of burning forest underbrush was lit despite a warning from weather experts seven hours earlier that the climate posed dangerous risks, federal officials said Friday. As an extensive federal investigation of what went wrong began, Interior Secretary Bruce Babbitt also announced Friday afternoon that national parks and forests across the West have been ordered to suspend the practice of "controlled burns," which are commonly used to prevent large wildfires, for 30 days.

"We need to take a pause," Babbitt said. "There's an awful lot of stuff that needs to be addressed." Winds calmer Meanwhile, calmer winds and cooler temperatures gave an army of weary firefighters just the break they badly needed Friday to begin taming the blaze that has been ravaging this densely wooded community, which is home to the nation's biggest nuclear weapons laboratory.

For nearly a week, the epic fight against the rolling inferno has been futile. The streets of Los Alamos are still deserted, charred and choked with smoke. But no new wildfires ignited on hillsides here Friday and the fierce, unpredictable one that was set by the Park Service last weekend appeared to drift further away from both the affluent residential neighborhoods it has torched and the sprawling Los Alamos National Laboratory.

With forecasts calling for much the same mild climate over the weekend, authorities sounded their first notes of optimism after several desperate days. No one has been injured in the wildfires, but more than 20,000 people have had to make hasty evacuations to nearby Santa Fe and may be stuck living in crowded, makeshift shelters there for the next week. State officials said Friday that at last count, more than 250 homes had been burned to the ground.

Doug McDonald, the fire chief of Los Alamos, expressed confidence that firefighters are at last making progress. "They're really kicking some butt out there," he said. "Nothing is threatening homes anymore." And at the 43-acre nuclear weapons lab, he added, "nothing has been overrun by fire." Who's to blame? But the battle to extinguish all of the blazes is still far from won, and the recriminations over the source of the destructive fire have just begun.

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has been placed on administrative leave. Babbitt also said that he has asked an investigative team being convened to give him a preliminary assessment of what if any mistakes were made by the park service.

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Fire danger had passed the Las Alamos nuclear laboratory Friday. The blaze did burn around an area of the 42-square mile lab facility that serves as a radioactive waste facility, an Energy Department spokesman said. The so-called "Area G" covers 63 acres

and contains over 10 million square feet of nuclear waste, according to the **Los Alamos Study Group** (LASG), a non-profit environmental group in Sante Fe that monitors the lab's activities.

Hundreds of firefighters also charged into scorched neighborhoods and began hosing smoldering rubble. CUTLINES: ELAINE THOMPSON/Associated Press Wildfire smoke billows from a valley behind the Los Alamos National Laboratory on Friday afternoon in Los Alamos, N.M.

Author: RENE SANCHEZ
Section: A
Page: 05

Paper: New Mexican, The (Santa Fe, NM)
Title: Letters
Date: May 14, 2000
Section: Opine
Page: F-9

Los Alamos doesn't deserve pejorative treatment. Once again one of your editorials has been as pejorative as possible on the subject of Los Alamos.

In a comparison with fire-suppression efforts in the Lake Tahoe area (casinos?) you said, ``Surely Los Alamos National Laboratory, where the flammables include plutonium and other elements of holocaust, deserves at least as great an effort at fire-proofing.'' And I notice that **Greg Mello**, the full-time, paid handwringer, gets top billing over John Browne, the laboratory director, in an article.

The implication is that the laboratory keeps plutonium and high explosives just sitting around helter-skelter. Maybe on picnic tables in the open? The people who work with the materials and presumably know them best are presumed to be completely devoid of any feelings of responsibility. In the future, please make a token attempt to get some facts before rolling the presses.

In 1956, Norris Bradbury, the laboratory director, ordered the lab to come into compliance with the Ordnance Safety Manual, the national standard for ordnance safety (and pattern for much of the NATO requirements). Many of our local requirements at the time were more detailed and stringent. But let me quote from Section 12-18 of the OSM: ``A firebreak at least 50 feet wide and free from combustible material shall be maintained around each aboveground type magazine and around each outdoor storage pad containing ammunition or explosives.'' Outdoor storage pads do not apply to the lab: it demanded a higher level of safety. The ``shall'' is taken very seriously. Detailed quantity-distance tables are followed, usually allowing an additional safety margin.

At the time of the La Mesa fire, I sat on top of a magazine at Q-Site and watched the fire approach. The wall of fire was impressive, but it did not approach any magazines. Uncounted wild animals ran into our area for safety.

The citizens of the United States can decide what type of national defense they want, if any. This being a democracy, it is considered bad form to badmouth the persons tasked to provide what the nation wants. Inciting public panic is the approach of demagogues. Please rethink your editorial policies.

R.N. Rogers

Los Alamos

Los Alamos action

Paper: The Denver Post
Title: Reporters get rare peek at nuclear lab Government seeks to ease concerns of radiation after fire
Author: John MacDonald The Associated Press
Date: May 14, 2000
Section: DTW
Page: B-07

LOS ALAMOS, N.M. - In a move officials called unprecedented, Los Alamos National Laboratory gave an extensive tour of its facilities to reporters Saturday, trying to allay fears that a wildfire damaged key research and nuclear waste areas at the high-security lab. "This is an attempt to show you we are not hiding anything," said Gen. Gene Habiger, director of security and emergency response for the Department of Energy. "If anyone thinks the government, the Department of Energy, can suppress the truth, they're wrong."

The agency and the laboratory have come under criticism in recent days, accused by anti-nuclear activists of not being forthcoming about the extent of damage and possible health concerns caused by the fire that scorched northern New Mexico.

The blaze began as a prescribed burn to clear brush in the adjacent Bandelier National Monument. But the fire quickly got out of hand, fueled by dry conditions, high temperatures and winds of 50 mph.

Lab officials said that while the flames started grass fires on lab property, burned brush and destroyed several trailers, they did not get into critical areas where nuclear materials or hazardous waste are stored.

Long cloaked in secrecy, the lab is one of the nation's most important nuclear weapons research facilities and was responsible for the growth of the town around it.

Pressured to provide more details, the DOE and lab officials agreed to take reporters on a 21/2 hour tour of the 43-square-mile lab. The tour included stops at key installations, including the nation's only active plutonium facility, which is normally off limits to the public and under 24-hour armed guard.

At each stop, officials pointed out that despite the danger of the fire, the lab's emergency procedures worked and prevented the damage or loss of any significant structures.

"Was there ever the risk of total disaster? If you mean disaster in the sense of losing one of these facilities, I would say we were a long way from that," said Stan Busboom, the lab's security director.

The plutonium facility, known as Technical Area 55, sits on a high mesa surrounded by deep ravines filled with juniper and heavy brush. While much of the ground surrounding

the facility was charred, officials pointed to where firefighters were able to stop the flames about 50 feet short of the high-security fence around the site.

All through the lab grounds, fallen ponderosas and the cobweblike juniper bushes continued to smolder Saturday.

Dick Burick, deputy director of operations at the lab, credited "hero firefighters" for preventing damage at another research facility known as TA18. The site, where nuclear experiments are conducted, sits in a deep gulch and was at one time nearly circled by fire.

One of the areas of greatest concern, a waste storage site known as TA55, also was untouched by flames. The site is used to store certain types of nuclear waste temporarily until it can be shipped elsewhere for permanent disposal.

