



# THE SANTA FE NEW MEXICAN

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Guerre



## Fouling the Nest

A New Mexican Special report on  
Los Alamos National Laboratory

## Soviets join in rejecting Iraqi plan

New Mexican Wire Services

WASHINGTON — The United States and the Soviet Union closed ranks Saturday as the Soviet leadership rejected Iraqi conditions for a pullout from Kuwait and President Bush expressed confidence that the Kremlin would not compromise in a new round of high-level diplomacy with Iraq.

As Iraqi Foreign Minister Tariq Aziz prepared to leave for talks with Soviet President Mikhail Gorbachev planned for Monday, Bush said he had received "very fresh" assurances that the Soviet leadership would stand firm against any departure from United Nations resolutions calling for the unconditional withdrawal of Iraqi forces from Kuwait. Gorbachev has been "very solid" and played a "constructive role," Bush told reporters in Kennebunkport, Maine, where the president is spending the weekend.

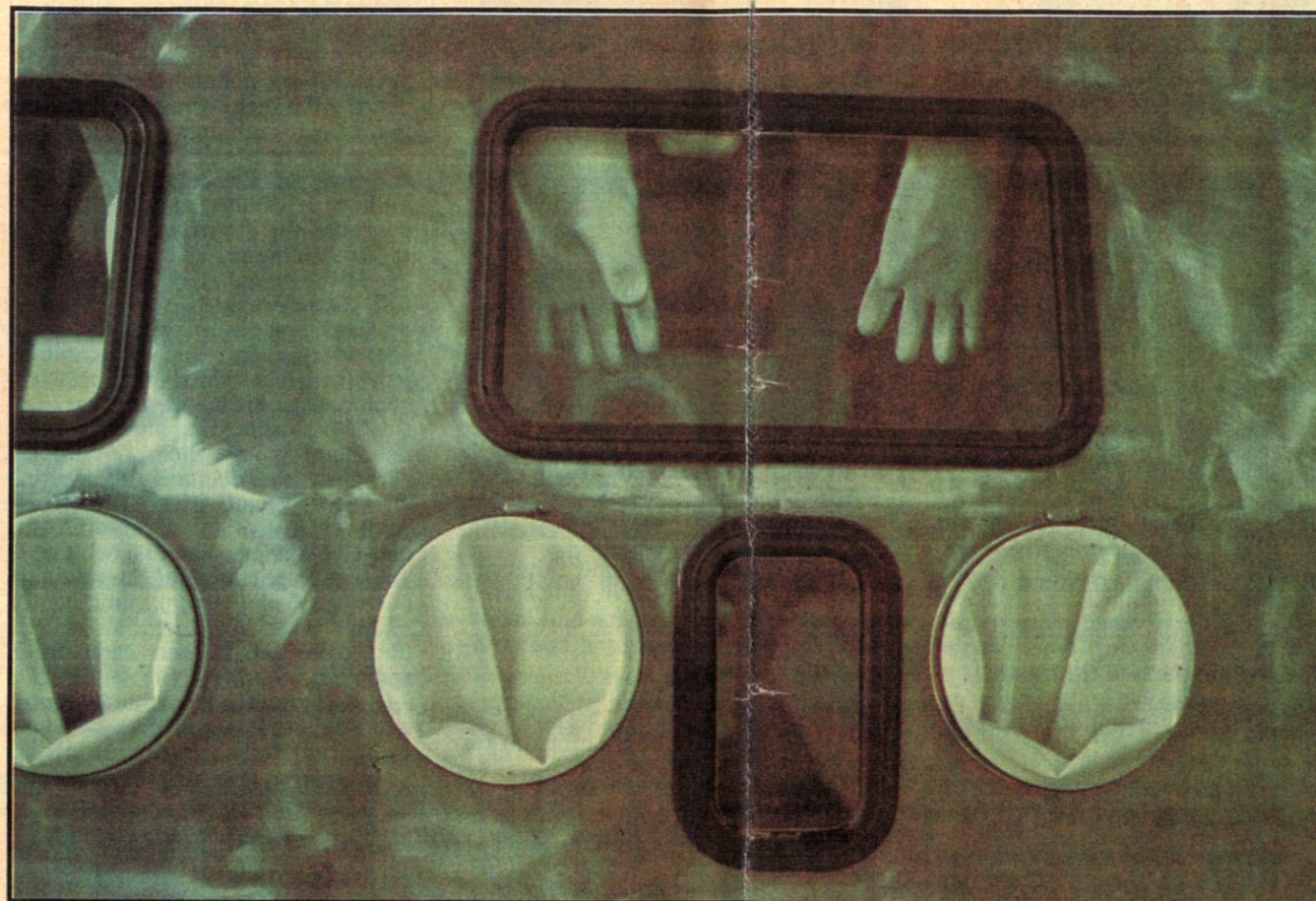
Soviet Foreign Ministry spokesman Vitaly Churkin told a news conference in Moscow that Iraq's statement Friday indicating a willingness to pull out of Kuwait under numerous conditions was

■ **WAR NEWS:** Stories, photos  
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not acceptable to the Soviet leadership, but might be an "initial step" toward a diplomatic solution. Churkin added that Soviet leaders would use the Aziz visit to explore Baghdad's intentions in greater detail.

Allied forces continued Saturday to prosecute the war from the air, flying another 2,600 combat sorties aimed at Iraqi armor, supply lines and communications facilities, U.S. military officials reported. Defense Secretary Richard B. Cheney said in a television interview that "we don't believe there's any room

Gloveboxes, right, where workers insert their hands into gloves attached to shielded boxes to do various tasks, are often the only barrier between humans and extremely hazardous materials such as plutonium and uranium. The boxes receive heavy use at Los Alamos National Laboratory, which eventually must dispose of them.



## The \$2 billion mess at LANL

Daunting task to clean up 48 years of neglect, accidents just beginning

By **THOM COLE**  
and **KELLY RICHMOND**  
The New Mexican

LOS ALAMOS — Los Alamos

### Plutonium processing



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# Daunting task to clean up 48 years of neglect, accidents just beginning

By **THOM COLE**  
and **KELLY RICHMOND**  
The New Mexican

LOS ALAMOS — Los Alamos National Laboratory has two monuments — one a tribute to its successes, the other a symbol of its failures.

The former, overlooking Ashley Pond in downtown Los Alamos, is a large gravestone-looking monument that proudly and publicly celebrates the laboratory's many scientific accomplishments, including development of the world's first atomic bomb.

The latter, strikingly less public, is a cluster of brass markers set among large ponderosa trees deep in Bayo Canyon just east of town at a former laboratory site contaminated with radioactive and chemical wastes. Each reads:

"Buried Radioactive Material. No Excavation prior to 2142 A.D."

The forested spot is only one of at least 1,857 sites that Los Alamos National Laboratory must investigate — and, possibly, clean up — as part of an environmental-restoration program expected to cost \$2 billion and take decades to complete.

Fact: The lab's work over the past 48 years has radioactively polluted everything from the town's main street, Trinity Drive, to the state's main river, the Rio Grande, and beyond.

Argument: Is there an immediate health threat? No, says the lab. Yes, say some environmentalists, among others.

Question: If it's not dangerous, why spend \$2 billion to clean up the fouled nest in and around Los Alamos and \$200 billion nationally on other weapons facilities?

The nearly 2,000 polluted sites are one legacy of the laboratory's five decades of work with a potpourri of the most dangerous radioactive and chemical substances known to humankind.

The often unwitting heirs to that legacy are the laboratory work force

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



**Closed area: Technical Area 55, surrounded by double rows of fencing and concertina wire, is bathed in light and patrolled by armed guards.**

## WHAT'S COMING

### Today: Overview and security

✓ Los Alamos National Laboratory officials deny the laboratory will take over plutonium processing from the closed Rocky Flats weapons plant, but the lab already has been doing similar work.

✓ The laboratory's security force is undertrained, underpaid and overworked; the scientists don't take security seriously; and laboratory management fails to supply the necessary money and support, critics say.

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✓ A security guard says financial concerns caused the laboratory to cancel some steps that would have strengthened security after Saddam Hussein invaded Kuwait in August.

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### Monday: Cleanup

✓ Take a hike in a Los Alamos-area canyon and you're likely to cross a burial site for radioactive or hazardous waste. More than 1,800 sites — including some in downtown Los Alamos — must be inspected as part of a \$2 billion cleanup program.

### Tuesday: Public safety

✓ Each day Los Alamos National Laboratory releases radioactivity into the environment. Officials say the amounts are small and the public health risk is slight. But there is a risk, primarily from the laboratory's radioactive air emissions.

### Wednesday: Worker safety

✓ Los Alamos laboratory doesn't do enough to protect its workers from exposure to radiation, critics say. Laboratory officials disagree and point to daily monitoring of employees.

### Thursday: Hot spots

✓ The laboratory's Omega West nuclear research reactor was criticized by a Department of Energy inspection team, which found dozens of safety problems. A laboratory official said the inspectors were nitpickers.

### Friday: Oversight

✓ The new culture of openness touted by Energy Department Secretary James D. Watkins has been slow in developing at the laboratory, critics say.

# Plutonium processing a large part of operation

When the U.S. Department of Energy's troubled Rocky Flats plant in Colorado shut down in December 1989, some northern New Mexico environmentalists expressed fears that the plant's plutonium-processing operations would be shifted to Los Alamos National Laboratory.

Their worries were real — but years too late.

Some Rocky Flats plutonium processing already had been taken on by LANL long before that.

That has stopped, but it likely will begin again if and when Rocky Flats resumes making the triggers that set off nuclear bombs. Those triggers will be made, in part, with plutonium from LANL.

Citing LANL's role as a research and development facility, Energy Department and lab officials repeatedly have said Los Alamos would not take over Rocky Flats' production role of processing plutonium for use in nuclear weapons.

"I have no such plans and have no intention to even consider it," Department of Energy Secretary James D. Watkins said during a trip last year to LANL.

Watkins and other officials failed to note in those denials, however, that LANL for several years has had its own large-scale plutonium-processing operation.

