

Radioactivity levels push limit



Santa FE. NM 11/2/93

Area G in Los Alamos National Laboratory's Area G contains barrels of radioactive and hazardous waste.

Radioactivity levels at the federal limit for annual exposures to workers have been detected in the area.

LANL waste area in question

11/2/93

By KEITH EASTHOUSE
The New Mexican

Levels of radioactivity at the federal limit for annual exposures to workers have been detected in a nuclear waste disposal and storage area at Los Alamos National Laboratory, according to laboratory documents.

Plutonium in concentrations below hazardous levels but more than 100 times natural background levels have also been detected immediately outside the disposal area, according to a 1991 environmental assessment of the area.

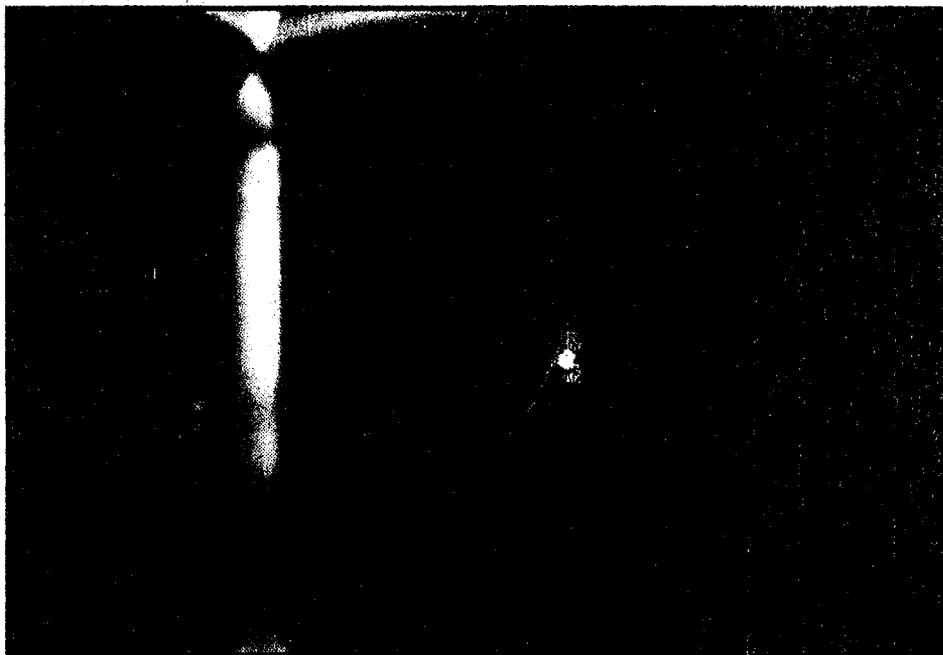
Federal officials said the elevated levels do not pose a threat to workers because exposure to the radioactivity is limited.

The disposal area, called Area G, is located in Technical Area 54, off State Road 502 in the southeastern corner of the laboratory.

Area G, which is fenced off, has served as a dump and storage area for nuclear and chemical waste generated by the laboratory since 1957.

Some of the waste is plutonium-contaminated waste bound for the Waste Isolation Pilot Plant, the controversial underground nuclear repository near Carlsbad.

The 63-acre disposal area is rapidly filling up with waste, and the laboratory is seeking permission from the U.S. Department of Energy



A barrel of hazardous waste in Area G exhibits pinhole corrosion. Lab officials say there is no evidence such drums have leaked.

to expand it by 71 acres. A study of the potential environmental impacts of the expansion is currently being reviewed by DOE.

In September, workers using a radiation detection device found radiation levels in one section of Area G that were equivalent to an annual dose of five rems per year, the maximum allowed by the Nuclear Regula-

tory Commission, lab survey documents show.

An annual dose of five rems is equivalent to receiving 250 to 300 chest X-rays in a year, according to Margaret Lopez of the state Environment Department's Hazardous and

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Radioactive Materials Bureau.

Arjun Makhijani, president of the Institute for Energy and Environmental Research, an environmental consulting firm in Takoma Park, Md., and a frequent critic of DOE, said the levels could be cause for concern.

"With those levels, one should be suspicious of internal (radiation) burdens in some or many of the workers," Makhijani said.

Eddie J. Lujan, one of the laboratory technicians who took the reading, said he believes that it and other elevated readings at Area G pose a health hazard to workers. Lujan has provided data on Area G to the House Subcommittee on Oversight and Investigations and has requested an investigation.

Jeff Crater, a staff member of the subcommittee, which is scrutinizing Energy Department facilities nationwide, said the data had been received but had not yet been closely looked at.

Laboratory officials denied that the hotspot, located near a waste storage building, poses a hazard to workers. They said the only way a worker could reach the five-rem limit would be if the person were standing on the hotspot eight hours a day, 365 days a year.

"Someone would be on the limit if they were there eight hours every day, but they're not so it's not a hazard," said Keith Jacobson, a LANL health physicist.

Paul Charp, a health physicist with the federal Agency for Toxic Substances and Disease Registry in Atlanta, agreed that workers wouldn't be put in jeopardy by the levels detected at the hotspot.

"There's a distinction between a potential dose and an actual one," said Charp, whose agency will conduct a study of the health effects of laboratory

'Someone would be on the limit if they were there eight hours every day, but they're not so it's not a hazard.'

Keith Jacobson
LANL health physicist

operations on the Los Alamos community in coming months. "In this case, receiving a five-rem dose is a hypothetical situation."

Charp said if workers were receiving doses of elevated levels of radiation, it should register on radiation detector badges worn by employees.

Lab spokesman Bill Heimbach said no worker's badge has ever recorded a level of radiation above levels from natural background sources, such as the sun and cosmic rays, in the 16 years the lab has kept records.

Elevated radiation levels have been found elsewhere at Area G by devices that detect radiation in soil, the documents show. Those levels, located at the waste dump's boundaries, are below worker safety standards.

Area G, once little known outside the laboratory, has been a source of controversy in recent months.