Ongoing air quality samples have shown no increases in radiation at the lab or in surrounding areas, lab officials said.

"I'd go downwind in a heartbeat and live there for the rest of my life," Habiger said.

A 1998 Energy Department study explored the possible effect of a wildfire at the laboratory. It said that in a worst-case scenario higher levels of radiation would be released in the plumes of smoke, but the effect would likely be negligible.

Some still criticized what they saw as a lack of information.

"The trouble is we really don't know what burned when and we basically had no information from the laboratory of any sort of detailed, technical kind that any outside person could interpret to provide credibility," said Greg Mello, director of the anti-nuclear **Los Alamos Study Group**. "There definitely was danger."

Author: John MacDonald The Associated Press
Section: DTW
Page: B-07

Paper: Press of Atlantic City, The (NJ)
# LOS ALAMOS LAB OFFERS RARE TOUR TO RELIEVE SAFETY WORRIES
Author: Associated Press
Date: May 14, 2000
Section: GENERAL
Page: A7

In a move officials called unprecedented, Los Alamos National Laboratory gave an extensive tour of its facilities to reporters Saturday, trying to allay fears that a wildfire damaged key research and nuclear-waste areas at the high-security facility.

"This is an attempt to show you we are not hiding anything," said Gene Habiger, director of security and emergency response for the Department of Energy. "If anyone thinks the government, the Department of Energy, can suppress the truth, they're wrong. "The agency and the laboratory have come under criticism in recent days, accused by anti-nuclear activists of not being forthcoming about the extent of damage and possible health concerns caused by the fire that scorched northern New Mexico.

The blaze began as a government-prescribed burn to clear brush in the Bandelier National Monument, adjacent to the lab. But the fire quickly got out of hand, fueled by dry conditions, hot temperatures and winds of 50 mph.

Lab officials said that while the flames started grass fires on lab property, burned brush and destroyed several trailers, they did not get into critical areas where nuclear materials or hazardous waste are stored.

Long cloaked in secrecy, the lab is one of the nation's most important nuclear-weapons research facilities and was responsible for the growth of the town around it.

Pressured to provide more details, the DOE and lab officials agreed to take reporters on a 2 1/2-hour tour of the 43-square-mile lab. The tour included stops at key installations, including the nation's only active plutonium facility, which normally is off-limits to the public and under 24-hour armed guard.

At each stop, officials pointed out that despite the danger of the fire, the lab's emergency procedures worked and prevented the damage or loss of any significant structures.

"Was there ever the risk of total disaster? If you mean disaster in the sense of losing one of these facilities, I would say we were a long way from that," said Stan Busboom, the lab's security director.

The plutonium facility, known as Technical Area 55, sits on a high mesa surrounded by deep ravines filled with juniper and heavy brush. While much of the ground surrounding the facility was charred, officials pointed to where firefighters were able to stop the flames about 50 feet short of the high-security fence surrounding the site.

All through the lab grounds, juniper bushes and fallen ponderosas continued to smolder Saturday.

Dick Burick, deputy director of operations at the lab, credited "hero firefighters" for preventing damage at another research facility known as TA18. The site, where nuclear experiments are conducted, sits in a deep gulch and at one time was nearly circled by fire.

One of the areas of greatest concern, a waste-storage site known as TA55, also was untouched by flames. The site is used to store certain types of nuclear waste temporarily until it can be shipped elsewhere for permanent disposal.

A 1998 Energy Department study explored the possible effect of a devastating wildfire at the laboratory. It said that in a worst-case scenario, higher levels of radiation would be released in the plumes of smoke, but likely with negligible effects.

Despite the tour, some still criticized what they saw as a lack of information.

"The trouble is we really don't know what burned when and we basically had no information from the laboratory of any sort of detailed, technical kind that any outside person could interpret to provide credibility," said Greg Mello, director of the anti-nuclear **Los Alamos Study Group**. "There definitely was danger."

Author: Associated Press
Section: GENERAL
Page: A7

# Lab hopes tour alleviates public's fears

5/14/00

▶ *LANL officials show reporters key installations to back up claims that all is OK*

By JOHN MacDONALD
The Associated Press

LOS ALAMOS — In a move officials called unprecedented, Los Alamos National Laboratory gave an extensive tour of its facilities to reporters Saturday, trying to allay fears that a wildfire damaged key research and nuclear-waste areas at the high-security lab.

"This is an attempt to show you we are not hiding anything," said Gen. Gene Habiger, director of security and emergency response for the Department of Energy. "If anyone thinks the government, the Department of Energy, can suppress the truth, they're wrong."

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

## LAB

**Continued from Page A-1**

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Long cloaked in secrecy, the lab is one of the nation's most important nuclear-weapons research facilities and was responsible for the growth of the town around it.

Pressured to provide more details, the DOE and lab officials agreed to take reporters on a 2½ hour tour of the 43-square-mile lab. The tour included stops at key installations, including the nation's only active plutonium facility, which is normally off-limits to the public and under 24-hour armed guard.

At each stop, officials pointed out that despite the danger of the fire, the lab's emergency procedures worked and prevented damage to any significant structures.

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The plutonium facility, known as Technical Area 55, sits on a high mesa surrounded by deep ravines filled with juniper and heavy brush. While much of the ground surrounding the facility was charred, officials pointed to where firefighters were able to stop the flames about 50 feet short of the high-security fence surrounding the site.

All through the lab grounds, junipers and fallen ponderosas continued to smolder Saturday.

Dick Burick, deputy director of operations at the lab, credited "hero firefighters" for preventing damage at another research facility known as Technical Area 18. The site, where nuclear experiments are conducted, sits in a deep gulch and was at one time nearly encircled by fire.

One of the areas of greatest concern, the Technical Area 55 waste-storage site, also was untouched by flames. The site is used to store certain types of nuclear waste temporarily until it can be shipped elsewhere for permanent disposal. Ongoing air-quality samples have shown no increases in radiation at the lab or in surrounding areas, lab officials said. "I'd go downwind in a heartbeat and live there for the rest of my life," Habiger said.

A 1998 Energy Department study explored the possible effect of a devastating wildfire at the laboratory. It said that in a worst-case scenario higher levels of radiation would be released in the plumes of smoke, but the effect would likely be negligible.

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Paper: Newsday (Melville, NY)
Title: Forest Fire Foretold / '99 analysis warned of Los Alamos risks
Author: Earl Lane. WASHINGTON BUREAU
Date: May 14, 2000
Section: NEWS
Page: A07

Los Alamos, N.M.-The fire starts southwest of Los Alamos National Laboratory, near the lab's border with the forested Bandelier National Monument. It overwhelms efforts by firefighters, jumping roads and crossing canyons until it sweeps into residential areas of Los Alamos four days after it begins. Eventually, some 27,000 acres are burned, including 8,000 on the lab grounds.

That scenario, strikingly like the devastating wildfire raging for real in the Los Alamos area, was described last year in a 25-page section of a long environmental impact statement prepared for the laboratory. It describes a range of potential hazards from a site-wide wildfire, including exposure of contaminated earth previously protected by vegetation and lofting of some soils containing low levels of radioactivity.