Los Alamos officials say the lab assumed the production role because of system troubles at Rocky Flats and problems at other Energy Department plutonium-processing plants. They insist LANL only does

Please see **PLUTONIUM**, Page A-3

armed forces continued Saturday to prosecute the war from the air, flying another 2,600 combat sorties aimed at Iraqi armor, supply lines and communications facilities, U.S. military officials reported. Defense Secretary Richard B. Cheney said in a television interview that "we don't believe there's any room here for any pause, any cease-fire, or anything other than complete, total, unconditional compliance with the U.N. resolutions." Cheney said any such pause would give Iraqi President Saddam Hussein "time to repair some of the damage, to redeploy his forces" and that this could cost American lives.

U.S. Army Apache AH-64 attack helicopters, artillery and multiple-launcher rocket systems joined in a combined nighttime attack on Iraqi forces. It was the first time Apache helicopters have been used in such operations and represented some of the tactics expected in a ground offensive, if one becomes necessary.

At the United Nations, Iraq's envoy told the Security Council on Saturday that if massive, high-altitude bombing of his country continues, the Baghdad government would be justified in using chemical weapons.

"We consider use of mass destructive weapons against Iraq would justify Iraq to use, unfortunately, mass destructive weapons," Abdul Amir al-Anbari told reporters when asked whether Iraq might use chemical arms.

Al-Anbari also suggested, but did not say directly, that Iraq's call for Israel to leave the occupied territories might not be a fixed demand linked to any Iraqi pullout from Kuwait.

A senior Pentagon official said on Saturday that Iraq deliberately damaged a mosque in the port city of Basra last week to make it appear that the American military had bombed it.

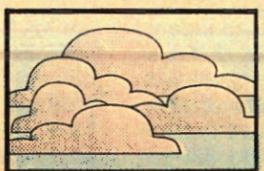
The official, who spoke on the condition of anonymity, said a bomb from an allied aircraft had landed near the mosque, but that photographic evidence taken at that time showed that the bomb did not hit the building or do any damage to it.

Photographs taken within the next 24 to 36 hours, however, showed that the building was damaged and its dome was gone, the official said.

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### The West's Oldest Newspaper



## Weather

Mostly cloudy with a chance of showers. Snow

## In the news

### Bomb kills 15:

Drug cartel members were blamed for an explosion outside of a Colombia bull ring.

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### Legislative mill:

State law makers filed 1,560 bills by the filing deadline.

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# Four quit Chamber Festival board

The New Mexican

Four members of the Santa Fe Chamber Music Festival board resigned Saturday and walked out of a board meeting, citing what they said was Director Sheldon Rich's failure to comply with an earlier directive to limit his financial authority.

A source with extensive knowledge of the Santa Fe arts community said that others on the 35-member board may

One of the board members who resigned, Lanham Deal, directed questions to board Chairman Michael O'Shaugnessy, who also resigned. Neither O'Shaugnessy nor the other members who resigned, board Secretary Terry Melia and Phillip Naumburg, could be reached for comment Saturday.

The four believe that Rich has "ignored or not taken seriously... what they felt were necessary (budget) controls" that the board imposed late last

and to approve checks of more than \$1,000.

Rich retained his title of president. In January, O'Shaugnessy said the festival was facing a deficit of about \$155,000 and had bank debts of \$289,000.

Rich reportedly told the board Saturday that the deficits would be covered by his mother-in-law, Rosa Schachter. Her daughter, Rich's wife, Alicia Schachter, is festival artistic director.



## Fouling the Nest

A New Mexican Special Report on Los Alamos National Laboratory

# LAB: Just to study how to clean sites could take years

Continued from Page A-1

and the public, both of which have been and still are exposed to those substances.

For three months, *The New Mexican* has been investigating the impact of Los Alamos National Laboratory on the environment and the health and safety of those laboratory employees and the public.

Thousands of documents were examined, more than a hundred interviews were conducted and some consultants were retained by the newspaper. For six days beginning today, the results of that investigation will be detailed in more than 30 stories.

The highlights of those stories:

■ The list of sites to be evaluated for contamination by the laboratory includes most of the major canyons and mesa tops in the area, the golf course and ballfields, the airport, the main street through town, and 16 major dumps.

One of the largest concentrations of radioactive waste at LANL consists of about 385 pounds of uranium and 88 pounds of plutonium that are in shafts once used for test explosions. A typical nuclear bomb requires only nine pounds of plutonium, according to one national defense organization.

To put those amounts into perspective: An environmental activist says a speck of plutonium 1/1,000 the size of a grain of salt, if inhaled, would create a 50 percent chance of cancer.

The laboratory also apparently has buried highly radioactive spent fuel from nuclear reactors.

There is no evidence that any radioactivity from any source has reached ground-water supplies, although small amounts have been washed into the Rio Grande by rain and snow runoff.

■ The cleanup of the laboratory is a dangerous business for workers, and the U.S. Department of Energy, owner of LANL, has been accused repeatedly of not paying enough attention to employee safety in cleanup programs.

Worse, a congressional study released last week said the Energy Department has not assessed realistically the magnitude and cost of the cleanup at the nation's nuclear weapons labs and, in the words of one federal official, the agency "has neither the capability or credibility" for the task.



Courtesy Los Alamos National Laboratory

### Working inside a glove box

environmental-surveillance data show the threat to public health is slight or nonexistent.

But...

One study found a possible excess of deaths in the community from leukemia and other disorders, and a second study found Los Alamos residents generally had more plutonium in their bodies than people living in other parts of the country.

■ LANL each year emits hundreds of different air pollutants, dumps millions of gallons of contaminated

**LANL each year emits hundreds of different air pollutants ... and buries enough solid waste to fill 20,000 refrigerators.**

water and buries enough solid waste to fill 20,000 refrigerators.

In the early days of laboratory operations, handling solid waste was easy: You dug a pit, tossed in the

radioactivity.

■ Hundreds of radioactive and otherwise hazardous truck and air shipments move in and out of LANL each year, posing a threat to the public along the routes.

The shipments include nuclear weapons parts trucked in top-secret, unmarked tractor-trailers and spent fuel from the laboratory's research reactor.

There have been accidents, including the overturning in Colorado of a tractor-trailer carrying plutonium to LANL.

Also, federal investigators have found faults in the packaging and transportation program at the laboratory and in the Department of Energy's hauling program for the nuclear materials.

LANL and the Energy Department say they have moved to correct the problems.

■ In addition to the routine threat of radiation exposure, some LANL workers have been contaminated on the skin by radioactive materials and been contaminated internally by inhaling or otherwise ingesting particles.

Federal investigators repeatedly have criticized the laboratory for inadequate radiation-protection programs, and some workers say they have been subjected to retaliation

■ In the early 1980s, one worker at the Chemistry and Metallurgy Research Building (CMR) spread radioactive contamination outside the laboratory complex, and a second worker injected a plutonium solution into his locker in a dispute with other employees.

The incidents were possible because workers are given the responsibility of monitoring themselves for radiation when leaving their laboratories; no one checks to make certain that they do. Several years later, that self-monitoring program still is in place.

Laboratory officials say they see no need for health workers to supervise the monitoring of employees in the CMR Building.

The building is the largest at LANL and one of its oldest. About \$10 million is budgeted this year to upgrade the structure. Numerous safety concerns related to its age have been raised.

■ Some workers say they have developed supersensitivity to some chemicals, such as perfume and car exhaust, because of their exposure to chemicals at the laboratory.

LANL — like the medical establishment as a whole — doesn't recognize the diagnosis of multiple chemical sensitivities, saying the workers' physical problems are caused by psychological troubles.

■ The Department of Energy in the past year has given up much control of its worker health studies and the data collected on their exposure to radiation.

The complete department control over the studies and data had been compared to having the tobacco

**Some studies of LANL employees and other nuclear weapons workers have found excess cancers, possibly caused by radiation exposure.**

industry in charge of lung cancer research.

The release of the data on the exposure of nuclear weapons workers could help end the debate over whether low doses of radiation are

concerned that plutonium could cause lung cancer in weapons workers.

LANL officials said they were unaware of any study showing cigarette smokers were at an increased risk for lung cancer because of work with plutonium, but there has been at least one study reported that effect.

■ A Department of Energy team of inspectors found dozens of safety problems with LANL's Omega West nuclear research reactor.

The inspectors said there was no immediate health threat but the potential for an accident was increasing. A laboratory official downplayed the criticism, saying the inspectors were nitpickers.

■ The Los Alamos Critical Experiments Facility was closed in November 1989 because of safety questions, and has not been reopened.

The facility is the only place in the country where vital experiments and training can take place on how to avoid a criticality accident with nuclear materials. In a criticality accident, a nuclear chain reaction is triggered and large amounts of radiation released.

■ Only in recent years has the laboratory become subject to some environmental laws. Still, it is exempt from other environmental laws and occupational safety agency rules because the presumed need for secrecy permits LANL and its owner, the Energy Department, to be their own health cops.

The state Environmental Improvement Division is the main enforcer, but its power doesn't extend to some pollutants and its enforcement abilities are so limited that, for example, it cannot levy fines directly against the lab's federal owner.

The environment division also faces a high turnover of workers, including those wooed away by the promise of higher salaries offered by LANL or its contractors.

The laboratory last year paid \$30,000 to the state to settle \$1.1 million in possible fines.

■ James D. Watkins promised a new culture of openness when he took over the Department of Energy two years ago, but critics said that culture is slow in developing.

Energy Department headquarters in Washington insisted this year on pre-publication review of LANL's

**Edward Flattau**

Global horizons

**Companies pro-ecology policy mean good business**

Environmentalism is cropping up in the most unexpected places.

During the past few months, I've been bombarded by a bewildering barrage of announcements from public relations firms promoting the environmental benefits of every kind of imaginable.

One can't help but be somewhat skeptical of the ecological claims made of so many goods and services that normally wouldn't be associated with environmental concerns, and which haven't been perceived as abatement instruments.

It's almost as if every entrepreneur and manufacturer decided that operations could not be successful without an environmental connection.

Let me give you a sampling of what have been receiving in the mail.

■ The Keyes Fibre Company has a packet describing how its molasses paper products used primarily in food service and packaging industries were ideal for compost piles. The matter of weeks after disposal at landfills, the company brags, the trays, containers and other decomposed and biodegraded like humus. The materials could be incinerated cleanly because of the absence of coating, or so it was claimed.