In August, the state Environment Department announced that more than 16,000 steel barrels containing a combination of radioactive and chemical wastes at Area G were being stored improperly in violation of federal regulations. State officials said the waste is not stored in a way that allows visual inspection of the 55-gallon drums on a regular basis, as required by the federal Resource Conservation and Recovery Act.

Last month, Lt. Gov. Gilbert Sanchez of San Ildefonso Pueblo said he had evidence that alarmingly high levels of radioactivity from Area G had contaminated pueblo land adja-

cent to the waste dump.

He also accused the lab of misrepresenting results of contamination tests conducted on pueblo land.

Sanchez said last week the data he referred to at a media conference last month were perimeter readings at Area G.

Lab officials have denied that they have misrepresented test results. A lab spokesman said Friday that under a 1987 agreement with the U.S. Bureau of Indian Affairs, test results on pueblo land have been independently analyzed by both the laboratory and the bureau and that the results have been in agreement.

The spokesman said that low levels of radioactivity are present in a stream channel below Area G, and that a finger of pueblo land extends up a canyon in which the channel is located.

Sanchez has asked DOE for money to begin independent monitoring for soil, air and water contamination on pueblo land around the lab.

Jerry Bellows, head of DOE's Los Alamos office, said the agency would meet with pueblo officials sometime this month to discuss their concerns.

"Right now, we're not sure what it is they've got," Bellows said.

According to a memorandum written by LANL health physicist Jacobson on July 31, the elevated levels at Area G may be due to past waste handling practices. He said in the memo that elevated levels may also be coming from plutonium-contaminated waste stored above

ground in domes.

"At this time, it would be difficult to determine if the elevated activity concentrations are due to the storage of the (plutonium-contaminated) drums or past radioactive waste handling and disposal practices," Jacobson said in the two-page memo.

Jacobson said recently in a telephone interview that soil sampling would need to be conducted to determine the source of the radiation at the hotspot. He said it is probably coming from a nearby radioactive waste storage dome and not from the soil.

He said the radiation being detected is more characteristic of Cesium-137, an isotope that emits penetrating gamma rays, than plutonium, which is only dangerous if inhaled or ingested.

Lujan said he suspects the contamination is coming from drums that are leaking, a theory lab officials debunk.

Drums at Area G have developed surface and pinhole corrosion, although lab officials say there is no evidence that those drums have leaked.

Last spring, for example, lab workers found that of about 100 buried drums, eight had surface corrosion and one had a pinhole in it surrounded by a stained area.

That prompted concern on the part of the state Environment Department that many more buried drums could be corroded — and may be releasing toxic contaminants into the environment.

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LANL gets to keep cleanup program

▶ If the Los Alamos National Laboratory's cleanup goals are not met, the DOE may consider hiring someone else to do the job.

BY JOHN FLECK
JOURNAL STAFF WRITER

Los Alamos National Laboratory will not have its massive environmental cleanup program taken away by the Department of Energy, the program's manager said Wednesday.

An agreement approved this week at Energy Department headquarters in Washington, D.C., gives Los Alamos two years to show it can effectively manage the huge cleanup effort, said cleanup manager Jorg Jansen.

"We have the approval and everything is in good order," Jansen said.

The department had threatened to take the program away from the laboratory and hand the cleanup to a private contractor to speed it up.

This week's agreement sets out specific cleanup goals and milestones to be met by the laboratory over the next two years, and Los Alamos Director Sig Hecker has signed a formal letter to the Department of Energy promising to meet those goals.

If the goals are not met, the letter says, the department may pursue "alternative management mechanisms" — a euphemism for hiring someone else to do the job.

At Los Alamos, 1,076 sites have been identified as potentially contaminated. As of this summer, 50 had been cleaned up.

During an August news conference, Assistant Secretary of Energy Tom Grumbly was critical of Los Alamos's handling of the cleanup program, saying laboratory officials

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"have taken some coaxing" to improve their effort.

Los Alamos has spent more than \$200 million on its environmental cleanup program since 1989, and

Jansen said it is budgeted for another \$90 million this year.

Ultimately, according to the laboratory's preliminary estimates, it could cost a total of \$1.3 billion to clean up Los Alamos after more than 50 years of nuclear weapons work there. Current estimates say

the cleanup will not be completed until 2007, Jansen said.

Sandia National Laboratories environmental cleanup program is undergoing a similar review, but officials there and at the Department of Energy say they expect Sandia to retain management of the effort.

Besieged DOE Losing

By Ralph Vartabedian

LOS ANGELES TIMES

800

encourages this."

WASHINGTON — The U.S. Energy Department, charged with cleaning up nuclear debris left over from the arms race, has tied its own hands by signing legal agreements with states and other federal agencies, which it has neither the money nor technology to meet. As a result, the department has been left open to a barrage of lawsuits that are usurping federal policy.

Colorado sued when the Energy Department couldn't meet its cleanup schedule. Nevada sued to keep out Ohio's radioactive dirt. South Carolina went to federal court in an effort to block a shipment of foreign fuel rods.

As matters stand, deciding which contaminated places to clean first "is being left up to courts and who has the most powerful congressional delegations and the meanest attorneys general," said Bob Alvarez, deputy assistant energy secretary. "That is not the way we should be doing business. We have a regulatory framework that

The department signed about 100 legal agreements in the 1980s and 1990s with states and the federal Environmental Protection Agency to clean up heavily contaminated sites. And since then, Congress passed the Federal Facilities Compliance Act, allowing states to sue the Energy Department for noncompliance.

But the \$6.1 billion in annual spending is "woefully short" of what is necessary to meet those agreements and in many cases the government is failing, said Victor Rezendes, a key General Accounting Office watchdog. Unable to comply with its own deals, the federal government is embroiled in some nasty legal disputes. What's more, the compliance agreements have forced the Energy Department to treat each plant as a separate program.

To comply with a deal signed in Ohio, for example, the Energy Department wants to ship 16,000 truckloads of radioactive dirt to its Nevada Test Site, triggering an acrimonious lawsuit a few months ago by Nevada officials who don't want Ohio's contaminat-

Control of Nuclear Cleanup

on relocated to their state.