The current fire, which continues to burn parts of the lab grounds, has consumed less than the acreage assumed for the lab in the January, 1999, wildfire analysis. Officials say it has not breached any major structures or storage areas for nuclear materials, explosives or radioactive wastes. They reinforced that point yesterday by allowing members of the media onto the lab grounds to view the facilities.

Although there were blackened areas along the roads and damage to a few temporary structures, key areas with nuclear materials showed no evidence of fire damage or even burned grass nearby. Lab firefighters concentrated on protecting such structures, officials said, while Forest Service crews and others fought the main fire.

Preliminary evidence suggests no unusual releases of radioactivity caused by the fire, officials said, although analysis of air samples from the lab's fixed-site monitors is not expected until mid-week.

"I have not had one report, not one observation that would lead me to a conclusion other than no releases," said Eugene Habiger, the Department of Energy's head of security and emergency response.

Lee McAtee, deputy division director for environmental matters at Los Alamos, did say air monitors have picked up some slight increases in radiation that he said are consistent with a release of naturally occurring radioactive elements in trees when they burn.

The lab's 1999 wildfire analysis talks about some potential fire consequences over the longer term, however. It has drawn close scrutiny from environmentalists, who say it reinforces their view that the current fire could have impacts yet to be detected or fully acknowledged by lab officials. The debate spotlights the amount of cleanup still to be accomplished at Los Alamos and other U.S. Department of Energy nuclear facilities after decades of no longer acceptable environmental practices.

"There are hundreds of contaminated sites" on lab property, said Greg Mello, director of the nonprofit **Los Alamos Study Group**, a local watchdog organization. He said he is particularly

concerned about the fate of soils and vegetation contaminated with depleted uranium, a metal with low levels of radioactivity that was used extensively in tests of dummy warhead designs. Mello said an estimated 250,000 pounds of depleted uranium had been dispersed through explosions on lab property over the years, a figure McAtee could not immediately confirm.

The wildfire analysis said that as trees and vegetation burn, "some fraction of the soil is entrained into the fire and transported and dispersed downwind." It also said wind can swirl surface soils after the fire and "has the potential of exposing workers returning to the area, as well as the transient public, until the situation has stabilized and vegetation has begun to recover." It noted, however, that most of the contamination is not near roads.

The report estimates that some low-level radioactivity from contaminated soils would be lofted during a fire but said the doses would be minimal, from 0.18 to 0.21 millirems at 330 feet downwind from two of the lab's explosives firing sites. A millirem is a standard measure of radiation exposure, with natural background levels from rocks and cosmic rays typically about 300 millirems.

The analysis said "there is no ready evidence that burning of the vegetation over the firing sites would produce detectable airborne DU [depleted uranium]." It cites tests at the Jefferson Proving Ground in Madison, Ind., where depleted uranium from exploded projectiles is present in soils and the undergrowth is controlled with regular burning. In one study, monitors did not detect any airborne depleted uranium during burning.

State officials are working jointly with federal agencies to set up more monitors to watch the air quality of smoke from the Los Alamos fire. Pete Maggiore of the New Mexico Department of Environment said his agency also will pay close attention to soil stability and runoff at the lab in the wake of the fire.

Given past environmental practices, McAtee said he understands the concerns of lab critics. "I know there is a lot of distrust," he said. "We are going to do everything that we can to dispel that mistrust." He said the 1999 fire analysis dealt with worst-case scenarios and triggered changes, including recent thinning of timber near fire-vulnerable sites. "I'm convinced if we didn't do that, we'd be in far worse shape that we are today," McAtee said.

While the current fire was a result of a controlled burn at Bandelier National Monument that got out of hand, the lab's analysis of fire danger concluded that a major fire, natural or human-induced, "moving up to the edge of [lab property] is not only credible but likely." It said there was perhaps a 1 in 10 chance per year of such a fire, although it said the annual likelihood of a site-wide fire "is surely less."

Author: Earl Lane. WASHINGTON BUREAU
Section: NEWS
Page: A07

# Mello: Initial pronouncment on hazards innaccurate

By RICHARD ROBARDS
For the Monitor

Although the impact on health, over and above the toxic components of wood smoke resulting from Cerro Grande fire, are believed to be minimal, the executive director of the anti-nuclear Los Alamos Study Group says he hopes lessons have been learned.

Greg Mello says that the community early on received no credible information, and he blames that on officials from the lab who, for whatever reason, were reluctant or unable to provide specific data.

Mello claims that officials from the lab and the Department of Energy (DOE) could have picked up the phone and said they wanted the fire out.

"They have the clout," Mello said.

Mello says Bandelier Nation Monument Park Superintendent Roy Weaver deserves credit for taking responsibility when Mello feels others are just as much to blame

Mello says it is hard for a Santa Fe resident to understand why massive resources weren't used from the very beginning. .

And, Mello says he thinks it is prudent to get the highest quality information at the earliest possible time. He says University of California officials, who oversee the lab, and the DOE have been remiss in that area in the past.

Mello says the initial pronouncement that no hazardous material was involved in the fire could not have been accurate. He said he saw contaminated areas burning during flyovers the first two days of the blaze.

Mello contends there was a risk of airborne dioxins from PCB and contaminated soils and plants. He says the lab has used a quarter-million pounds of depleted uranium over the years which is in the environment somewhere.

"They should be able to turn it (air quality data) around in a day, Mello said.

During a tour of lab property Saturday Lee McAtee, deputy director for environmental, said that air samples are being taken around the clock.

Normally those sample are picked up every two weeks, but because of concerns raised by the public, McAtee said he would hope to get those results in five days. Once those results are available they will be posted on the LANL web site at www.lanl.com.

A new set of monitoring devices were set up Sunday at six locations around the fire site, according to Nathan Wade, communications director for the State Department of Environment.

> "They knew that the fire could skip a mile at a time."
>
> *— Greg Mello*
> *Los Alamos Study Group*

Wade said there are so many monitoring devices situated in the area monitoring different "stuff" and by different agencies that the new monitoring system should be able to give analysts data on a daily basis. The 12 monitoring stations are being monitored by Wade's environmental agency and the federal EPA.

The monitors will allow for chemical and radiological information data on a more consistent basis.

Wade said environmentalists couldn't go back in time, but since the fire is not yet out, he feels valuable data is forthcoming. He also pointed out that data already secured indicates that there is a constant level of radiation before, during and now and there is no indication of any catastrophic release of radiation.

"There is no vast difference, no huge spikes," Wade said.

Wade said the monitors are like a vacuum cleaner with a filter on the end. The first set of "coffee" filters were collected Monday morning and taken to the EPA mobile lab near Española.

Additional data will be sent to laboratories for additional chemical and radiological analysis.

The SDOE data will be posted on its web site at www.nmenv.state.nm.us.

Mello says the dilution factor of any air contaminant is going to be very great. So, for those downwind of the fire there is already a huge dilution factor to be considered.

Mello says monitoring now is really too late. When the smoke plume was hovering above Espanola and Dixon, that would have been the time to have had definitive data.

A more substantial risk developed from potential exposure to the fire of outdoor chemical tanks and small amounts of nuclear materials used by individual researchers.

Mello says the fire came much too close to TA 54 where nuclear waste is stored.

Mello gives high marks to the firefighters who have skillfully and selflessly fought to keep the fire under control, but he wonders if the fire could have been avoided altogether.