■ Manufacturers of Arm and Baking Soda outlined how applications of their product were effective in reducing lead contamination in drinking water, eliminating odors from smokestack emissions, and moving paint without using toxic solvents.

■ An unsolicited box of paper towels arrived at my office, courtesy of Ashdon Industries. According to the company, the paper towels were "compressed" to maximize efficiency. Each roll was said to contain between 67 percent and 220 percent more sheets than other leading

LANL says it is developing technology to aid in the cleanup and aggressively is reducing one environmental threat — electrical equipment containing cancer-causing polychlorinated biphenyls, better known as PCBs.

Each day the residents of Los Alamos come into contact with radioactivity released into the environment by the laboratory.

Most of the exposure is direct from air emissions, but contamination also can come from eating garden produce or by just taking a hike in one of the area's many canyons.

LANL's experts say their own

## OUR PROJECT TEAM

Thom Cole, 36, is the special projects reporter for *The New Mexican*. He joined the newspaper in July 1989 after more than seven years with United Press International in Pennsylvania, West Virginia and Ohio. His last position was chief of UPI's state capital bureau in Harrisburg, Pa. He also worked for several newspapers in Ohio and was graduated from Ohio State University.



Kelly Richmond, 26, grew up in Los Alamos. A graduate of the University of New Mexico, Richmond worked for several small newspapers before joining the staff of *The New Mexican* in 1988. He regularly reports on Santa Fe city government.



Photographer Kitty Leaken, 32, has worked for *The New Mexican* for about five years, first as a free-lancer and then on staff. She is a graduate of Stanford University in California, where she majored in history. She was born and raised overseas.



Terry D. England, 41, has worked as a copy editor for *The New Mexican* since 1982. He received his undergraduate degree in journalism in 1976 from the University of New Mexico and holds a master's degree from St. John's College in Santa Fe. England has worked for newspapers in Tucumcari and Los Alamos, New Mexico, and Amarillo, Texas. He was born in Los Alamos and grew up there and in Santa Fe.



grams, and some workers say they have been subjected to retaliation when they raised safety concerns.

Deaths caused by radiation exposure are hard to identify because of the normal occurrence of cancer in workers, but such deaths are occurring.

Medical researchers at LANL last year found what is believed to be the first identified death of a laboratory worker caused by radiation exposure decades ago.

Also, the bone cancer death last year of a man who was a military worker at the laboratory during World War II has been linked to his exposure to plutonium at the facility.

## GLOSSARY

What we are talking about:

■ **ALARA policy** — Policy of keeping worker exposure to radiation "as low as reasonably achievable."

■ **Alpha radiation** — Particles that emit radiation that cannot penetrate the skin. However, alpha-emitting elements such as plutonium and uranium can be fatal if inhaled or otherwise ingested.

■ **Background radiation** — Radiation in the environment that occurs from natural sources, such as the sun, elements found naturally in the soil and radon gas and from nuclear weapons tests and atomic power plants.

■ **Beta radiation** — Consists of particles that emit radiation that can penetrate the skin but can be reduced or stopped by aluminum, glass, plastic or wood.

■ **Corrective activities** — Official name for the work needed to bring nuclear weapons facilities into compliance with environmental regulations and agreements.

■ **Curie** — Measure of the amount of radioactivity.

■ **Environmental restoration** — Official name for the cleanup actions needed at nuclear weapons facilities to deal with contamination from radioactive, hazardous and mixed wastes.

■ **Epidemiology** — Branch of medicine that investigates the causes and control of major health problems in populations.

■ **Gamma radiation** — Does not consist of particles but of waves of energy that can pass through the human body. Three feet of concrete or two inches of lead are required to stop 90 percent of typical gamma radiation.

■ **Half-life** — The time required for a radioactive substance to lose half its activity. As a rule of thumb, 10 half-lives are required for a substance to decay to safe levels.

■ **Hazardous waste** — Official term for chemically hazardous waste. Also used as a generic term to describe any dangerous wastes, including radioactive and chemical.

■ **High-level radioactive waste** — The U.S. Department of Energy defines it as the waste produced in the reprocessing, or recycling, of spent fuel rods

from nuclear reactors. The Nuclear Regulatory Commission includes the spent fuel rods in its definition.

■ **Ionizing radiation** — Alpha, beta and gamma radiation. Named because it can knock electrons off the atoms it meets, creating atoms called ions. It causes cell damage in humans.

■ **Low-level radioactive waste** — Generally, waste that contains small amounts of radioactivity dispersed in a large amount of material. However, some can be highly radioactive.

■ **Multiple chemical sensitivities** — The controversial diagnosis that a person can become supersensitive to chemicals because of past exposure to chemicals.

■ **Mixed waste** — Radioactive waste that also contains chemically hazardous materials.

■ **Polychlorinated biphenyls, or PCBs** — A cancer-causing substance once widely used as a liquid insulator in electrical equipment.

■ **Plutonium processing** — A generic term for the production of plutonium in nuclear reactors, the recovery of plutonium from plutonium-contaminated waste and the recycling of plutonium used in retired nuclear weapons.

■ **Plutonium reprocessing** — The term used to describe the production of plutonium in nuclear reactors.

■ **Rem** — A widely used unit to measure doses of radioactivity received by humans. A millirem is 1/1000th of a rem.

■ **Safe secure trailer** — The trailers used by the Department of Energy to transport nuclear weapons parts and special nuclear materials, such as plutonium metal.

■ **Technical Area 55, or TA-55** — The complex at Los Alamos National Laboratory where plutonium is processed and fabricated into nuclear weapons for research and testing.

■ **Transuranic, or TRU, waste** — Contains man-made elements heavier than uranium, such as plutonium. TRU waste decays slower than low-level radioactive waste.

■ **Waste Isolation Pilot Plant, WIPP** — An underground repository near Carlsbad for transuranic waste.

ers could help end the debate over whether low doses of radiation can cause cancer and other health problems.

Some studies of LANL employees and other nuclear weapons workers have found excess cancers, possibly caused by radiation exposure, but those studies are considered inconclusive.

LANL for years, and possibly decades, gave free cigarettes to plutonium workers.

The practice ended in about 1987, more than 20 years after the first surgeon general's report on the dangers of smoking and more than 40 years after scientists first became

pre-publication review of LANL's environmental-surveillance data for 1989. The report still has not been released to the public and when it is, some data will be more than two years old.

LANL officials repeatedly have told employees of the need to comply with all environmental and safety rules, but the officials don't hide their dislike for some of the regulations.

The laboratory is spending about \$60 million to prepare for a Department of Energy inspection later this year of health, safety and environmental programs.

# Report: DOE unqualified to clean its own houses

By KATIE HICKOX  
New Mexican Washington Bureau

WASHINGTON — The Department of Energy has neither the information nor the qualified staff to clean up nuclear weapons facilities like Los Alamos National Laboratory, according to a recent federal report.

And the Energy Department virtually has ignored worker safety and public health issues in developing its 30-year decontamination plan for soil and ground water at the 13 weapons sites, says the report from the Office of Technology Assessment, a congressional watchdog agency.

The Energy Department's "stated goal — to clean up all weapons sites within 30 years — is unfounded because it is not based on meaningful estimates of work to be done, the level of cleanup to be accomplished or the availability of technologies to achieve certain clean-up levels," the report says. "Neither [the Energy Department] nor any other agency has been able to prepare reliable cost estimates for the total cleanup."

The Department of Energy says the findings of the Office of Technology Assessment are identical to those outlined in an agency report issued last October.

"The [Office of Technology Assessment] report adds independent confirmation of the fact that this is a problem of enormous proportions and will require yet unavailable technology and trained personnel to resolve it," Energy Secretary James Watkins said in a written statement.

Watkins has complained in the past that federal laws prevent him from hiring qualified personnel at competitive salaries for cleanup operations. A law backed by Sen. Jeff Bingaman, D-N.M., that goes into effect this year allows Energy Department defense program chiefs to tap into retired military personnel and other former government employees with

scientific expertise by waiving penalties against repeated federal service.

First opened in 1943, Los Alamos National Laboratory has not performed a sitewide assessment of dangers on its own grounds, the study said. Los Alamos has investigated environmental and worker health dangers at a few individual facilities within its boundaries, the report noted.

The lab might have several areas containing contaminated sediment because of Cold War-era discharge practices, which simply released tainted waste water into nearby canyons, the study said.

The Environmental Protection Agency, which has jurisdiction over hazardous waste issues at Department of Energy-owned facilities, has targeted 15 canyons in and around Los Alamos for evaluation, the study noted. Far below the topsoil at Los Alamos National Laboratory, earth located underneath a site where waste units were once stored also could be contaminated.

Substances released into the soil at Los Alamos National Laboratory in the past include americium, several grades of cesium and plutonium, tritium and uranium, the study said.

The lab also has released some metals, chemicals, and explosives such as TNT into the soil, the study noted. Cesium, several grades of plutonium, tritium, and uranium have been found in unused ground water on the site, the study said.

The Office of Technology Assessment garnered information of the past lab's toxic and radioactive emissions from internal lab safety bulletins and Energy Department audits dated 1988 through last year. The study recommended the Energy Department relinquish responsibility for weapons complex cleanup to congressional overseers and other federal agencies.

more sheets than other lead "If all paper towels we compressed," declared Adent Gregory Phillips, "at trees and 550,000 gallons could be saved a year in the process."

As an added bonus, spokesman asserted, the towels were comprised of recycled fiber.

A Philadelphia environmental firm — Manko, Gold and sent me their information establish an office recycling. It would certainly work with paper shuffling warrens of capital.

I even received notice of environmentally-friendly s conditioners sold under the "bio pure." The manufacturer hair care products proclaimed that they contained no toxic dyes, and the ingredients the most part biodegradable were used in testing, paperboard instead of plastic material of choice for packaging.