Harry Swainson, Nevada's senior deputy attorney general, said the dirt would further contaminate a 20,000-year-old aquifer running along Nevada's eastern border that contains enough water to supply a million families for 800 years.

"We can't shame the federal government by stopping these shipments," Swainson said.

Among other problems, the dirt would be leaked through downtown Las Vegas, raising the risk that even a minor incident or spill would generate horrific publicity that could maim the tourist industry, Swainson said.

In many cases, the lawsuits and the risk of the Energy Department losing money in seemingly absurd ways.

The department is spending about \$100 million per year pumping water at the Savannah River plant in South Carolina to maintain an artificial lake — solely to comply with state regulations that have designated it as a wetlands.

The pumps originally drew cooling river water for nuclear reactors, which have been shut down for years. The water is discharged into what is known as "L Lake"—an eyesore that has nevertheless attracted fish and alligators.

By shutting the pumps, the lake would go dry and kill the fish. To comply with state regulations, the Energy Department must continue pumping 25,000 gallons of water per minute into the lake, according to a Savannah River plant spokesman.

And at the Nevada Test Site, the department has yet to conduct an environmental study of about 1,000 bomb craters left from underground nuclear tests that created serious radioactive contamination in the water table, state officials complain.

To deal with such inconsistencies, the Energy Department is attempting to renegotiate the agreements, hoping to create a more realistic cleanup schedule.

Colorado Assistant Attorney General Daniel Miller said his state is being reasonable, talking with other states and federal

groups to find an alternative to court fights.

Nonetheless Colorado also brought an administrative complaint against the Energy Department for failing to meet a 1991 cleanup agreement at the Rocky Flats bomb plant. The federal department paid a \$2.8 million fine last summer.

Political battles between state congressional delegations for cleanup funds are rising, said Alvarez.

"That pressure is there and it is growing because of the amounts of money involved," he said. "Progress is measured by how much you spend."

But outsiders express it a different way: "It is pork, that's the cynical way of putting it," said Edward Merrow, president of Independent Project Analysis, a firm hired by the Energy Department last year. "Each site views getting their cleanup dollars in survival terms, and court orders help them with that survival ... by putting pressure on headquarters to keep money flowing."

Lab workers ignored rules in '93 accident

► The doses of plutonium were less than the EPA limit set for workers

BY JOHN FLECK
JOURNAL STAFF WRITER

1300

Los Alamos National Laboratory workers were not wearing their required respirators when two of the workers accidentally inhaled plutonium in January 1993, an Energy Department investigation found.

One of the workers inhaled enough plutonium

to receive a radiation dose equivalent to 180 chest X-rays in the year following the Jan. 19, 1993, accident, and the other received a dose for the same period equivalent to 210 chest X-rays, according to a laboratory report.

Los Alamos officials said that neither worker has suffered noticeable health problems as a result of their exposure.

While plutonium has been linked to cancer if inhaled, Energy Department and laboratory investigators argued there is little risk to the two people because the doses were less than the legal limit set by the federal Environmental Protection Agency for workers.

A report on the Energy Department's investigation shows that the workers were violating routine safety procedures.

The doses, according to laboratory estimates, were less than half the amount permitted by federal regulations for nuclear workers.

A report on the Energy Department's investigation, obtained through the Freedom of

Information Act, shows that the workers were violating routine safety procedures when the accident occurred.

In the following weeks, Los Alamos and the Department of Energy refused to release a copy of the investigation report.

The Energy Department provided the January 1993 report this week in response to March 1993 Freedom of Information Act request filed by the Journal.

Los Alamos voluntarily provided the Journal this week with a second report summarizing the radiation doses received by the workers.

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Lab workers ignored rules in '93 accident

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According to the two reports, tests done immediately after the leak showed that two of the eight people working in the area had inhaled plutonium, a radioactive nuclear material used in nuclear weapons.

Urine and feces were collected from the two workers and analyzed for plutonium content to determine how much they had inhaled, the reports said.

That data was used to estimate the workers' radiation doses, said Joe Graf, radiation protection program manager at Los Alamos.

Inhaled plutonium stays in the

body, sometimes settling in bone tissue, emitting radiation for the rest of the person's life, said Gene Runkle, director of the health protection division at the Department of Energy's Albuquerque Operations Office.

The estimated level of radiation emitted from the plutonium in the workers' bodies over the next 50 years is higher than the amount of radiation they will receive as New Mexico residents from natural radiation in the soil, outer space and other sources, according to Rick Brake, head of the laboratory team that investigated the accident.

Plutonium, a metal used to provide a major portion of a nuclear weapon's blast, is highly radioac-

tive. Workers generally handle it in sealed boxes, called glove boxes, fitted with leaded glass windows and sealed portholes with leaded rubber gloves.

The workers use the gloves to reach in and work with the plutonium without being exposed to it.

According to the Department of Energy investigation report, the eight employees were working in the plutonium laboratory area without respirators, despite a leak earlier in the week in the plutonium glove box they were using.

According to the investigation report, the workers were trying to clean up after a previous experiment in one of the glove boxes when a leak developed, spewing plutonium

into the room.

Six days earlier, a radiation alarm in the same room had tripped. But tests done the next day found no leak in the glove box, so workers attempted the cleanup operation without respirators, according to the report.

Laboratory and Energy Department officials said they do not believe the workers are at risk as a result of their exposure. Both continue to work at the laboratory in radiation-related jobs, said Brake.

But Graf acknowledged that scientific uncertainty still exists about the risks of low-dose radiation and that Energy Department and laboratory safety procedures attempt to eliminate all radiation risk.

OCT 24 1994

New Mexico Press Clipping Bureau
Albuquerque, NM

LANL Makes Portable N-Detectors

THE ASSOCIATED PRESS

Scientists at Los Alamos National Laboratory say they have developed portable radiation detectors that could usher in a new era of security and protection.

The detectors can quickly find even small quantities of radioactive elements and can inform inspectors as well as the public about the danger or safety of their environment, the lab said.

The advances were outlined here this week at the 28th annual International Carnahan Conference of Security Technology.