Mello says there needs to be improvements in fire potential housekeeping and compliance with regulations of the Research Conservation recovery Act (RCRA).

"I know the lab has resisted compliance in favor of 'let us do it our way, we can do it better,'" cins Mello.

And, although lello says forestry and fire offals deserve some credit, they also ed to shoulder some blame.

He claims that the fi followed a pattern that had been dicted, and the steps taken to fht it were known to be inadequatat the time they were taken.

"They knew that th fire could skip a mile at a time." d Mello.

Mello says there needs be consideration given to tree-free ffer zones.

Doug MacDonald, cief of the Los Alamos Fire Depament says tree-free zones have bea a goal of the fire department sincethe Dome fire of 1996.

"It's because of thos tree-free zones that we haven't eperienced any more of a loss than we have," said MacDonald.

MacDonald said on Mnday that the Wildlands Fire Management Team has been concerned about tree-free zones and will continue to address that concern.

"Nuclear facilities and forests are not compatible," Mello said.

Paper: The Arizona Daily Star
Title: Los Alamos lab lax on fire protection efforts, critics say
Author: Tony Davis
Date: May 16, 2000
Section: NEWS
Page: A1

LOS ALAMOS, N.M. -- For once, Los Alamos National Laboratory officials and one of the lab's fiercest critics agree on something -- that the raging forest fire that destroyed more than 200 buildings in the town almost certainly didn't send harmful amounts of radiation into the air. But there is disagreement about whether the lab did all it could to protect itself from the fire and concern from another activist about the effects of the burning of plastics, pipes and other materials containing hazardous chemicals on and off the lab property.

There is also uncertainty about what the laboratory will do to try to ensure that future fires aren't as damaging to its 43-square-mile property in the heart of ponderosa pine forest as this one was.

Nobody questions, however, that laboratory officials knew that a fire of the scale of the Cerro Grande blaze could strike its property.

A lab-commissioned report confirmed that in 1997. That report predicted that a fire of twice the scale of the one that hit the lab last week could strike it someday, and that a 10 percent chance existed in a given year of a major fire moving to the laboratory's edge from the Santa Fe National Forest to the west.

The worst-case-scenario fire could burn enough radioactive material at the lab to release more radioactivity in the air than workers in a nuclear plant are legally supposed to receive, the report said. But the average person's risk still wouldn't be that great, according to the report. Dilution of those materials in the air would allow someone living within 50 miles of the lab to inhale far less radiation than what nature puts into the air, according to the report.

The Cerro Grande fire entered the laboratory in precisely the same fashion and from the same direction that the 1997 report predicted. The question is: Was enough done to protect the site since that report appeared?

The fire, having charred 44,323 acres of northern Mew Mexico forest as of yesterday, has burned about 14 percent of the lab's property.

Meanwhile, more than three-quarters of Los Alamos was reopened to residents yesterday, while the fire raged out of control on other fronts. Firefighters were worried about weather reports calling for 50 mph wind gusts today.

Nearly 9,000 residents were allowed back into the less severely damaged parts of this town of 11,000, which was evacuated entirely last Wednesday.

While the fire gutted about 220 to 235 homes and apartment buildings in town, it burned no permanent lab structures or any other buildings that contained hazardous or radioactive materials, Los Alamos officials have said. The lab remains closed, though.

The fire destroyed four trailers, a transportable building used as a machine shop, two storage sheds, two cargo containers and a pickup truck. The fire crept to within a half-mile of where the lab is storing inside plastic tents thousands of drums of plutonium-tainted wastes that come from its research work on nuclear weapons design.

Those wastes are slated for shipment over the next few years to the Waste Isolation Pilot Plant, a federally owned nuclear waste dump in Carlsbad.

Flames also burned above, but not on, an area containing the nation's only lab for turning plutonium into the first stage of nuclear weapons.

Since the fire started May 4, all readings from 50 monitors have shown no radiation levels above what one would expect under natural conditions, said Lee McAtee, the lab's deputy director for environment, safety and health. The permanent, Los Alamos-owned radiation monitors are scattered around the area of Los Alamos, Santa Fe and Espanola.

"It's unlikely there could have been a release that wouldn't be diluted right away," said Greg Mello, head of the Santa Fe-based **Los Alamos Study Group**, which has long criticized the lab's presence and safety record. "It could have been a big problem, but I don't think it was a big problem, unless a firefighter could have gotten some dioxin or something like that in him."

Paul Robinson, research director for Albuquerque's Southwest Research and Information Center, said he doesn't have trouble believing that the lab could keep track of the radioactive and other materials in concrete bunkers. His group has been the longest-running critic of Los Alamos and other U.S. Department of Energy-owned or contracted-out facilities in New Mexico.

"It's the liquid wastes left in the canyons on the lab, where radioactive effluent has been discharged, that I'm concerned about," Robinson said.

The lab dumped radioactive and chemical wastes into those canyons many years ago, although it has cleaned much of that up since then. With fire having stripped many of the trees from the hillsides above the lab, environmentalists are concerned that erosion could give more juice to summertime floods to wash the remaining radioactive materials in the canyons into other waterways that feed the Rio Grande.

The lab's McAtee acknowledged that erosion is "what we are taking a long look at right now."

The lab has commissioned several teams to figure out priorities for future protection, he said.

Mello took the lab to task for not having done more to keep the fire from jumping as far as it did. After the 1997 report surfaced, the laboratory and other agencies cut a huge firebreak along a major road bordering the property.

That held off the fire for some time until it eventually jumped the break last week, lab officials and their critics agreed.

But the lab should have started cutting large amounts of trees around buildings last weekend, Mello said.

"The resemblance of this fire to the catastrophic fire predicted in its own analysis was staggering," Mello said.

The lesson of this fire: You can't have sensitive facilities in the woods, he said.

"It's a little too close for comfort -- way, way too close for comfort," Mello said.

The Associated Press contributed to this report.

Author: Tony Davis
Section: NEWS
Page: A1

Paper: New Mexican, The (Santa Fe, NM)
Title: Independent air-quality reports to be issued soon
Author: KRISTEN DAVENPORT
Date: May 16, 2000
Section: Main
Page: A-2

Independent data on whether Northern New Mexico air contains any harmful radiation or toxic chemicals days after fires burned through Los Alamos National Laboratory property is expected to be released today or Wednesday. However, the Department of Energy, which owns the lab, has the only data from air-quality monitoring conducted when fires on lab property were sending large plumes of smoke across the Rio Grande Valley.

The federal Environmental Protection Agency set up independent monitors on Sunday and Monday -- three to four days after the majority of fires on lab property burned.

Activists point out that the public has no choice but to trust the DOE when it says that a major release of toxic chemicals or radiation didn't happen during the worst of the fire last week.

Federal officials say monitoring this week by the state and the EPA will pick up residual amounts of anything that might have been released last week. Only the DOE was monitoring air quality on the days of the actual burns on lab property.

``Everything's been diluted,'' admitted Gregg Dempsey, an EPA official who arrived to do independent air monitoring over the weekend. Nonetheless, the smoke ``absolutely'' would still contain traces of anything released into the air if the fire burned contaminated property from the nuclear weapons lab.

``But I don't think there was a release,'' Dempsey said.