The sports industry has into the act. A press recently delivered nationwide recycling program tennis ball containers. Organizational Association for Tainer Recovery and the V

ing Goods Company, the commence with plastic tubing being collected at specialty country clubs and major to

Finally, there is even an ally-friendly hotel seeking light. The Embassy Suites Beach Shores, Fla. has opened in mid January, is release touting its effort seasonal nesting habitat. According to the statement, \$200,000 was spent on windows and thereby deflected glare that might otherwise turtles congregating on the ing the hotel. Also, an elevated boardwalk over the dunes constructed to give guests a ocean without disturbing nesting grounds.

What will be next? A pipe exhaust that purifies the I really don't mean the explosive environmental trend. Sure, disingenuous have been and will continue on occasion.

Environmentalists' dispirability guarantees certain products have already the headlines. Nonetheless, business's mad scramble respectability is a positive because it both reflects and the fast-growing societal pervasive environmental no longer be denied.

Edward Flattau is a columnist who writes on these issues.



## PLUTONIUM: Dangerous metal is everywhere at the lab

Continued from Page A-1

the production work because of its research and development benefits.

"The product that comes out of here is technology. It is not some kilograms (of plutonium) sent to

**'The Committee believes that the plutonium processing capabilities and expertise it saw at TA-55 are a significant but under-utilized asset ...'**

Ahearn committee  
1990 report

Rocky Flats," said Dana Christensen, deputy leader of the nuclear materials technology division.

### Processing at TA-55

The plutonium-processing unit is located at Technical Area 55 at the lab. Opened in 1978, TA-55 has a work force of about 550. The facility made it possible for LANL to process large amounts of plutonium.

To understand what has gone on at Los Alamos, some background on plutonium and plutonium production is needed.

Plutonium is a metal that is fabricated into "pits," or triggers, for nuclear weapons.

The plutonium for weapons comes from three sources: nuclear reactors; retired nuclear weapons that are recycled; and the wastes of weapons production, such as shavings of plutonium and contaminated equipment.

The Energy Department since 1988 has not produced plutonium in reactors for three reasons: a large stockpile of plutonium; the ability to recover it from retired weapons and waste at a cost cheaper than making it in reactors; and safety concerns about the federal reactors at Richland, Wash., and Savannah, S.C.

Before that time, however, Los Alamos' TA-55 temporarily helped process plutonium produced in the reactors.

TA-55 also has recovered plutonium from the wastes of weapons production and processed that plutonium. Prior to its shutdown in 1989,

amount continually has declined since 1986. The Department of Energy also doesn't release figures on plutonium production.

### Production amounts

Oddly, in the face of such reluctance, the amount was published in the lab's annual report at least once.

The 1981 annual report shows TA-55 processed about 3,300 pounds of plutonium that year, enough metal to make 370 bombs. By comparison, the nation's entire weapons complex produced about 5,500 pounds of plutonium in 1984, according to the *Nuclear Weapons Databook*, which is published by an environmental group, the Natural Resources Defense Council.

Generally, the plutonium processed by the lab either is used by LANL to fabricate triggers for its test and research weapons or shipped to Rocky Flats for use in weapons for deployment.

Los Alamos officials say no plutonium is now being shipped to Rocky Flats because of the latter's shutdown. The Colorado plant was the Energy Department's only production facility for triggers. Los Alamos officials also say no plutonium is being stockpiled for future shipment to Rocky Flats. However, Los Alamos would resume shipments to Rocky Flats once it's reopened.

LANL officials say the lab makes fewer than 20 nuclear weapons a year for research and detonation at the Nevada Test Site.

Because of the shutdown of Rocky Flats, the lab has taken over a role normally performed by Rocky Flats in the production of LANL's research and test weapons, officials say.

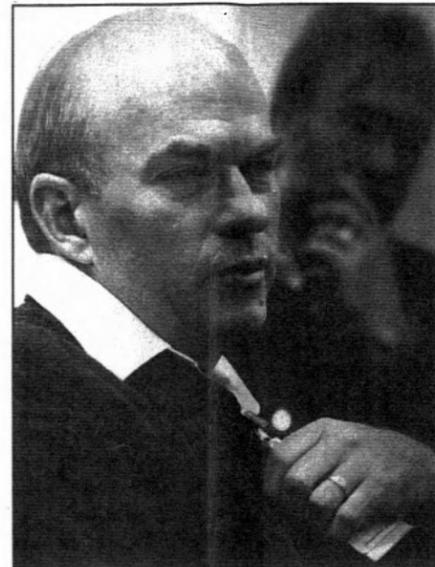
Again, because of national security reasons, Los Alamos officials refuse to detail that role.

The lab's 1991-96 institutional plan describes it this way:

"The recent suspension of operations at Rocky Flats to allow the site to address operational concerns has created uncertainty over the availability of components needed to support the nuclear weapons test program in Nevada. Los Alamos has taken steps to assure that the components needed by the national test program are available by implementing an upgrade of its component fabrication capabilities."

### Safety concerns

Environmentalists are concerned about a Los Alamos takeover of



DELBERT HARBUR  
Nuclear technology chief

duct work at the plant and high air emissions of plutonium, one of the most dangerous elements known.

"We don't want that going on here," said Santa Fe's Michelle Mero-la, executive director of Concerned Citizens for Nuclear Safety, an anti-nuke activist group.

Delbert Harbur, leader of LANL's nuclear materials technology division, said the plutonium-processing operations at Los Alamos have had no impact on the public.

Harbur, however, said the operations have increased the number of workers exposed to radiation, the amount of radioactive waste produced by LANL and shipments in and out of the lab of nuclear materials.

A 1987 Energy Department appraisal of TA-55 also noted the side effects of plutonium-processing at Los Alamos.

TA-55 "was not planned to be a plutonium production facility. However, primarily due to difficulties encountered at other Defense Program sites, it has been necessary to utilize the facility in a semi-production mode. This change in operational mode resulted in a greater plant population and greater plutonium throughout, with obvious health and safety implications, [for example], a greater-than-anticipated [worker radiation] exposure at the facility. TA-55 management has taken a number of actions to minimize these problems."

Randy Booker, a researcher for the Natural Resources Defense Council,

Booker said. WIPP stands for the Waste Isolation Pilot Plant near Carlsbad, a dump for long-lived radioactively contaminated materials from federal weapons facilities.

Energy officials have announced plans to restart Rocky Flats — no date has been set — but they say the plant eventually will be closed for good once its operations are transferred elsewhere.

### Work transfer

The suspicions of environmentalists that at least some of Rocky Flats' plutonium-processing work would be transferred to LANL are based on a series of developments over the past few years.

Those developments include federal plans to transfer Rocky Flats' work to another place or places, favorable reports about LANL's plutonium-processing capabilities and a plan by Los Alamos to build a replacement support laboratory for TA-55.

At least three federal reports have pointed to Los Alamos as a possible new home for at least some of Rocky Flats' operations.

A 1988 report by Congress' General Accounting Office said Los Alamos had "existing [plutonium-processing] capabilities similar to those at Rocky Flats."

The National Research Council in a 1989 report referred to TA-55 as "exceptionally well run" and an "efficient and productive operation for scrap recovery." The report continued:

"This facility, operating for the most part on a one-shift, 5-day schedule, can process almost half as much plutonium as Rocky Flats can ... and turn out a purer product."

"If additional capacity beyond [the new plutonium-waste recovery plant at Savannah] is desired, institution of a three- or four-shift operation at the LANL facility should be more than adequate to handle the complex's plutonium recycling needs."

"Although there may be resistance at LANL to converting Building TA-55 into a full-scale production facility, an administrative solution should be possible. In any case, more extensive use could be made of this efficient operation with its exemplary operating history and its strong technical staff."

And the Energy Department's Advisory Committee on Nuclear Facility Safety, informally known as the

recommend that serious consideration be given to how the capabilities at TA-55 could be used to provide broader benefits to the complex."

Another big concern of environmentalists is LANL's \$385 million plan to build a replacement for the

**'This facility, operating for the most part on a one-shift, 5-day schedule, can process almost half as much plutonium as Rocky Flats can ... and turn out a purer product.'**

National Research Council  
1989 report

laboratory now providing support to TA-55 and clean up the old lab.

The new laboratory — known as the Special Nuclear Materials Research and Development Laboratory — also would take over some analysis work now being done at TA-55, a move environmentalists fear would increase plutonium-processing capabilities.

### Findings disputed

LANL officials have disputed the findings of the National Research Council that TA-55 easily could take over more plutonium-processing responsibilities and do a better job than Rocky Flats.

Christensen said TA-55 is not designed for such production work and called the report a "bunch of hooley."

He said Los Alamos officials have contacted the National Research Council in an attempt to have the report changed. Rick Borchelt, a spokesman for the council, said no such contact has been made.

Borchelt added that the information in the report was based on a council committee visit to the lab lasting 2 days, briefings from LANL officials and the expertise of a former Los Alamos staff member.

Lab officials also have maintained that construction of the replacement support laboratory for TA-55 would not increase plutonium-processing

production and processed that plutonium prior to its shutdown in 1989, Rocky Flats also did recovery work along with recycling plutonium from retired nuclear weapons.

Citing national security, LANL officials refuse to discuss how much plutonium has been processed at the lab in recent years but say the

Environmentalists are concerned about a Los Alamos takeover of Rocky Flats' plutonium-processing work because of the possible impacts of that work on the environment and worker and public health and safety. At Rocky Flats, the impacts have been severe, including extreme plutonium contamination of ventilation

Randy Booker, a researcher for the Natural Resources Defense Council, said operations such as those at LANL to recover and process the plutonium from wastes produce large amounts of new waste.