The radiation detectors are expected to advance the areas of environmental

assessment, home radon monitoring and global nuclear nonproliferation, scientists said.

The devices could be used to help catch nuclear material smugglers or find invisible, naturally occurring radiation in homes.

"We believe this could lead to \$50 or less home radon detectors, so that some homeowners who need it can afford it," said LANL physicist James Koster. "It might be something that looks like a smoke detector, only you detect ions (charged elements) in the air directly."

He said the portable detector is small enough to be carried on a shoulder strap by nonproliferation inspectors of the International Atomic Energy Agency.

Koster said the detectors have helped

the U.S. Department of Energy quickly assess radioactive contamination of its nuclear bomb making and research facilities, including at LANL and Sandia National Laboratories.

"The big ones are at Rocky Flats (Colorado), Savannah River (South Carolina) and Hanford (Washington), not to mention all the Department of Defense bases which in some cases may be worse," he said.

He said the most practical device so far is a flat-plate detector mounted on the shovel arms of a small tractor. The mobile instrument is being used to make environmental assessments of suspected contamination sites at LANL and other DOE facilities, Koster said.

BATON ROUGE MORNING ADVOCATE, October 22, 1994

Mountains out of junk science

There are two "environmental" stories in The Advocate (Oct. 13) that deserve comment: the water leak at Week's Island and the EPA's proposed ban on pesticides.

The water leak at Week's Island mine, where oil reserves are stored, is estimated at two gallons a minute. There are few salt mines in the Gulf Coast that have not experienced leaks of this magnitude.

These leaks are routinely grouted, and later there are new leaks that have to be grouted. So what? The integrity of the mine and the safety of the people who work in it are not threatened. Talk of land subsidence because of a leak of this magnitude is absurd.

This is a minor operating problem, if that's all the leakage experienced, and there is no reason to move the oil somewhere else because of this. This is making a mountain out of a molehill, based on my experience with ground water in salt mines.

Then there is the EPA settlement that could lead to pesticide bans. The whole thing is based on the "junk" science which got Congress to pass the Delaney Clause—zero tolerance of harmful substances at a time when if you could measure one part per million, you were doing well. Now

we can measure parts per trillion (a standard a million times more sensitive than tests could measure when the Delaney Clause was adopted).

And, based on the erroneous assumption of zero tolerance to harmful material, the EPA is about to increase the cost of all foods that are now produced with the use of pesticides—Carol Browner, EPA administrator, is totally uninformed of the economic consequences, since there was no economic evaluation of the costs and benefits. Pesticides increase production of agricultural commodities at a minimum price.

There is no proof that the traces of pesticide that have been detected will have any effect on people — it is assumed that they will, hence the proposed ban. The court should be made aware that even table salt is a hazardous substance if you eat a lot of it — but it doesn't hurt in small quantities.

This whole matter is based on "junk" science, and I await Bob Anderson's more complete analysis since this letter is as short as I can make it.

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LANL violating federal laws, report says

No immediate danger, EPA document claims

By KEITH EASTHOUSE
The New Mexican

Los Alamos National Laboratory is violating numerous federal environmental laws, but none of the violations poses an immediate danger to public health or the environment, according to a 58-page report by the U.S. Environmental Protection Agency.

The report, which has just been released, is based on a two-week investigation conducted by the EPA last year.

The report echoes a criticism made by a Department of Energy inspection team in 1991 by saying that laboratory management has failed to address environmental problems at the lab adequately.

"Despite management's efforts, (there is still a) lack of individual accountability, (a) failure to establish effective laboratory-wide communications and lack of an effective system to ensure compliance with environmental regulatory requirements," the report said.

Walt Helmick, an EPA official in Dallas, said that a reorganization of the laboratory's management structure last year has not solved a basic problem: responsibility for ensuring environmental regulations are met has not been sufficiently centralized.

"A lot of environmental management functions have been redistributed, but there is still no clear-cut chain of responsibility," Helmick said.

VIOLATIONS

According to an Environmental Protection Agency report, Los Alamos National Laboratory is out of compliance with several federal environmental laws:

- Nineteen sections of the Resource Conservation and Recovery Act, which governs the management of hazardous waste.
- Nine sections of the Clean Water Act.
- Six sections of the Toxic Substances Control Act.
- Four sections of the Clean Air Act.
- One section of the Safe Drinking Water Act.

Keith Easthouse

Alan McMillan, deputy director of the lab's Environmental, Safety and Health division, said the report did not uncover anything that the laboratory already doesn't know.

"There is nothing in here that was not known to us through our own internal reviews," McMillan said.

Helmick said the EPA is in the process of determining whether any of the violations are serious enough to justify taking enforcement action against the lab.

Such action could result in financial penalties or in establishing deadlines by which the lab must come into compliance, Helmick said.

Both Helmick and Jim Danneskiold, a laboratory

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spokesman, said many of the violations are minor and involve failures of procedure.

For example, during the EPA inspection, laboratory workers transported hazardous wastes without the proper paperwork describing the nature of the wastes.

Some of the violations, such as a leak in the lab's radioactive wastewater treatment facility, already have been remedied, Danneskiold said.

He said that other violations, such as several locations where the laboratory is discharging treated wastewater into canyons without proper federal permits, are being fixed.

Danneskiold said the laboratory is in the midst of an ef-

fort to consolidate the discharge points that should be finished by 1996. He said the discharges themselves go into dry areas and do not threaten groundwater.

One "area of concern" cited by the report is that the lab cannot prove to EPA's satisfaction that a 4.5-mile pipeline that runs to the lab's radioactive wastewater treatment plant does not leak.

Danneskiold said that the problem has to do with instrumentation. "We can't absolutely prove that every drop of effluent pumped" gets to the plant, Danneskiold acknowledged.

He said the effluent is treated prior to being pumped, which reduces its pollution hazard.

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New Mexico Press Clipping Bureau

Questionnaires Seek Lab Cleanup Comment

LOS ALAMOS — The U.S. Department of Energy and Los Alamos National Laboratory have mailed questionnaires seeking comments from the public about the lab's environmental cleanup and waste-management efforts. 800

Questionnaires were mailed this month to about 500 citizens, business leaders, elected officials, environmental groups, homeowner associations and others, the lab said.