But environment officials are already looking away from the air and toward the ground, trying to figure out how to handle what they say could ultimately be the biggest environmental and health threat from the fire: erosion.

Because the side of the mountain has been burned bald, even a moderate rainfall could flood through canyons on lab property -- some of the most contaminated sites in the area -- picking up toxic chemicals along the way and carrying it to the Rio Grande.

Julie Canepa, program manager for Los Alamos National Laboratory environmental restoration, said lab officials are particularly worried about runoff and flooding in three canyons that have headwaters above severely burned slopes.

Canepa and others toured parts of the lab for the first time Monday since the fire swept across the area. They plan to put together a map this week that overlays a map of burned lab property with areas that are highly contaminated to identify where the fire could have released a plume of radiation.

``Our first job is to give the lab a list of potential release sites that could have contributed to (contamination) in the atmosphere,'' she said. However, she said, the team that toured Monday was ``very relieved'' because some highly contaminated areas appeared untouched by fire.

Initial results from air monitoring by the DOE during the worst of the fire showed slightly higher levels of radiation, which DOE officials attributed only to the radiation from the fire itself, not to any releases from toxic areas.

But the state environment department and the U.S. Environmental Protection Agency separately installed 20 air monitors around Los Alamos Sunday and Monday to independently verify that the smoke plume does not contain high levels of radioactivity.

Twelve other air monitors at six sites will test the smoke for toxic metals, volatile chemicals and other particulate contamination -- things such as asbestos.

However, state and EPA officials say they believe the DOE's initial findings are accurate and don't expect to find high levels of residual contamination. Even anti-nuclear activist **Greg Mello**, who previously said he worried the fire had released radiation into the air, said Monday he is convinced there was no major release and the smoke was probably just that -- plain old smoke.

However, he said, ``I did see contaminated areas that were burned."

``We are uncomfortable with the lack of clear information ... and we suspect they (lab and DOE officials) don't fully know what was released," he said. ``This independent monitoring is a little late in the game. The problem was late last week."

Eileen Welsome, who won a Pulitzer prize for uncovering the government's plutonium experiments on humans decades ago, told a TV station that the public should be skeptical about the DOE's initial findings.

Real answers, Welsome said, could be far off because with the DOE it ``takes weeks, months and years before the public and even state officials learn the full extent of the dangers."

The EPA air monitors have been placed at more than three dozen sites on lab property and in surrounding communities, including Espanola and Abiquiu.

Monitoring the air, however, is complicated in this situation, Dempsey said.

``This is not something we've studied in the past as a possible event," he said. Because the background radiation in the area is naturally higher because of the fire, the monitoring team has to work to establish a reasonable baseline from which it can monitor any increase.

Author: KRISTEN DAVENPORT
Section: Main
Page: A-2

# LIVING IN THE WILDERNESS

5/17/00
S. F
New Mexican

Sometimes finding paradise can lead to incredible loss.

BY JULIA GOLDBERG

Charlene Reader lives on upper Canyon Road, surrounded by pinon and juniper trees at the foothills of the Santa Fe National Forest. Last weekend, as fires raged in the Jemez, Reader cleared underbrush from around her home and pruned the trees.

The Cerro Grande fire, which began in the wilderness and traveled ferociously into the town of Los Alamos, served as a reminder that for those who live near the forest, fire is always a possibility.

Reader, who enjoys landscaping and gardening, and works for ReGenesis, a permaculture design consulting firm, is well aware of the dangers of her surroundings. It's a choice: to live near the woods and know that nature can be just as awe-inspiring in its destruction as it is in its beauty.

"The saying that goes around here is: It's not 'if a fire,' but 'when a fire,'" she says.

The fire also shed fresh light on the risks created by locating Los Alamos National Laboratory amidst the trees. The government's selection of the townsite more than 50 years ago was made for privacy and seclusion. Today, the lab's existence is no longer a secret, and perhaps its environs have become more a threat than a benefit.

**Take a drive up Hyde Park** Road or Camino Cruz Blanca or Wilderness Gate. Home after home attests to the lure of living as close to the mountains as possible.

"I think it's the American dream to have your five acres out in the wilderness and be as far away from people as possible," says Edward Archuleta, director of 1000 Friends New Mexico/Santa Fe, a nonprofit focused on urban sprawl remedies.

But just as urban sprawl has created its own host of pollution and transportation problems, the increasing number of people who choose more pastoral surroundings provokes questions of how we can live closer to nature, without being threatened by it.

"As we push against these borders of wild land, we're faced with more interactions with them," says Russell Winn, an associate professor in government who teaches environmental policy at New Mexico State University. "In some ways the fires represent this. In some ways, the interactions between wolves and man do. We're seeing more human-mountain lion contact, more human-bear contact. And as we push society out against these wild areas, we're bound to have more of them."

But it's not just fires and lions and bears. It's earthquakes and mudslides and hurricanes, as well. The people who tend to be the most impacted are those living near large ecosystems, like oceans, or forests.

"Open spaces and wild places surrounding one's home certainly contribute to quality of life," says Jay Watson, the California/Nevada director for the national Wilderness Society, a conservation and public policy organization. "But at the same time, it brings with it considerable responsibility. I think it's increasing the amount of territory where fires and other natural forces come in contact with civilization."

Yet for many, it's a level of responsibility and a price worth paying. Several years ago, William Cronon, a professor in history, geography and environmental studies at the University of Wisconsin, edited a collection titled, *Uncommon Ground, Rethinking the Human Place in Nature.* In his introduction, Cronon writes of surveying houses destroyed in the 1993 Laguna Canyon fire. "And yet even while standing in the ashes with scenes of devastation in all directions, one can easily see why people build here anyway. The views from these plains are breathtaking. The sight of such a landscape each time you step out your front door is a reminder of what it means to be alive — even if that reminder ultimately kills you."

Perhaps we are increasingly willing to take such risks because the alternative risks of urban life seem more malevolent. A home in the wilderness appears to provide an aura of serenity. With the wind rustling the trees and the birds chirping, it's hard to believe you're in any danger.

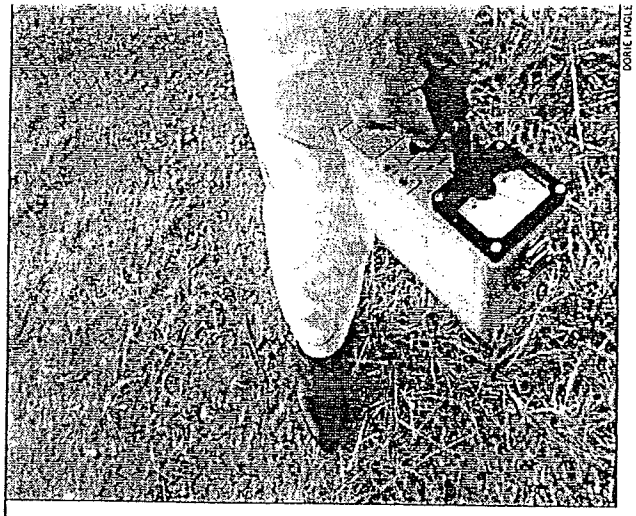
**Danger has certainly been imminent** for Los Alamos over the last week. Hundreds of people lost their homes and everything within them — a level of tragedy that provokes a profound sense of empathy. Our homes are supposed to be as safe as our bodies: autonomous, inviolate.