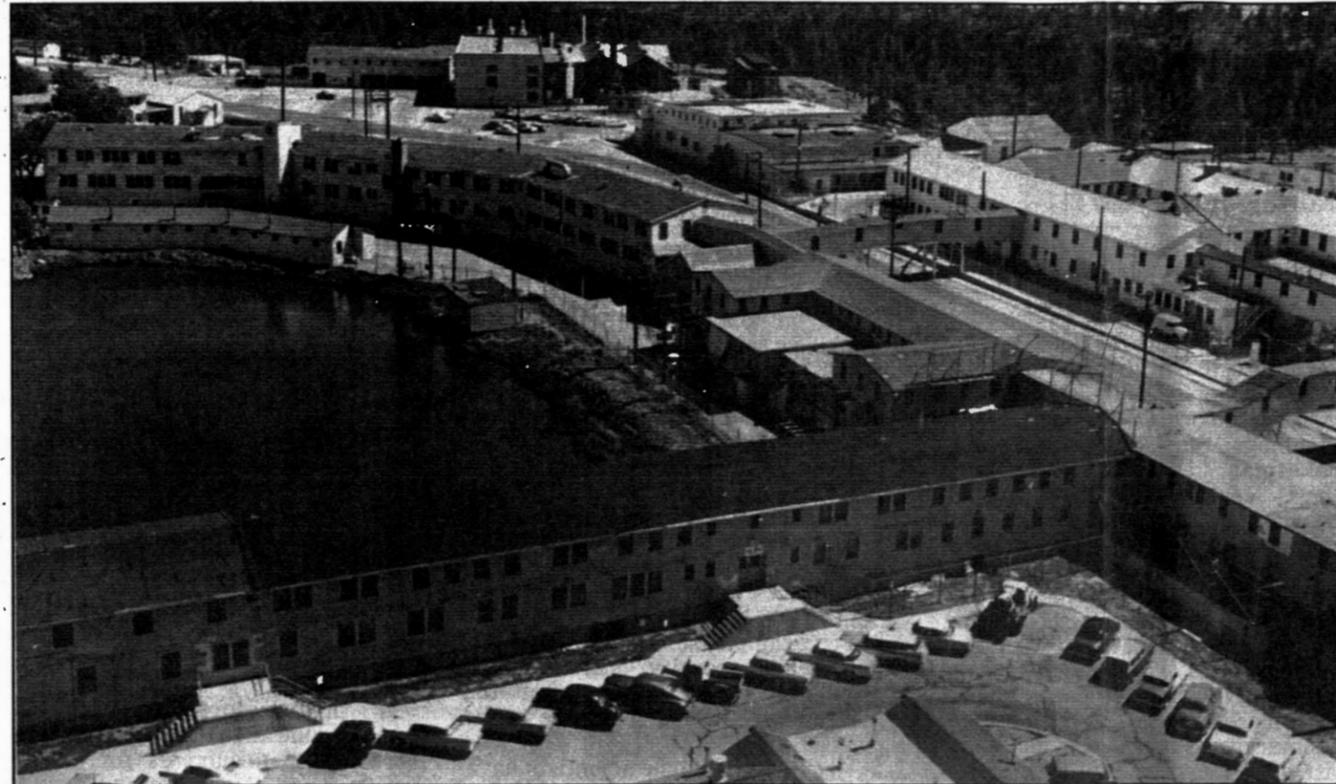
"You're actually increasing the material, as far as we know, that is going to have to be shipped to WIPP,"

visory Committee on Nuclear Facility Safety, informally known as the Ahearne committee, had this to say in a report released in November:

"The Committee believes that the plutonium processing capabilities and expertise it saw at TA-55 are a significant but under-utilized asset to [the Energy Department]. ... We

support laboratory for TA-55 would not increase plutonium-processing capabilities at Los Alamos.

Congress last year suspended funding for construction of the support lab pending development of the Energy Department's plan to modernize the nation's weapons-making complex.



Courtesy Los Alamos Historical Museum

In 1956, the main laboratory surrounded Ashley Pond. The street behind is Trinity Drive.

## Los Alamos lab started in time of war

Los Alamos, the city and the laboratory, in facts and figures:

■ Los Alamos National Laboratory consists of more than 30 active work sites spread over 43 square miles of the Pajarito Plateau, about 25 miles northwest of Santa Fe.

■ The lab site consists of a series of narrow mesas and deep canyons that are described frequently as resembling fingers on a hand or islands in a stream. The maximum elevation, where the plateau flanks the Jemez Mountains to the west, is 7,800 feet.

■ The laboratory was established in 1943 as one of the sites for the Manhattan Engineering District, the top-secret effort by the United States and its World War II allies to build an atomic weapon. It displaced the Los Alamos Ranch School for Boys, homesteads, grazing lands and U.S. Forest Service property.

■ The mission of the scientists sent to Los Alamos was to create the world's first atomic weapon, and

they succeeded. Their efforts resulted in the first atomic explosion, at Trinity Site near Alamogordo, and the creation of the bombs that were dropped on Nagasaki and Hiroshima, Japan, to end World War II.

■ LANL, one of four federal weapons labs, always has been managed by the University of California, but ownership has passed over the years from the Army to the Atomic Energy Commission to the Energy and Research Development Administration to the Department of Energy. In the process, its name was changed from Los Alamos Scientific Laboratory to Los Alamos National Laboratory.

■ The town first opened to the public in 1957, and land was released to Los Alamos County and to private individuals in the 1960s. The latest census shows about 18,115 people live in Los Alamos County, about three-fifths residing in the Los Alamos town site and the rest in nearby White Rock. The county grew by just 3 percent from 1980 to 1990,

while the rest of the state grew by 16 percent.

■ The laboratory employs about 7,500 people directly and several thousand more through subcontractors. About one-third commute to work from outside the county.

■ The laboratory's budget is \$933 million this year, 13½ times the annual budget of the city of Santa Fe. Nuclear weapons and other defense projects account for 76 percent of the lab's funding, with the rest spent on energy and other civilian research and development.

■ Los Alamos is the wealthiest, best-educated and most Anglo county in New Mexico. Its 1988 per capita annual income was \$22,614, compared to a state average of \$12,439. The average resident had completed 15.5 years of school, according to the 1980 census; no other county in the state has an average above 13 years. And the 1980 census showed that Anglos made up 86.4 percent of the Los Alamos population but just 53.1 percent of the state's.

## Back in 1984, someone could have grabbed a real nuclear bomb

In the spring of 1984, the U.S. Department of Energy confirmed it was transferring something it called "a nuclear weapons sub-assembly plant" from Los Alamos National Laboratory to the Nevada Test Site.

In a syndicated newspaper column that made the issue public, investigator Jack Anderson said the Energy Department was worried about the theft of plutonium or weapons-grade uranium.

Here's what Anderson apparently didn't know and what the Energy Department didn't bother to mention: The items the Energy Department was worried about were complete, ready-to-fire nuclear weapons.

"It created a situation where it wouldn't have taken much effort for someone to go up there and help themselves to one of those (nuclear weapons) and then conceivably go blow up a city," said Jeffrey Hodges, a research analyst with a U.S. House subcommittee.

"At the time it was very highly classified," Hodges said. In the early 1980s, he said, LANL built "test devices" that were complete nuclear weapons. The devices were then taken to Nevada for underground explosion.

"These devices are nuclear weapons and one would think these would be safeguarded to the most stringent standards possible," Hodges said.

An Energy Department inspection team in early 1980 found the weapons were not adequately guarded, Hodges said.

"In fact, they could readily have been stolen," he said.

In a letter to then-Energy Secretary Donald Hodel, Rep. John Dingell, D-Mich., said at the time that the inspection found a guard force, so depleted "it was totally ineffective and special nuclear material was stored in numerous locations over the site which could not be defended."

The site where the nuclear weapons were stored "was not adequately defended," Dingell wrote.

As chairman of the Subcommittee on Oversight and Investigations of the House Committee on Energy and Commerce, Dingell held a series of secret hearings that addressed the problems at Los Alamos.

During subcommittee questioning in 1980, an Energy Department official acknowledged that if LANL had been a sovereign nation he would have recommended "that no special nuclear material be shipped to Los Alamos until the security at the facility was substantially upgraded."

"That is the single most shocking admission possible," Dingell wrote Hodel.

Nevertheless, the Energy Department did nothing for four years, Hodges said.

In March 1984, another Energy Department inspection team conducted a full-scale test at Los Alamos. The results were a "shocking commentary" on safety at Energy Department facilities, Dingell wrote.

"In two tests, the mock terrorists would have been able to steal plutonium," he said. "In another test, a band of terrorists would have easily stolen a nuclear test device."

Dingell contended that, even after that test, the weapons were not transferred to Nevada until further pressure was applied by the subcommittee. Hodel disagreed, saying the weapons were transferred by Energy Department immediately upon receipt of the inspection results.

Today, Los Alamos National Laboratory officials say nuclear test weapons are fabricated at LANL but that they are never completely assembled in Los Alamos. Instead, the pieces are transferred unassembled to Nevada, the officials say.



## Fouling the Nest

A New Mexican Special Report on Los Alamos National Laboratory

# Security continually gets short shrift, guards say

Los Alamos National Laboratory makes nuclear bombs and then worries about them.

Because of that and because it is on the cutting edge of nuclear weapons research and keeps large amounts of plutonium handy, the lab has hundreds of armed guards and miles of barbed wire.

The multi-million dollar security effort, to the casual observer, appears tight.

Is it?

Some of the laboratory's security people paint a portrait of an institution where the guards are under-trained, underpaid and overworked; where the scientists they're supposed to guard don't take them seriously; and where laboratory management fails to supply the necessary money and support.

"All the guard force does up here is check badges," said one of two veteran guards who spoke with *The New Mexican* only after demanding a guarantee of anonymity.

A series of federal investigations over the past decade appears to support this bleak view of security at Los Alamos.