The survey includes a fact sheet describing the Energy Department's five-year plan for environmental restoration and waste management.

It asks people to list concerns about the environmental restoration and waste-management programs and seeks suggestions for improvements in managing the programs.

The lab said the programs' objectives are to reduce the risk to the public and to the environment, to eliminate potential for future environmental contamination and to address known and potential contamination from past laboratory operations.

Patricia Trujillo-Oviedo of the lab's community-relations group said the lab and the Energy Department will evaluate questionnaire results and will use them to set priorities and budgets for future environmental and waste-management projects.

ALBUQUERQUE JOURNAL
ALBUQUERQUE, N.M.

MAR 25 1992

New Mexico Press Clipping Bureau
Albuquerque, N.M.

Tumor-List Initiator Wants Canyon Closed

By Tamar Stieber

400

JOURNAL NORTHERN BUREAU

SANTA FE — The man whose list of brain tumor victims spurred a federally funded study of cancer in Los Alamos has asked a federal health agency to close public access to a popular Los Alamos canyon because of possible radiation exposure.

In a letter dated March 18, Tyler Mercier sent documentation to the Agency for Toxic Substances and Disease Registry which he said shows that "the current level of (plutonium) contamination in Acid Canyon is above federal standards" for children ingesting dirt there.

Mercier, father of a 22-month-old son, said Tuesday he knows from experience that children sometimes eat dirt, which he said increases 20 times the risk factor for contamination.

Mercier noted in his letter that children have access to Acid Canyon from paths connecting it to three nearby playgrounds. Five other pedes-

trian entrances lead directly into the canyon, he wrote.

"Acid Canyon should immediately be closed to the public and warning signs posted," Mercier, 34, said in the letter.

Paul Charpe, chief of the agency's Energy Facility Assessment section, said it received Mercier's letter and will decide today whether to conduct a "health consultation" for Acid Canyon.

Charpe said such an evaluation would take anywhere from a few days to about a week. The agency could recommend a course of action to the U.S. Department of Energy Department and/or the U.S. Environmental Protection Agency.

Acid Canyon, a tributary of the much larger Pueblo Canyon which bisects Los Alamos, is so named for the untreated and treated liquid nuclear waste Los Alamos National Laboratory dumped there for 20 years.

Mercier and others suspect radioactive or chemical emissions from the laboratory, which

developed the world's first atomic bomb, may be responsible for what scientists have determined to be some higher-than-expected cancer rates in Los Alamos, including brain cancer.

But the majority on a steering committee overseeing a study of all cancers in Los Alamos agreed that nothing at this time points to the laboratory as a culprit. The New Mexico Department of Health study, funded by the Energy Department — parent agency to the laboratory — was prompted by a brain tumor victim list Mercier began compiling in August 1990.

Mercier said in his letter that despite two major cleanups of Acid Canyon in 1966 and 1982, the canyon still has some of the highest plutonium levels of publicly accessible areas in New Mexico.

The Agency for Toxic Substances and Disease Registry, a branch of the U.S. Public Health Service, is deciding whether it will undertake a detailed health assessment of Los Alamos to determine if residents are in danger from environmental exposure.

R MAR 26 1992

New Mexico Press Clipping Bureau

Agency To See If Acid Canyon Poses Danger

By Tamar Stieber

800

JOURNAL STAFF WRITER

A federal health agency will begin today to evaluate whether a canyon in which Los Alamos National Laboratory dumped radioactive waste for 20 years poses a danger to the public, a spokesman said.

The Agency for Toxic Substances and Disease Registry, a branch of the U.S. Public Health Service, will review data on levels of radioactive plutonium in Acid Canyon, now a popular Los Alamos recreation spot.

Depending on its findings, the agency may recommend a particular course of action to the U.S. Environmental Protection Agency or the laboratory's parent agency, the U.S. Department of Energy.

"We're pulling together the folks we have that know the most about plutonium in the soil," said Mike Greenwell, spokesman for the Atlanta-based agency. "They will look at the levels indicated in the data presented to us and perform a health consultation."

Greenwell described a health consultation as "one of the mechanisms to quickly provide someone a health perspective on specific data they

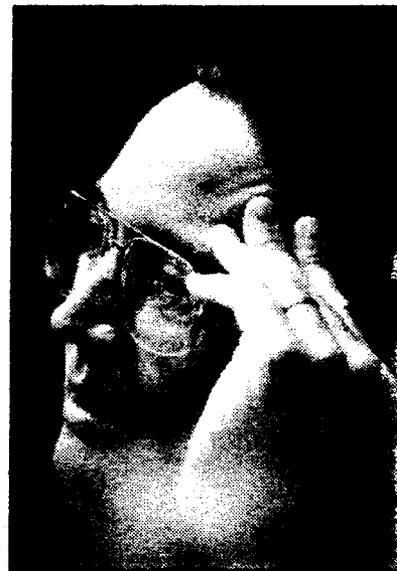
send to us." It's also used to make rapid recommendations on sites that may present immediate hazards, he said, explaining the process generally takes no longer than two weeks.

Greenwell said most health consultation requests and supporting data come from the U.S. Environmental Protection Agency or state health departments. In this case, he said, the request came from Santa Fe sculptor Tyler Mercier, a former Los Alamos resident who believes that activity from Los Alamos National Laboratory may be causing excess cancers in the county.

Mercier, 34, said in his March 18 letter that Acid Canyon should be closed to the public. Among the data he sent with the letter was a laboratory chart showing higher levels of plutonium in Acid Canyon than in other Los Alamos canyons where the laboratory released radioactive waste.

Mercier claims that for any children who eat dirt while playing in Acid Canyon, the contamination risk factor would increase by 20, which he said amounts to more than federal standards for plutonium.

Plutonium is a man-made isotope



**Tyler Mercier
Says canyon should close**

used in nuclear weapons and as fuel for nuclear reactors. It has a half-life of 24,360 years.