The devastation is compounded by the presence in Los Alamos of the national laboratory. For critics of the lab, and average citizens, concern over the fire's threat to the lab, and thus the health impact of potential radioactive release, spread nearly as fast as the flames.

*continued on page 22*

THE THREAT TO LANL LAST WEEK CAUSED CONCERN AMONG LOCALS.

RANDY THIEBEN



DOBIE HALL

DEPARTMENT OF ENERGY OFFICIALS WENT OUT WITH GEIGER COUNTERS TO CHECK FOR RADIOACTIVITY.

## LIVING IN THE WILDERNESS

*continued from page 17*

On the morning of May 12, Greg Mello, the director of Los Alamos Study Group, a lab watchdog organization, was receiving about one telephone call per minute. The majority were from citizens wanting independent assurance, or warning, about releases from the lab. (Most of the other calls seemed to be from the media).

"People are really hungry for reliable information," he said. "They're not hysterical. They just want to be prudent. The information coming out is being managed, as if this was a military campaign, and I think that the public is concerned that it's being treated as if it was a matter of national security."

Mello and two other study-group supporters, as well as this reporter, flew over the fire later that morning, so Mello could see what portions of the lab were on fire, and to take Geiger readings of the air, all of which appeared to be in normal range.

But even assuming that the public is not currently at risk from the Cerro Grande fire's proximity to the lab's site, for Mello the situation illuminates a crucial problem with LANL.

"Los Alamos pretends to be the source of our national security," Mello said. "In reality, Los Alamos could not even protect itself from a predictable natural event. The fire has burned up the myth of Los Alamos as a source of security. Los Alamos is more a source of danger."

Just as the devastation nuclear weapons have caused forces us to think about the flaws of hubris in science, the enormity of this fire is cause for humility. And it makes us realize just how fragile our civilization can be.

George Johnson is the author of *Fire in the Mind*, a book that discusses the relationship between the scientific culture of northern New Mexico within the context of its traditional cultures and natural landscape. "It's interesting this was in this nuclear city with all this advanced research on the cutting edge of theoretical physics, yet despite all this knowledge being gained, the place still came close to being destroyed by this regular fire," Johnson said. "Something like this reminds you that nature is very destructive and uncontrollable and beyond our puny attempts to control and impose order on. As impressive as our development of scientific understanding is, there's still so much we don't know, so much that's beyond our comprehension. One day our civilization might just be another ruin among those of the Anasazi."

# Runoff Poses Possible Danger

5/18/00

By Ian Hoffman
*Journal Staff Writer*

Disastrous as the Cerro Grande Fire has been for Los Alamos and its federal nuclear-weapons lab, scientists say things could get uglier.

Envision floods and tons of cinder-speckled mud washing out of the charcoaled Jemez Mountains into Los Alamos' burned neighborhoods and the lab's canyons.

The gushing floodwaters scour the burned EF and PHERMEX sites at the lab's Technical Area 15, both littered by pieces of chemical high explosive, toxic metals and radioactive elements. Any PCBs the fire did not convert to airborne dioxin, the runoff rinses out of a canyon behind the lab's power plant. Back at Technical Area 16, the waters carry away high explosives from an old explosives machining building and Material Disposal Area P, an explosives and toxic metals dump.

The floods blast through the most burned and contaminated canyons — Los Alamos, Pueblo and Water — picking up dozens of contaminants mixed in soils no longer anchored by plants. They flush into the Rio Grande and Cochiti Reservoir.

How real is this scenario? Quite, lab officials say. The mountains and lands of Los Alamos are likely to assume new shapes, perhaps form the beginnings of new canyons. The largest canyons probably will create large new deltas of sand and rock in the Rio Grande.

"We're really looking at some catastrophic problems for the lab and the county coming off national forest

*See* **RUNOFF** *on* **PAGE 3**

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# Runoff Could Pose More Danger

*from* **PAGE 1**

lands," said Dave McInroy, a LANL cleanup manager.

Beyond that, the uncertainties are huge.

No one has gauged with any confidence the mudslide danger to Los Alamos' western side. No one is sure what kinds and what levels of contaminants will leave the lab, but lab scientists believe they will and at rates much greater than those of the last decade, if not since the Manhattan Project. So far, LANL environmental officials say the canyon contaminants are so low in concentration and so likely to be diluted by water and eroded soil that they probably will not reach humans at dangerous levels.

But toxicologists know very little about the threat of exposure to multiple contaminants, especially for sensitive aquatic and amphibious wildlife. Sometimes, low-level toxins can be synergistic in effect. They can weaken different yet intertwined biological functions in ways that, for example, could increase vulnerability to illness.

"The problem is quantifying that," said Russ MacRae, an environmental contaminant specialist for the U.S. Fish and Wildlife Service in Albuquerque.

Much depends on what the U.S. Forest Service and Los Alamos National Laboratory do in the next few weeks. Both are mobilizing contractors and checking with dealers for rock for riprap, jute matting and native seed.

Scientists are flying over the burned forest and lab today. A plane specially equipped for spectral imaging also was to perform two days of passes, creating a detailed map of the land's reflection of light — an indicator of burn intensity and thus erosion potential.

The Dome Fire of 1996 and the Oso Complex Fire of 1998 produced spots of extraordinary erosion. Heavily burned lands lost soil at rates of 100 tons an acre or more. So far, people working the Cerro Grande Fire report seeing large, scattered splotches of intense burn on steep slopes. One lab official said he has heard post-fire runoff estimated at 100 to 200 times normal.

Experts for LANL, the state Environment Department and the federal Burned Area Emergency Rehabilitation, or BAER, team already are fanning out on foot to inspect the blackened territory. They will estimate erosion potential, then draw up a plan to shore up burned areas and protect the lab and town.

It is the first time such an interagency rehab team has ever dealt with a fire around and inside a nuclear site, especially one with a 57-year accumulation of contaminants.

Meanwhile, lab scientists are checking many of the lab's roughly 1,000 waste dumps or spills — potential release sites, or PRSs.

The fire itself has added a new slew of contaminants called polycyclic aromatic hydrocarbons, or PAHs, that result from incomplete burning. Some are innocuous, like those in a cup of coffee; others rank among the most carcinogenic substances.

Potential release sites featuring the worst combinations of potential for erosion and heavy contamination may have to be dug up or fortified by rock, mats or hay bales.

"We're going to make every effort we can to protest those," said McInroy, a scientist in charge of regulatory compliance for LANL's Environmental Restoration Project, which prepares sites for cleanup or stabilization.

Lab environmental restoration scientists are hunkered down in a Santa Fe office, poring over maps of waste sites and the burned territory. Project leader Julie Canepa has assigned them to list the 10 or 15 most threatening potential release sites and a plan of attack.

Water Canyon alone — heavily burned and draining several sites where scientists exploded various metals — contains traces of 11 radioactive elements from nuclear-weapons research, plus 95 man-made chemicals. They range from high explosives to insecticides and more than a dozen toxic metals.

Fortunately, few houses lie in the canyons that are both burned and contaminated. The greatest risk for human exposure is expected to be to hikers, mountain bikers and others trekking in the canyons.