### Bleak picture

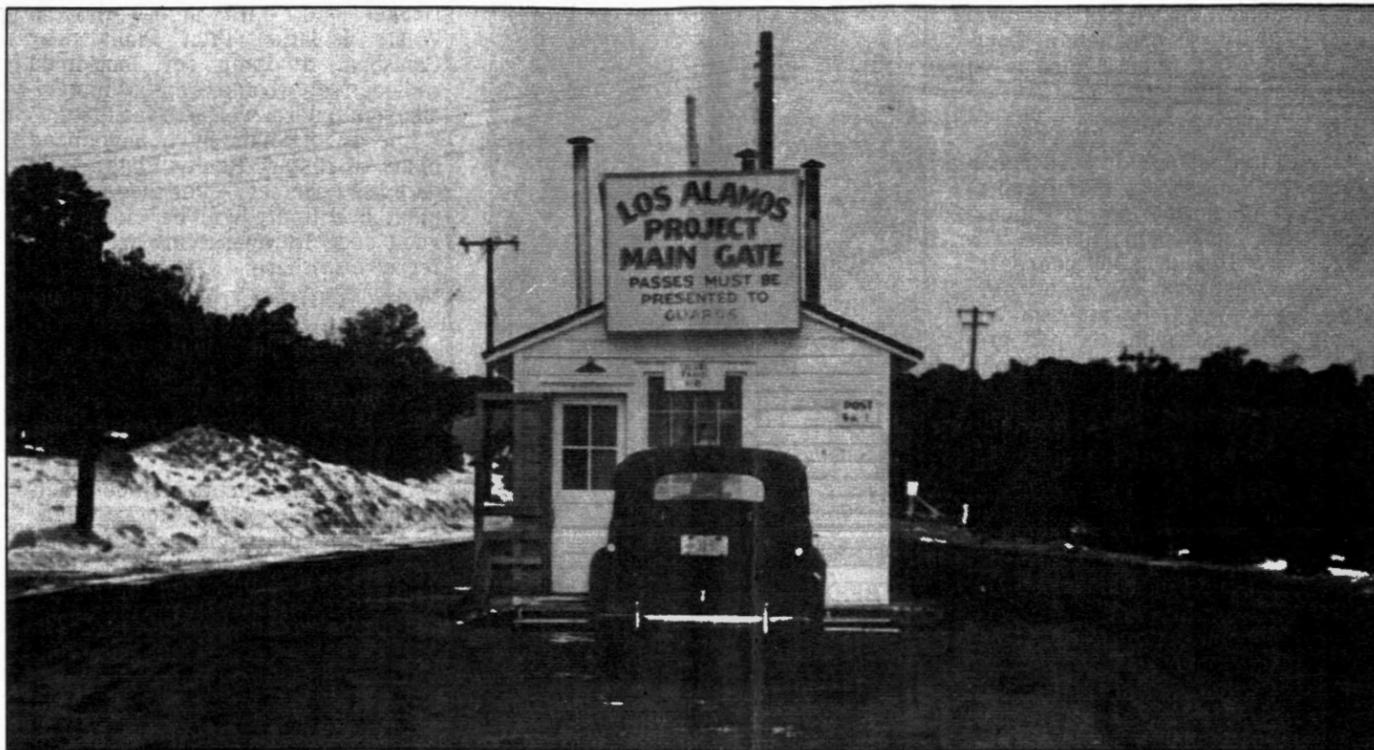
LANL security forces failed miserably last year when investigators staged a surprise test to gauge the guards' abilities. The test came in the wake of a 1989 walkout over job conditions.

"When a security force — the first line of human defense — cannot perform its duties, is ineffective or improperly trained, little assurance exists that sensitive facilities are appropriately safeguarded," said the resulting report by the General Accounting Office, the investigative arm of Congress. "Yet, this is the situation we found at Los Alamos before, during and since the 1989 strike."

The report charged that training was not adequately documented, security during the strike was questionable and that as recently as April 1990, three-fourths of the Los Alamos guards lacked essential skills.

That report was not the first to criticize security at Los Alamos.

Federal inspections from 1985 to 1989 found more problems at LANL than at any other U.S. Department of Energy facility. During that period, 24 problems were noted in 19 different evaluation areas, nearly twice the



Courtesy Los Alamos Historical Museum

A security gate in the early days of the Manhattan Project when the lab was young.

## Backlog still clogs clearance mill works

The U.S. Department of Energy office that oversees Los Alamos National Laboratory has cut by one-half the number of employees overdue to have their security clearances reinvestigated — but still has a backlog of 16,000 cases.

The Energy Department has not been reinvestigating its employees on time, a series of reports by the General Accounting Office, the investigative arm of Congress, revealed in 1987 and 1988.

In 1986, the Energy Department's Albuquerque office had a backlog of more than 33,000 employees who needed to be reinvestigated to determine if they were still safe security risks.

The latest figures show that num-

ber has fallen to 16,000, or about one-third of all employees under the jurisdiction of the Albuquerque office, said Rush Inlow, assistant manager for safeguards and security for the Department of Energy-Albuquerque.

Specific figures on LANL's clearance backlog are not available.

Energy Department policy requires that employees with security clearances be reinvestigated every five years "because of the sensitivity and national security implications of its programs," the General Accounting Office said.

The federal report said failure to reinvestigate employees can have serious consequences.

For example, the agency found

some employees overdue for reinvestigation, including some in sensitive jobs such as security guard, who had developed alcohol and drug problems that included on-the-job drug use.

And John Walker, who engaged in espionage for the Soviet Union, never was reinvestigated in the 11 years after he initially was cleared by the Navy.

Inlow said the goal is to eliminate the backlog of clearance cases by the 1993 fiscal year, which begins in October 1992.

In an attempt to meet that goal, the Albuquerque office has increased by 50 percent the number of staff members who deal with security clearances and has hired additional contractors to assist.

authority — they need to do their jobs.

"They'll institute a (security) policy and we'll implement it, and if it has any inconvenience for lab people they'll repeal it as fast as they instituted it," one of the guards said.

"It keeps the security inspectors frustrated. They're trying to do their job but if someone takes exception with it, (lab officials) change the rule to accommodate the person who complained.

"After a while, after you've bumped your head against the wall for so long, it's easy to get an attitude of, 'What does it matter? Why should I do anything if they just keep changing it when I try to do my job?'"

"There's really not that much support of the uniformed security people by the laboratory," he said.

Sometimes it seems laboratory security officials "are there to protect the laboratory from the guards" instead of helping the guards protect the lab from outside threats, he added.

The federal report released last November agreed that a federal security force might be better than using private contractors — but for a different reason. A federal force could save money, the report said.

The General Accounting Office concluded such a move probably would not have a significant effect on the level of safety but could save \$2.2 million per year at LANL and as much as \$14.8 million by also federalizing eight other Department of Energy security forces.

LANL security was provided by federal employees until 1981, when Mason and Hanger took over.

### Findings

Other findings of the recent federal report:

■ During the 1989 strike, the Energy Department did not conduct the inspections and tests needed to judge if replacement guards were adequately protecting LANL.

The department waited two weeks into the strike to conduct its first inspection and waited six weeks before conducting performance tests, the report said.

After four weeks, a House subcommittee notified the department it had received "allegations of many instances of firearms horseplay by the replacement force." Two federal energy officials investigated the next

by October whether it will keep Mason and Hanger or go with a different company.

LANL and Mason and Hanger refused to say how much the security contractor is paid but information

on a voluntary basis. But you've still got to work overtime because otherwise you can't survive with the cost of living in this area." (Los Alamos has the highest cost of living in the state.)

high.

Turnover is not excessive, Jennings said. Mason and Hanger recently cut its annual turnover rate to under 10 percent, he said.

Jennings acknowledged that he

number found at any other Department of Energy facility.

Federal inspections in 1986 and 1988 revealed that guards at Los Alamos "could not effectively detain and/or arrest intruders," the federal report said.

Although the University of California, the contractor that operates the laboratory, assured the Energy Department that corrective actions had been taken after those inspections,

**'When a security force — the first line of human defense — cannot perform its duties, is ineffective or improperly trained, little assurance exists that sensitive facilities are appropriately safeguarded.'**

**General Accounting Office**  
Report about lab guards

"We found that these problems still existed as of April 1990," the federal report said.

Los Alamos National Laboratory refused to answer any *New Mexican* questions on security-related matters. LANL's parent agency, the Department of Energy, and its security subcontractor, Mason and Hanger-Silas Mason, refused to comment on the federal report but granted limited interviews on a few security-related topics.

#### Not changing

One guard said LANL officials were angered by the federal report. "But that's about it. They're not changing anything. We haven't had any (additional) training since that came out. I've heard of plans for training but it hasn't gone through yet."

He blames LANL and the University of California for the security weaknesses because they have failed to supply adequate funding to Mason and Hanger, he said.

"But Mason and Hanger has the responsibility for national security. If they need to go to Washington to get what they need, then they should do that."

On the other hand, the guard said, Mason and Hanger is afraid it could lose its Los Alamos contract if it is too aggressive.

"They're threatened with, 'If you do that we'll pull your contract,'" he said.

In fact, Mason and Hanger's contract is up for renewal this year. The laboratory has opened the contract for bidding and is expected to decide

supplied to Congress shows the contract was worth about \$16.5 million in the budget year that ended Sept. 30, 1989.

Mason and Hanger employs nearly 400 people, including supervisors and trainees, said John Jennings, human relations manager for the company. He declined to provide a breakdown of how many are armed guards.

In addition, the laboratory employs about 125 people in its operational security and safeguards division, which oversees Mason and Hanger and provides internal security for such things as classified documents.

#### Modest salaries

Relatively modest salary — in the area of \$10 or slightly less an hour in many instances — is one of the biggest obstacles faced by the Los Alamos security force, one of the guards said. He said other Energy Department sites pay \$1 to \$3 per hour more than Los Alamos. For example, Rocky Flats, a federal facility near Denver, pays nearly \$2 more, he said.

That results in an overworked and inexperienced force, the guard said.

Overtime worked by guards was one of the central issues in the 10-week strike that ended in May 1989. Guards contended during the strike that they routinely were made to work 12- and 16-hour days and six- and seven-day weeks.

The overtime problem has not improved much since the strike, the guard said.

"Our overtime is still about the same as it was," he said. "The only change is they're not directing us; it's

Such wages also aggravate a traditionally high turnover rate, the guard said.

"We're losing people left and right to other sites," he said. "We lost five guys last month to Rocky Flats. I would say approximately half the guys on the force right now are pretty much rookies."

A second guard confirmed his colleague's views.

"Most (Energy Department) sites pay better for the same job," he said. "We just lost five or six guys to Rocky Flats and probably a dozen more are going to be leaving in the next month."