Greenwell said that while Mercier's request does not appear to be an emergency, "We don't consider it a frivolous request by any means."

ATSDR officials plan tentatively to be in Los Alamos the third week in April as part of a process to determine whether the agency will embark on a full-scale assessment of environmental dangers in Los Alamos, Greenwell said.

Alan Stoker, who wrote a report on Acid Canyon for Los Alamos National Laboratory, declined to talk to a Journal reporter Wednesday.

"I think he'll tell you what the lab has always said — that the levels (of plutonium) are so low they don't present a problem," laboratory spokesman John Gustafson said.

K MAR 28 1992

New Mexico Press Clipping Bureau
Albuquerque, N.M.

Group To Sue Los Alamos Lab Over Emissions

Tamar Stieber ⁴⁰⁰

JOURNAL NORTHERN BUREAU

SANTA FE — A Santa-Fe based nuclear watchdog group on Friday filed its intent to sue Los Alamos National Laboratory to force it to comply with the federal Clean Air Act, even if that means shutting down the laboratory.

In a letter dated March 27 and sent by registered mail to various agencies, Concerned Citizens for Nuclear Safety said it will seek an injunction against the continued operation of laboratory sites that don't comply with portions of the Clean Air Act regulating federal standards for radioactive air emissions.

If the laboratory doesn't comply within 60 days, CCNS will sue the U.S. Department of Energy, which owns the lab, and the University of California, which operates it, said John Stroud, co-director of CCNS's Project for the Economic Conversion of Los Alamos National Laboratory.

"We're putting them on notice that we insist on a cessation of all non-complying releases and on fines and penalties for all unlawful conduct," Stroud said at the afternoon news conference. "If they

cannot operate in accordance with the law, we will seek an injunction in federal district court."

CCNS is calling the violations "massive and continuing" and claims the laboratory and the DOE have failed to make good-faith efforts to remedy the violations.

"The lab is working with the EPA (U.S. Environmental Protection Agency, which regulates the Clean Air Act) right now to put into effect a plan to bring us into compliance," said laboratory spokesman John Gustafson. "A draft of a federal-facilities compliance agreement along with a remedial-action plan are in EPA's hands right now."

Stroud noted that the EPA first released the proposed regulations in March 1989 but the lab only recently came up with a compliance plan. Had the lab instituted a program in December 1989, when the act went into effect, it could have amortized the estimated \$200 million price tag over time, he said.

Gustafson said the laboratory acknowledged in 1990 that it might be out of compliance with the Clean Air Act and drafted a letter to that effect in 1991.

"So we did not ignore the issue for two years and then do something," he said.

At the news conference, Stroud said the lab's admission is not enough. "They still have to follow the law," he said.

Gustafson called untrue CCNS allegations that the DOE and the

laboratory lied to the public and to the EPA by representing in a 1990 annual report some 1988 monitoring that the lab called "measured radioactive releases from LANL in 1990."

Stroud had presented at the news conference some internal lab memos stating that a 1990 analysis of radioactive emissions from the Los Alamos Meson Physics Facility was based on 1988 numbers because, one of the memos says, "there were no adequate composition measurements for 1990."

LAMPF houses the laboratory's linear accelerator and is responsible for about 90 percent of the laboratory's airborne emissions.

"Because of the undisclosed use of 1988 monitoring data as a substitute for 1990 data, with no qualification or explanation, the 1990 annual report is materially false," CCNS's letter states.

Gustafson said the 1988 measurements were the "best measurements available of the composition breakdown of emissions from LAMPF."

He explained that the laboratory accurately reported the overall 1990 LAMPF emissions but extrapolated the percentage breakdown of specific radioactive components by using the 1988 percentages.

When asked why there was no explanation to that effect in the annual report, Gustafson said it "seems like a small point."

"We honestly admit that these composition measurements are from 1988," he said. "It doesn't explicitly say it in the report, but we admit it freely and willfully under questioning."

Stroud said that because the 1990 data are based on "unreliable" data, there's no scientific basis for the lab's claim that the radiation dose to the public is below the federal 10 millirem limit. He referred to a DOE chart showing that the laboratory's exposure dose is just below the 10 millirem limit — higher than any of the DOE's other nuclear weapons laboratories.

Connie Soden, director of the Environmental Protection Division at the DOE's Albuquerque office, said the DOE has confidence in the laboratory's ambient air monitoring system, which gives quarterly and yearly readouts. She acknowledged, however, that the system cannot be used to demonstrate compliance with EPA standards.

CCNS's allegations are the same as those made by LANL scientist David Nochumson, whom the U.S. Department of Labor granted official "whistleblower" status last October after he claimed his supervisors harassed him for pointing out that the laboratory was not complying with the Clean Air Act.

Journal North
Albuquerque, NM

X JUL 14 1992

New Mexico Press Clipping Bureau

Management Of LANL Stirs Protest

By Tamar Stieber

JOURNAL STAFF WRITER

800

A Santa Fe nuclear watchdog group says the University of California should be more responsible in managing Los Alamos National Laboratory or "step aside."

Concerned Citizens for Nuclear Safety made those and other comments in a July 13 letter to the board of regents of the University of California, whose contract with the U.S. Department of Energy to operate the laboratory will run out in September.

No one at the university could be reached Monday evening for comment. Attempts to contact LANL deputy director Jim Jackson, who is leading contract negotiations for the laboratory, were also unsuccessful.

Letter author Jay Coghlan, co-director of CCNS's Project for the Environmental Conversion of Los Alamos National Laboratory, said

MORE See NUCLEAR on PAGE 3

Nuclear Watchdog Group Protests Management of LANL

CONTINUED FROM PAGE 1

Monday he sent the seven-page letter to the regents by fax that afternoon.

In the letter, Coghlan said the DOE's nuclear weapons complex, of which Los Alamos is a part, "has been disgraced by its record of environmental degradation caused by a management policy that has historically valued aggressive research, development, testing and production above environmental considerations."

His examples included:

- Suits against the university and the laboratory by brain tumor victims or their relatives alleging negligence in managing radioactive and chemical wastes.