"So we have low concentrations and low rates of use," said Lars Soholt, senior risk assessor for the restoration project's SWAT team. "Our preliminary assessment is the human risk, even under these changed conditions, hasn't changed. And we think the risk associated with the (contaminated) sediments is minimal."

To be certain will require intense ground inspections, tests of water and soils and computer simulations.

"It's going to take weeks to months to really clear up the picture," said Soholt.

The work is intense, and some of Canepa's SWAT team lost homes and possessions in the fire.

On Tuesday, "I had them go around the room and tell their stories," Canepa said. "There's a few people who are really affected, so I have to be careful with them. Then I have the Santa Fe people, who are saying 'Let me get back to work. I want to do something.' "

# Forest Fire Foretold '99 analysis warned of Los Alamos risks

Newsday 5/19/00

by **Earl Lane**
Washington Bureau

Los Alamos, N.M.-The fire starts southwest of Los Alamos National Laboratory, near the lab's border with the forested Bandelier National Monument. It overwhelms efforts by firefighters, jumping roads and crossing canyons until it sweeps into residential areas of Los Alamos four days after it begins.

Eventually, some 27,000 acres are burned, including 8,000 on the lab grounds.

That scenario, strikingly like the devastating wildfire raging for real in the Los Alamos area, was described last year in a 25-page section of a long environmental impact statement prepared for the laboratory. It describes a range of potential hazards from a site-wide wildfire, including exposure of contaminated earth previously protected by vegetation and lofting of some soils containing low levels of radioactivity.

The current fire, which continues to burn parts of the lab grounds, has consumed less than the acreage assumed for the lab in the January, 1999, wildfire analysis. Officials say it has not breached any major structures or storage areas for nuclear materials, explosives or radioactive wastes. They reinforced that point yesterday by allowing members of the media onto the lab grounds to view the facilities.

Although there were blackened areas along the roads and damage to a few temporary structures, key areas with nuclear materials showed no evidence of fire damage or even burned grass nearby. Lab firefighters concentrated on protecting such structures, officials said, while Forest Service crews and others fought the main fire.

Preliminary evidence suggests no unusual releases of radioactivity caused by the fire, officials said, although analysis of air samples from the lab's fixed-site monitors is not expected until mid-week.

"I have not had one report, not one observation that would lead me to a conclusion other than no releases," said Eugene Habiger, the Department of Energy's head of security and emergency response.

Lee McAtee, deputy division director for environmental matters at Los Alamos, did say air monitors have picked up some slight increases in radiation that he said are consistent with a release of naturally occurring radioactive elements in trees when they burn.

The lab's 1999 wildfire analysis talks about some potential fire consequences over the longer term, however. It has drawn close scrutiny from environmentalists, who say it reinforces their view that the current fire could have impacts yet to be detected or fully acknowledged by lab officials. The debate spotlights the amount of cleanup still to be accomplished at Los Alamos and other U.S. Department of Energy nuclear facilities after decades of no longer acceptable environmental practices.

"There are hundreds of contaminated sites" on lab property, said Greg Mello, director of the nonprofit Los Alamos Study Group, a local watchdog organization. He said he is particularly concerned about the fate of soils and vegetation contaminated with depleted uranium, a metal with low levels of radioactivity that was used extensively in tests of dummy warhead designs.

Mello said an estimated 250,000 pounds of depleted uranium had been dispersed through explosions on lab property over the years, a figure McAtee could not immediately confirm.

The wildfire analysis said that as trees and vegetation burn, "some fraction of the soil is entrained into the fire and transported and dispersed downwind." It also said wind can swirl surface soils after the fire and "has the potential of exposing workers returning to the area, as well as the transient public, until the situation has stabilized and vegetation has begun to recover." It

noted, however, that most of the contamination is not near roads.

The report estimates that some low-level radioactivity from contaminated soils would be lofted during a fire but said the doses would be minimal, from 0.18 to 0.21 millirems at 330 feet downwind from two of the lab's explosives firing sites. A millirem is a standard measure of radiation exposure, with natural background levels from rocks and cosmic rays typically about 300 millirems.

The analysis said "there is no ready evidence that burning of the vegetation over the firing sites would produce detectable airborne DU [depleted uranium]." It cites tests at the Jefferson Proving Ground in Madison, Ind., where depleted uranium from exploded projectiles is present in soils and the undergrowth is controlled with regular burning. In one study, monitors did not detect any airborne depleted uranium during burning.

State officials are working jointly with federal agencies to set up more monitors to watch the air quality of smoke from the Los Alamos fire. Pete Maggiore of the New Mexico Department of Environment said his agency also will pay close attention to soil stability and runoff at the lab in the wake of the fire.

Given past environmental practices, McAtee said he understands the concerns of lab critics. "I know there is a lot of distrust," he said. "We are going to do everything that we can to dispel that mistrust." He said the 1999 fire analysis dealt with worst-case scenarios and triggered changes, including recent thinning of timber near fire-vulnerable sites. "I'm convinced if we didn't do that, we'd be in far worse shape that we are today," McAtee said.

While the current fire was a result of a controlled burn at Bandelier National Monument that got out of hand, the lab's analysis of fire danger concluded that a major fire, natural or human-induced, "moving up to the edge of [lab property] is not only credible but likely." It said there was perhaps a 1 in 10 chance per year of such a fire, although it said the annual likelihood of a site-wide fire "is surely less."

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Paper: Deseret News, The (Salt Lake City, UT)
Title: N.M. fires ignite fears about nuclear wastes
Author: New York Times News Service
Date: May 20, 2000
Section: Wire
Page: A02

SANTA FE, N.M. -- The fires that consumed nearly 50,000 acres of northern New Mexico, including parts of the Los Alamos National Laboratory, have raised new concerns over the buildup of nuclear and hazardous waste stored at the laboratory.

State and federal officials have insisted that the fires, which were 70 percent under control by late Friday, did not get close enough to threaten thousands of containers filled with used gloves, rags, booties and other combustible items contaminated by low-level radioactive waste, like plutonium. By some estimates, the nearest flames remained half a mile away. But scientists and environmentalists said Friday that dry conditions in forests adjacent to the storage site make them ripe for another fire -- and a potentially more dangerous situation because of the increasing quantity of stored waste.

Typically, the laboratory generates 150 cubic meters of waste a year that is stored above ground in 55-gallon steel drums and in smaller wood boxes that sit under a fabric dome. The current level is 4,808 cubic meters -- the equivalent of 14,000 drums.

"The problem is just sitting there, just waiting for another incident to happen," said a Los Alamos scientist familiar with the storage area who spoke on the condition of anonymity. "And there are a lot of people at the lab who share that concern."

Greg Mello, director of the **Los Alamos Study Group**, a nuclear watchdog organization, said: "It's a dangerous situation. If they could get that stuff out of there, everyone would be better served."

Officials from the Energy Department and the laboratory have disputed the contention that anything at the storage site, a mesa surrounded by canyons known as Technical Area 54, is vulnerable to fire.

They cite an environmental-impact study of the laboratory conducted four years ago in which officials created a theoretical worst-case fire and found that the waste would survive unaffected.

But even if conditions became so grave that the drums overheated and exploded, sending toxic plumes skyward, the study concluded that no one living within a 50-mile radius would suffer ill effects.