#### Training quality

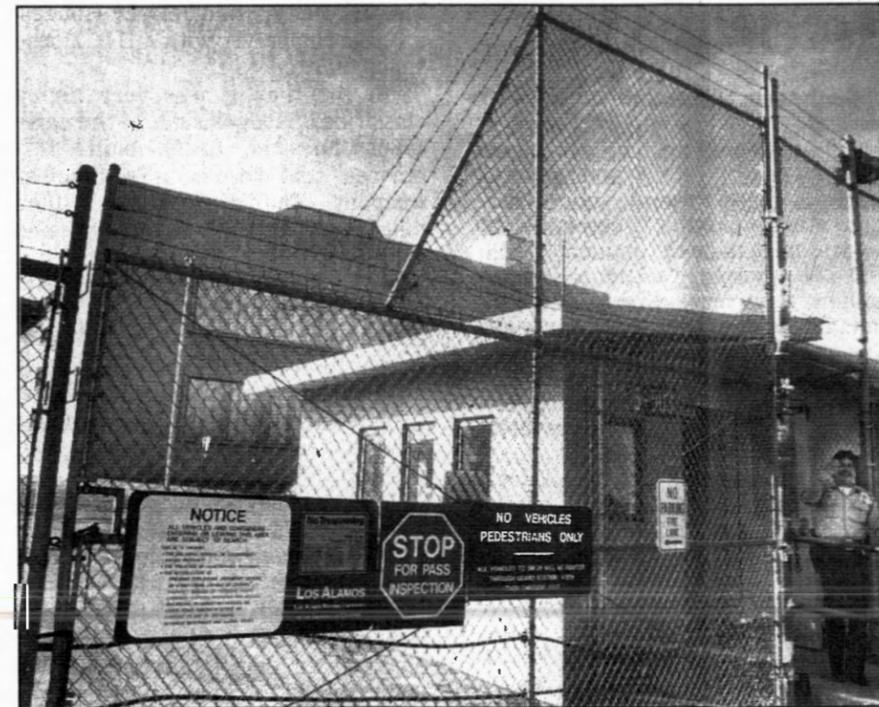
The shortage of money also affects the quality of the training, he said.

"If funds get short they'll cancel our training before they do anything else," he said. "The lab doesn't seem real interested in giving us quality training. They're more interested in whatever looks good on paper."

Jennings, the Mason and Hanger spokesman, agreed Los Alamos guards could make more money elsewhere, but he said the natural beauty of the area made it unnecessary to pay more.

"What I've found is people who like northern New Mexico are not going to pick up and move to Denver," Jennings said. "I wouldn't leave northern New Mexico for a couple bucks more an hour."

Some overtime is an inevitable part of the job, he said, but Mason and Hanger now tries to limit it to no more than 12 hours per week per person, a figure that some private companies would find unacceptably



A guard waves the photographer away from the gate of a lab building near the main technical area. Gates, barbed wire and guard stations are a way of life at the lab.

would like to add 50 more guards to the staff. The obstacle to increasing the staff's size is that guards must receive "Q-clearances," the Energy Department's highest-level security clearance, and it can take up to 18 months for someone to be cleared, he said.

All guards receive 10 weeks of training before they begin work and all receive further training every year they are on the job, Jennings said. He also denied any suggestion that LANL has failed to provide enough money for the guards' training needs.

Jennings said he would like to express some complaints about the amount of money his company receives from LANL, but he wouldn't be specific.

"I could go on and on and bitch and bitch, but (LANL is) my client so I can't," he said.

#### Taking it seriously

The guards' jobs are not made any easier by the fact that the scientists and other civilian personnel at the laboratory "don't take security seriously at all," one of the guards said. "They think that in a scientific community they can keep things to themselves and it won't be a problem."

For example, some LANL civilians will leave security doors wedged open for easier access after the guards have locked them, the guard said.

Also, he said, some scientists have taken visitors without clearances into security areas by bringing them through automatic turnstiles that can be opened by a lab badge.

The lab employee can slide a badge through a slot similar to the one on an automatic teller machine and then use a palm print to open the turnstile, he said. "And then they bring their visitors through."

The other guard confirmed that the laboratory's civilian employees have weakened security.

"They've always pushed for a college campus-type atmosphere up there," he said. "They put a lot of restrictions up there on what we can and can't do, irregardless of (the Energy Department's) rules and regulations."

Jennings, however, said everyone at LANL is "security aware."

As for specific examples of scientists circumventing security, "I've heard of them," he said. "I haven't been able to prove any of them."

The quickest way to improve security might be to have the guards work directly for the Energy Department instead of for a contractor, the guards said.

The underlying problem they see with security at Los Alamos, they said, is the failure of the laboratory and the University of California to give the guards the money — and the

day and found no horseplay but noted 12 of 30 replacements interviewed lacked proficiency with the weapons they were required to use.

■ Many of the replacement guards did not meet one or more of 12 basic skills.

■ Most guards failed a surprise test.

None of the auxiliaries was certified in physical fitness, use of billy clubs (batons) or night use of fire-

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Lab guard

arms. Problems with augmentees included 35 who were not certified in arrest procedures and 66 not certified in batons.

■ Training records were missing. "We found that many training and certification documents for the security force before the strike were missing, incomplete, undated, changed or unsigned," the General Accounting Office said.

Because of the incomplete training records, the Energy Department conducted a surprise test at the General Accounting Office's request in April 1990. Only 12, or 22 percent, of the 54 guards tested could pass all nine skills tests.

The biggest failing was the apprehension test that checks six skills: force and arrest, security operations, communications, tactics, self defense and site protection. More than 70 percent of LANL's guards failed this test.

For example, when they encountered an adversarial situation, many guards failed to stay behind cover to protect themselves, the report said.

"Instead, they left their cover and walked up to the potential adversary to ask what they were doing. As a result, in many instances, the adversary took a visible weapon, killed the participant or hostage, and left with the classified documents or government property," the report said.

"In total, 24 participants and hostages were 'killed' during this testing," it said.



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Courtesy Los Alamos Historical Museum

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number found at any other Department of Energy facility.

Federal inspections in 1986 and 1988 revealed that guards at Los Alamos "could not effectively detain and/or arrest intruders," the federal report said.

Although the University of California, the contractor that operates the laboratory, assured the Energy Department that corrective actions had been taken after those inspections,

**'When a security force — the first line of human defense — cannot perform its duties, is ineffective or improperly trained, little assurance exists that sensitive facilities are appropriately safeguarded.'**

**General Accounting Office**  
Report about lab guards

"We found that these problems still existed as of April 1990," the federal report said.

Los Alamos National Laboratory refused to answer any *New Mexican* questions on security-related matters. LANL's parent agency, the Department of Energy, and its security subcontractor, Mason and Hanger-Silas Mason, refused to comment on the federal report but granted limited interviews on a few security-related topics.

### Not changing

One guard said LANL officials were angered by the federal report. "But that's about it. They're not changing anything. We haven't had any (additional) training since that came out. I've heard of plans for training but it hasn't gone through yet."

He blames LANL and the University of California for the security weaknesses because they have failed to supply adequate funding to Mason and Hanger, he said.

"But Mason and Hanger has the responsibility for national security. If they need to go to Washington to get what they need, then they should do that."

On the other hand, the guard said, Mason and Hanger is afraid it could lose its Los Alamos contract if it is too aggressive.

"They're threatened with, 'If you do that we'll pull your contract,'" he said.

In fact, Mason and Hanger's contract is up for renewal this year. The laboratory has opened the contract for bidding and is expected to decide

supplied to Congress shows the contract was worth about \$16.5 million in the budget year that ended Sept. 30, 1989.

Mason and Hanger employs nearly 400 people, including supervisors and trainees, said John Jennings, human relations manager for the company. He declined to provide a breakdown of how many are armed guards.

In addition, the laboratory employs about 125 people in its operational security and safeguards division, which oversees Mason and Hanger and provides internal security for such things as classified documents.

### Modest salaries

Relatively modest salary — in the area of \$10 or slightly less an hour in many instances — is one of the biggest obstacles faced by the Los Alamos security force, one of the guards said. He said other Energy Department sites pay \$1 to \$3 per hour more than Los Alamos. For example, Rocky Flats, a federal facility near Denver, pays nearly \$2 more, he said.

That results in an overworked and inexperienced force, the guard said.

Overtime worked by guards was one of the central issues in the 10-week strike that ended in May 1989. Guards contended during the strike that they routinely were made to work 12- and 16-hour days and six- and seven-day weeks.

The overtime problem has not improved much since the strike, the guard said.

"Our overtime is still about the same as it was," he said. "The only change is they're not directing us; it's

Such wages also aggravate a traditionally high turnover rate, the guard said.

"We're losing people left and right to other sites," he said. "We lost five guys last month to Rocky Flats. I would say approximately half the guys on the force right now are pretty much rookies."

A second guard confirmed his colleague's views.

"Most (Energy Department) sites pay better for the same job," he said. "We just lost five or six guys to Rocky Flats and probably a dozen more are going to be leaving in the next month."

### Training quality

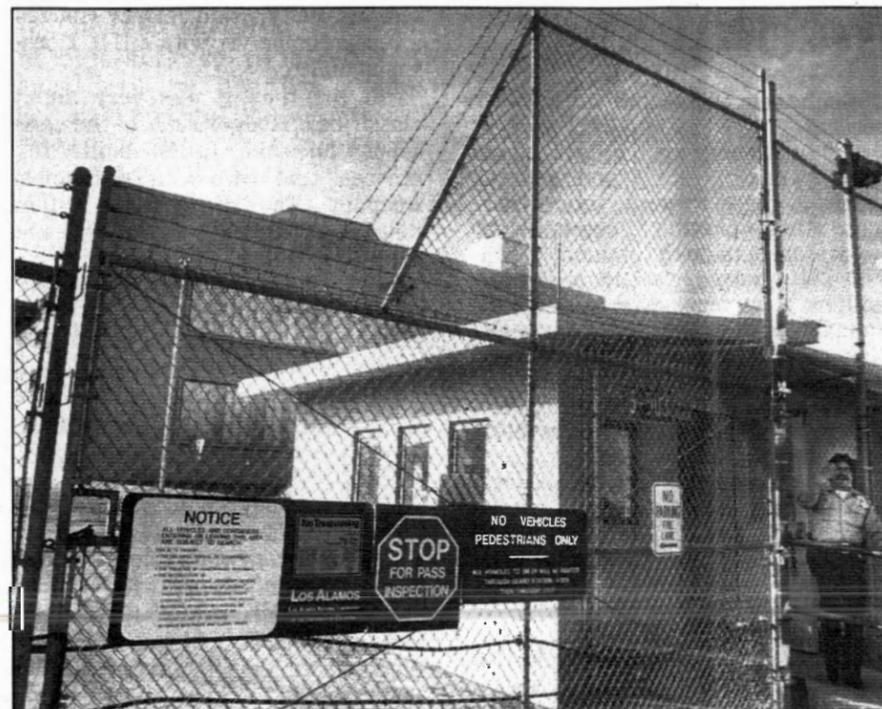
The shortage of money also affects the quality of the training, he said.