- An independent finding that Los Alamos has a thyroid cancer rate almost four times the national rate in recent years.

- Laboratory violations of the federal Clean Water and Clean Air acts.

- A DOE environmental checklist

showing that the lab doesn't meet regulations for 149 radioactive air emissions.

- Allegations of harassment by a lab scientist who drafted a plan to bring the laboratory into compliance for radioactive air emissions.

- Lab violations of federal regulations for storage of mixed (radioactive and chemical) waste.

- A University of California suit charging the state Environment Department isn't authorized to monitor mixed waste incineration at the lab.

"The regents should consider the reputation of the university and its legal liability in its management of an institution that is so blatantly out of compliance with environmental law," Coghlan writes.

Coghlan calls it "ironic" that Los Alamos National Laboratory, along with the two California laboratories, are considered the "crown jewels" of the DOE's nuclear weapons complex.

"In many respects, LANL is the worst offender of all Department of Energy facilities," he wrote.

The letter calls it "inappropriate" for an institution of higher learning to manage "an inherently secret entity." He suggests the regents "consider the reputation of the university and its legal liability in its management of an institution that is so blatantly out of compliance with environmental law."

When asked Monday who CCNS would recommend to manage the lab if not the University of California, Coghlan said Monday, "That's a really difficult question, who might do a better job. All we know is that it's clear there's a need for a greater degree of responsible management."

The letter also accuses the university of favoring White men in top management and ignoring the state's "tri-cultural heritage" in the scientific and technical ranks.

"Furthermore," writes Coghlan, "UC demonstrates no concern for

economic equity in northern New Mexico."

In his letter, Coghlan compares Los Alamos County, which has the highest per capita income in the state, to neighboring Rio Arriba, "where per capita income is one-third that of Los Alamos County."

He points out that Los Alamos receives more dollars per capita than any other New Mexico county and keeps nearly two-thirds, which he said, "dovetails with its cultural isolation from the surrounding areas."

Coghlan calls LANL's five-year, \$750 million budget plan an "unwise investment in a shrinking market" because it dedicates 87 percent of its budget to weapons research and support.

The University of California receives \$12 million a year to operate the Los Alamos nuclear weapons laboratory and its California counterpart, the Lawrence Livermore Laboratory in Livermore, Calif.

Los Alamos Lab, EPA Join Forces Against State

By Tamar Stieber

800

JOURNAL NORTHERN BUREAU

Los Alamos National Laboratory and one of its regulators, the U.S. Environmental Protection Agency, are joining forces — at least philosophically — against the state Environment Department.

The state is demanding that the nuclear weapons laboratory adhere to what the two federal groups consider overly stringent regulations for discharging pollutants into the canyons of Los Alamos.

"We're getting double-teamed on this," Jim Piatt, chief of the Environment Department's Surface Water Quality Bureau, said Wednesday. "I'm not comfortable with this at all, quite frankly."

At stake is the laboratory's pending National Pollutant Discharge Elimination System permit, which is issued by the EPA — but only after certification from the state Environment Department.

The state agency says it is simply trying to protect tributaries that might feed lab pollutants into the Rio Grande.

Lab spokesman John Gustafson stressed that most of the laboratory's "outfalls" — 89 of 138 — discharge non-toxic water.

"We're not talking major industrial pollution in the canyons," he said.

What the laboratory and the EPA find particularly troubling is the state's requirement that the lab apply the same water quality standards to discharges in dry arroyos or ephemeral (short-lived or seasonal) streams as for fisheries.

"As far as I've been able to determine, virtually none of this ever leaves the main acreage of Los Alamos (National Laboratory property)," said permit writer Fred Humke of the EPA's Dallas office.

But Piatt said his department has no data indicating the streams in question are in fact ephemeral. Even the "tiger team" the laboratory's parent agency, the U.S. Department of Energy, sent out last year to inspect the lab's health, safety and environmental practices, referred to LANL documents showing that some of those streams

reach the Rio Grande, he said.

Piatt said the EPA always has listed those streams as governed by the same water-quality standards as fisheries.

Gustafson said the lab "disagrees" that the streams and dry arroyos in which the lab's 138 discharge points are located could be considered fisheries.

"They look at what the Rio Grande is used for and apply those same standards way, way uphill," Gustafson said. "It's a lack of agreement over how to characterize the canyons."

Piatt said the pending permit is the third the EPA has issued to the lab that classifies the streams as fisheries. He also said the state doesn't have the resources to do a study that could change those classifications.

"Consequently," he said, "we have no other alternative but to call them tributaries of the Rio Grande and to protect them."

Humke, however, said the state has expanded its requirements "from no uses to all uses."

"The state is insisting that, while none of their standards applied in ephemeral reaches before, now they're saying everything applies," he said. "We can't see it."

Piatt said he prefers to err on the side of caution — both for legal reasons and "because of the kinds of work and research done up there" in Los Alamos.

"Pollutants discharged from LANL are not discharged anywhere else in the state," he said in an earlier interview. "Consequently, we have to do a much better job and a much more thorough review."

He added, "When you are dealing with a permit that is as complex as the one from Los Alamos National Laboratory, there are items out there that are overlooked — items that we feel are necessary for the permit to be protective of the streams."

Because of the large number of outfalls and the variety of pollutants — including radioactive material, heavy metals, human sewage and organic compounds such as solvents — at the Los Alamos laboratory, Piatt called the LANL

permit "fascinating."

HOW TO COMMENT

Interested parties have until July 16 to request a public hearing from, or send comments to, the U.S. Environmental Protection Agency about Los Alamos National Laboratory's pending National Pollutant Discharge Elimination Systems permit.

The EPA will hold a public hearing if it finds a "significant degree of public interest," according to procedures in the Federal Register. The agency will notify each person who sends a written comment or requests a hearing of its final decision on the permit.

All comments or requests should be sent in writing to: Ellen Caldwell, Permits Branch (6W-PS), U.S. Environmental Protection Agency, 1445 Ross Ave., Dallas, Texas 75202-2733. For further information, call (214) 655-7190.