Many scientists, however, contend that the department's worst-case test was not worst-case at all. While the department model assumed a breach of 62 drums, Edwin Lyman, scientific director of the Nuclear Control Institute, said an intense fire would more likely breach "closer to hundreds" of drums, causing a much greater potential for illness than the study provides."

"The department," Lyman said, "has refused to look at the real worst-case scenario."

Efforts are under way to remove the waste at Los Alamos to the Waste Isolation Pilot Plant outside Carlsbad, which opened last year after a decade of delays. For now, the rate of removal is but a trickle.

With cleanup at the Rocky Flats nuclear-weapons plant outside Denver, which is scheduled to close by 2006, and three other facilities producing nuclear waste for disposal, the competition for removal has grown intense.

For Los Alamos, the pace has been further slowed by lawsuits challenging environmental impact and a dispute between the state government, which requires that the contents of every container be itemized, and the Energy Department, which does not agree that detailed inventories are necessary.

Energy Department officials said Friday that Los Alamos shipped 714 drums of waste last year, with 252 scheduled to go this year, 1,176 next year, 2,940 in 2002 and increasing numbers in the following years.

While that leaves the majority of the drums on site for the foreseeable future, officials from the laboratory and the department insisted that the containers were well protected, largely because the recommendations of the environmental impact study were followed. To add layers of protection, wood was removed from the perimeter of the laboratory, the tree line was moved back and dirt pathways were built as a buffer against fires from the canyons below.

Still, critics are not convinced that enough safeguards are in place, especially with the unpredictable updrafts from the canyons, which the current fires demonstrated, and the ever-present possibility of sparks during an intense fire.

Rep. Tom Udall, a Democrat whose district includes the laboratory, said Friday that a recent tour of the laboratory convinced him that the fire "was too close for comfort," and that rebuilding efforts -- some older buildings were destroyed -- should emphasize greater protection against fire and other disasters.

Udall also said that the waste removal from Los Alamos was part of a larger national problem for which Congress has traditionally authorized only limited spending.

"On a national scale," he said, "this is not regarded as a high risk. But we need to get to the job of cleaning up all over the country."

The Los Alamos scientist who did not want to be identified added one further regret. He said he and his colleagues were eager to return to work next week when the laboratory reopens. But they were anxious, as well, he said.

"The lab is tucked away in what was some of the most beautiful scenery you've ever seen," he said. "Since the fire, it looks terrible, and you can't just go out there with a bucket of paint and fix it. That was slow-growth forest that burned. It will take a long time to come back to what it was."

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Title: Fire Renews Safety Concern Over Los Alamos Lab Waste
Author: MICHAEL JANOFSKY
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Fires that have consumed nearly 50,000 acres of northern New Mexico, including parts of Los Alamos National Laboratory site, raise new concerns about buildup of nuclear and hazardous waste stored at facility; government officials say fires, now 70 percent under control, did not get close enough to threaten thousands of containers filled with contaminated equipment, but scientists and environmentalists warn that dry conditions in nearby forests could create more dangerous situation; photo (M)The fires that consumed nearly 50,000 acres of northern New Mexico, including parts of the Los Alamos National Laboratory, have raised new concerns over the buildup of nuclear and hazardous waste stored at the laboratory.

State and federal officials have insisted that the fires, which were 70 percent under control by late today, did not get close enough to threaten thousands of containers filled with used gloves, rags, booties and other combustible items contaminated by low-level radioactive waste, like plutonium. By some estimates, the nearest flames remained half a mile away. But scientists and environmental advocates said today that dry conditions in forests adjacent to the storage site made the forests ripe for another fire, and a potentially more dangerous situation because of the increasing quantity of stored waste.

Typically, the laboratory generates 150 cubic meters of waste a year, which is stored above ground under a fabric dome in 55-gallon steel drums and smaller wooden boxes. About 4,808 cubic meters, the equivalent of 14,000 drums, is currently in storage.

"The problem is just sitting there, just waiting for another incident to happen," said a Los Alamos scientist familiar with the storage site. "And there are a lot of people at the lab who share that concern."

Greg Mello, director of the **Los Alamos Study Group**, a nuclear watchdog organization, said: "It's a dangerous situation. If they could get that stuff out of there, everyone would be better served."

Officials from the energy department and the laboratory have disputed the contention that anything at the storage site, a mesa surrounded by canyons known as Technical Area 54, is vulnerable to fire.

They cited an environmental study of the laboratory conducted four years ago in which officials created a theoretical worst-case fire and found that the waste would survive unaffected.

But even if conditions grew so grave that the drums overheated and exploded, sending toxic plumes skyward, the study concluded that no one living within a 50-mile radius would suffer ill effects.

Those views are not shared by many scientists, who contend that the department's worst-case test was not worst case at all. While the department model assumed a breach of 62 drums, Edwin Lyman, scientific director of the Nuclear Control Institute, a nonprofit research organization in Washington, said an intense fire would more likely breach "closer to hundreds" of drums, causing a much greater potential for illness than the study provides.

"The department," Dr. Lyman said, "has refused to look at the real worst-case scenario."

Efforts are under way to remove the waste at Los Alamos to the Waste Isolation Pilot Plant outside Carlsbad, N.M., which opened last year after a decade of delays. For now, the rate of removal is but a trickle.

With cleanup at the Rocky Flats nuclear weapons plant outside Denver, which is scheduled to close by 2006, and three other facilities producing nuclear waste for disposal, the competition for removal has grown intense.

For Los Alamos, the pace has been further delayed by lawsuits challenging the environmental impact of the disposal and a dispute between the state government, which requires that the contents of every container be itemized, and the Energy Department, which does not agree that detailed inventories are necessary.

Energy Department officials said today that Los Alamos shipped 714 drums of waste last year, with 252 scheduled to go this year, 1,176 next year, 2,940 in 2002 and increasing numbers in the following years.

While that leaves the majority of the drums on site for the foreseeable future, officials from the laboratory and the Energy Department insisted that the containers were well protected, largely as a result of following recommendations of the environmental impact study. To add layers of protection, dry timber was removed from the perimeter of the laboratory, the tree line was moved back and dirt pathways were built as a buffer against fires from the canyons below.

Still, critics are not convinced that enough safeguards are in place, especially with the unpredictable updrafts from the canyons, which the current fires demonstrated, and the ever present possibility of sparks during an intense fire.

Representative Tom Udall, a Democrat whose district includes the laboratory, said today that a recent tour of the laboratory convinced him that the fire "was too close for comfort," and that rebuilding efforts -- some older buildings were destroyed -- should emphasize greater protections against fires or other disasters.

Mr. Udall also said the waste removal from Los Alamos was part of a larger national problem for which Congress had traditionally authorized only limited spending.

"On a national scale," he said, "this is not regarded as a high risk. But we need to get to the job of cleaning up all over the country."

The Los Alamos scientist familiar with the storage site added one further regret. He said he and his colleagues were eager to return to work next week, when the laboratory reopened. But they were anxious as well, he said.

"The lab is tucked away in what was some of the most beautiful scenery you've ever seen," he said. "Since the fire, it looks terrible, and you can't just go out there with a bucket of paint and fix it. That was slow-growth forest that burned. It will take a long time to come back to what it was."

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