"If funds get short they'll cancel our training before they do anything else," he said. "The lab doesn't seem real interested in giving us quality training. They're more interested in whatever looks good on paper."

Jennings, the Mason and Hanger spokesman, agreed Los Alamos guards could make more money elsewhere, but he said the natural beauty of the area made it unnecessary to pay more.

"What I've found is people who like northern New Mexico are not going to pick up and move to Denver," Jennings said. "I wouldn't leave northern New Mexico for a couple bucks more an hour."

Some overtime is an inevitable part of the job, he said, but Mason and Hanger now tries to limit it to no more than 12 hours per week per person, a figure that some private companies would find unacceptably



A guard waves the photographer away from the gate of a lab building near the main technical area. Gates, barbed wire and guard stations are a way of life at the lab.

would like to add 50 more guards to the staff. The obstacle to increasing the staff's size is that guards must receive "Q-clearances," the Energy Department's highest-level security clearance, and it can take up to 18 months for someone to be cleared, he said.

All guards receive 10 weeks of training before they begin work and all receive further training every year they are on the job, Jennings said. He also denied any suggestion that LANL has failed to provide enough money for the guards' training needs.

Jennings said he would like to express some complaints about the amount of money his company receives from LANL, but he wouldn't be specific.

"I could go on and on and bitch and bitch, but (LANL is) my client so I can't," he said.

### Taking it seriously

The guards' jobs are not made any easier by the fact that the scientists and other civilian personnel at the laboratory "don't take security seriously at all," one of the guards said. "They think that in a scientific community they can keep things to themselves and it won't be a problem."

For example, some LANL civilians will leave security doors wedged open for easier access after the guards have locked them, the guard said.

Also, he said, some scientists have taken visitors without clearances into security areas by bringing them through automatic turnstiles that can be opened by a lab badge.

The lab employee can slide a badge through a slot similar to the one on an automatic teller machine and then use a palm print to open the turnstile, he said. "And then they bring their visitors through."

The other guard confirmed that the laboratory's civilian employees have weakened security.

"They've always pushed for a college campus-type atmosphere up there," he said. "They put a lot of restrictions up there on what we can and can't do, irregardless of (the Energy Department's) rules and regulations."

Jennings, however, said everyone at LANL is "security aware."

As for specific examples of scientists circumventing security, "I've heard of them," he said. "I haven't been able to prove any of them."

The quickest way to improve security might be to have the guards work directly for the Energy Department instead of for a contractor, the guards said.

The underlying problem they see with security at Los Alamos, they said, is the failure of the laboratory and the University of California to give the guards the money — and the

Energy officials investigated the next day and found no horseplay but noted 12 of 30 replacements interviewed lacked proficiency with the weapons they were required to use.

■ Many of the replacement guards did not meet one or more of 12 basic skills.

■ Most guards failed a surprise test.

None of the auxiliaries was certified in physical fitness, use of billy clubs (batons) or night use of fire-

**'If funds get short they'll cancel our training before they do anything else. The lab doesn't seem real interested in giving us quality training. They're more interested in whatever looks good on paper.'**

Lab guard

arms. Problems with augmentees included 35 who were not certified in arrest procedures and 66 not certified in batons.

■ Training records were missing.

"We found that many training and certification documents for the security force before the strike were missing, incomplete, undated, changed or unsigned," the General Accounting Office said.

Because of the incomplete training records, the Energy Department conducted a surprise test at the General Accounting Office's request in April 1990. Only 12, or 22 percent, of the 54 guards tested could pass all nine skills tests.

The biggest failing was the apprehension test that checks six skills: force and arrest, security operations, communications, tactics, self defense and site protection. More than 70 percent of LANL's guards failed this test.

For example, when they encountered an adversarial situation, many guards failed to stay behind cover to protect themselves, the report said.

"Instead, they left their cover and walked up to the potential adversary to ask what they were doing. As a result, in many instances, the adversary took a visible weapon, 'killed' the participant or hostage, and left with the classified documents or government property," the report said.

"In total, 24 participants and hostages were 'killed' during this testing," it said.



# Fouling the Nest

A New Mexican Special Report on Los Alamos National Laboratory

## Stories are about the people as much as buildings, places

Here are some of the people you will meet during this six-day series on Los Alamos National Laboratory:

■ **Doug Barnes**, 40, of El Rancho. Barnes was removing buried diesel fuel tanks and fuel lines in a lab area when he hit a fuel line and was doused with cancer-causing benzene. His hands, groin and eyes were swollen. Deep cracks also developed in his groin and hands. The painful symptoms eventually disappeared, but they appear any time he is exposed to extreme heat or cold.

"I used to do a lot of skiing and hiking, but in the last two years, I haven't done anything," Barnes said. "I know it's taken years off my life."

■ **Ben Ortiz**, 53, of Nambe. He has insomnia, depression, dizziness, nausea, memory loss, breathing difficulty and a feeling of being disoriented. He can't tolerate the smell of his wife's perfume and nail polish, the smoke from cigarettes, and the exhaust fumes from cars.

His physician says his respiratory and neurological problems are the result of his 20 years of exposure to chemicals while working as a mechanical technician at Los Alamos.

Because of his illness, "I have no social life," Ortiz says.

■ **David Salazar**, 54, of Hernandez took an early retirement from the lab this year after more than 20 years at the facility.

A machinist, he also was exposed to chemicals. He got sick in May 1989 and his symptoms are similar to those of Ortiz.

"I'm only sleeping 2 or 2 1/4 hours



BARNES



ORTIZ

a night," Salazar said. "I'm tired all the time."

■ **Jerry Taylor**, 34, of Keokuk, Iowa. He thinks he's going to die of cancer because nearly 11 years ago he was badly contaminated with plutonium in a Los Alamos lab accident. at Los Alamos National Laboratory's plutonium-processing facility.

"I feel I might die a lot younger because of this accident," he said.

■ **Socorro Trujillo**, of Pojoaque, widow of Victor, 48. Victor died of lung cancer last May. He had worked for 17 years at the lab.

His job meant potential exposure to low doses of radiation and possible inhalation of radioactive plutonium. But Trujillo also smoked, and cigarettes are known to cause lung cancer. His wife says he didn't smoke at home. At work, however, he did. The cigarettes were free — courtesy of Los Alamos National Laboratory.

"It doesn't sound like they are very smart up there," Socorro Trujillo says.

## Iraq war alert 'a joke'

### Heightened alert quickly fades away, guard says

When Iraqi President Saddam Hussein threatened to use terrorism against the United States as part of the Persian Gulf War, Los Alamos National Laboratory promised to step up its security.

One guard at the facility, however, says the supposedly increased security is "a joke."

The guard, who spoke on condition of anonymity, charged that financial concerns caused the laboratory to cancel a series of planned steps that would have strengthened security.

On Jan. 16, the day the war started, security at U.S. Department of Energy nuclear weapon facilities such as LANL was increased to level No. 2 from the level No. 3 alert that had been in effect since hostilities between Iraq and the United States began developing last year.

The new alert status required the laboratory's SWAT-like Rapid Response Team to live on site and for all other guards to be on call by their telephones, able to respond within the hour if needed.

The next day, however, the Rapid Response Team was sent home and guards were placed on a four-hour alert that allows them to travel or do whatever they wish as long as they can respond to a call within four hours.

"I've seen what (laboratory officials) have done to our alert status now due to the Persian Gulf crisis, and it's a joke," the guard said. "Currently, we're supposed to be on alert status 2, but the only thing that's changed is that if they call me I have to respond in four hours. What the hell good is that going to do?"

The reason the heightened security was canceled in just 24 hours: money, the guard said.

A one-hour alert requires that guards must be paid as if they are on duty while guards are paid nothing extra for being on four-hour alert, he said. And the difficulties of feeding and housing the Rapid Response Team can be avoided by not requiring them to stay on-site, he said.

Officials with LANL and Mason Hanger-Silas Mason, the contractor in charge of security, refused to discuss the lab's security response to the Gulf War.

Rush Inlow, assistant manager for safeguards and security at the Department of Energy's Albuquerque office, said that a level No. 2 alert calls for more guards to be on duty, for increased surveillance of perimeter areas and for more searches to be conducted.

The Los Alamos guard insists none of that has been done at LANL.

"We haven't added a thing to the staffing levels," he said. "A guard in some of these places out in the boonies, it could take him a half an hour to get any backup."

"It scares me a lot," he said.

On Jan. 7, as the U.N. deadline for Iraq to leave Kuwait approached, the Energy Department's Albuquerque office sent a message to the various facilities under its jurisdiction.

In the message, Los Alamos and the other facilities were instructed to comply with standard federal orders for increased security and also were ordered to implement special security "enhancements" explained in the message.

The enhancements for alert level No. 2 included a requirement that the Rapid Response Team stay on-site and that all guards be placed on a one-hour alert.

Nine days later, however, on the day the Gulf War began, the Department of Energy backed down.

A new message was sent. It replaced the one-hour alert for all guards with a four-hour response time and said the Rapid Response Team should be available within one hour but didn't have to stay on-site.

Although the original message said the enhancements "must be incorporated" into emergency planning, Inlow said they were only proposals.

"We asked our sites to consider what it would take to put those enhancements in place and let us know what it would require to do that," Inlow said.

The decision to amend the enhancements was "based on feedback from the sites that, 'Gee, we can't really accommodate those people living on site for long periods of time,'" he said.

A four-hour alert for guards is enough, Inlow said, because it provides for a greater margin of safety in case Los Alamos should have advance warning of an impending terrorist attack.

John Jennings, human relations manager at Mason and Hanger, wouldn't discuss specifics of lab security since the Gulf War but said, "Security's always been tough up here ever since it was a closed city. When you're good you can't get much better."

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