"It has literally been described as the second most complicated permit in the country," he said, putting at No. 1 the Oak Ridge National Laboratory in Tennessee, part of the DOE's nuclear weapons complex.

Piatt said that while radioactive discharges would most likely "touch the public nerve," he thought heavy metals should be of equal concern.

"They (the public) are not as familiar with those concerns as my staff and may not be aware of their significance," he said.

Piatt said there are probably more discharge points at the laboratory that have not been charted.

"The point, in all honesty, is that every time we or they walk in a canyon, we'll find additional discharges," he said. "It's going to take two staff people sitting down for 30 days to get on top of this."

Humke said the state can put any conditions it wants into the permit but it will have to defend them to the state Water Quality Control Commission.

"And I'm sure the University of California will seriously challenge them," he said.

The University of California over-

Los Alamos

Lets be sure they
don't try this with us

ates Los Alamos nuclear weapons laboratory under a contract with the lab's parent agency, the U.S. Department of Energy.

Piatt pointed out that it was the Water Quality Control Commission, of which he is one of nine members, that approved the state's water standards in question. As to a challenge from the University of California, he replied, "It's a real possibility."

The Environment Department is already embroiled in a legal dispute with the University of California and the DOE over an environmental permit regulating treatment of haz-

ardous waste at the laboratory.

The state has placed restrictions on hazardous waste the lab wants to burn in an incinerator that also burns radioactive waste. The Environment Department is concerned that the hazardous waste burning could trigger a release of radioactivity. But the university and the energy department insist the state has no authority over radioactive air emissions.

The EPA originally gave the state Environment Department 30 days to review a draft pollutant discharge permit it issued to LANL on

May 14 but has granted a 30-day extension — though July 16 — for the state and the nuclear weapons laboratory to hash out the terms.

The state last year rejected the first draft permit — primarily, Piatt said, because the laboratory included in its 3-inch thick application an "add-delete clause" allowing it to add discharge sites without public notice or state certification. }

Once approved, the pending permit will last two years instead of the usual five because of lab activities that may result in more and different types of discharges.



Albuquerque Journal

K JUN 30 1992

New Mexico Press Clipping Bureau

EPA Will Cite Los Alamos Lab

Radioactive Waste Storage Problem Has Halted Programs, Idled Workers

By John Fleck

JOURNAL STAFF WRITER

800

Los Alamos National Laboratory will be cited for storing radioactive chemical waste at the laboratory longer than permitted by federal regulations, an Environmental Protection Agency attorney said Monday.

The citation follows the laboratory's admission in early May that it is violating the law, said Bruce Jones, assistant regional counsel for the Environmental Protection Agency's Dallas office.

EPA regulations prohibit storing the waste, called "mixed waste" because it contains a mix of radioactive materials and dangerous non-radioactive chemicals, for more than a year, Jones said.

A laboratory spokesman characterized the citation as a procedural step in ongoing talks over mixed waste handling, but the laboratory's leading environmental critic said it is a sign that the Department of Energy-run nuclear weapons laboratory can't comply with the law.

Faced with the pending citation, laboratory officials have halted all work that produces mixed waste.

Some 40 research programs and 350 workers have been idled since May, laboratory officials say.

It would be the second major citation for the laboratory's radiation operations in the last year. Last fall, the EPA cited the laboratory for not monitoring

some of its radioactive air emissions.

The notice of violation comes amid hurried negotiations between EPA officials and representatives of Los Alamos and the Energy Department to come up with an acceptable plan to deal with the mixed waste.

Like most Department of Energy facilities around the country, Los Alamos has known for more than a year that it wasn't complying with the mixed waste regulations, but the Energy Department hasn't yet provided funding to enable construction of the treatment plants and disposal dumps required to obey the law.

The DOE and lab officials have been in intense negotiations with the EPA since early May, when an exemption to the mixed waste rules expired.

They are trying to come to terms on a formal agreement outlining steps the laboratory will take over the next decade to safely treat and dispose of the waste so it doesn't pose an environmental threat.

Energy Department officials initially said they hoped the agreement could be worked out by mid-June, but officials on both sides of the talks now say it could be at least another two months, and possibly three, before the idled Los Alamos workers can get back to their research.

Laboratory spokesman John Gustafson said the EPA citation was just a procedural step, and that the laboratory is working hard to comply with the law.

Jones wouldn't say when the citation will be issued.

Albuquerque Journal

DAUG 17 1992

New Mexico Press Clipping Bureau
Albuquerque, NM

DOE Eyes Los Alamos Lab for Plutonium Work

By John Fleck

JOURNAL STAFF WRITER

When a Department of Energy team convened in January to consider the future of U.S. plutonium supplies, it faced a simple fact: Los Alamos National Laboratory is the most capable plutonium-handling site in the country.

Los Alamos can store plutonium, process the substance and make nuclear bomb parts out of it, according to a report from the January meeting.

And the DOE is considering Los Alamos

as the location for all three of those jobs, the report said.

While non-government experts have long contended Los Alamos was a likely candidate for the plutonium work, the task force report is the first DOE acknowledgment that such a possibility is under active consideration.

A move toward nuclear weapons production work could shift the New Mexico laboratory away from its traditional research and development role, the report acknowledged.

Los Alamos officials repeatedly have said

they oppose such a shift.

But faced with a surplus of plutonium and a shortage of options, the DOE may have no choice but to turn to Los Alamos, said Brian Costner, a South Carolina environmentalist and author of a separate, independent study of U.S. plutonium operations.

It will be months before the Energy Department makes public its plutonium plans.

Agency officials have not responded to written questions about their deliberations.

But the report from the January meeting of the DOE's Plutonium Strategy Task

Force Steering Committee, along with other documents recently made public, shed light on the agency's thinking.

What they spell out is that Los Alamos plays a central role in that thinking.

With no current plans to build more nuclear weapons, the DOE is scrambling to decide what to do with plutonium already made for bomb production.

Used at the heart of nuclear bombs, plutonium is a metal made in nuclear

MORE: See DOE on PAGE A5

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DOE Eyes Los Alamos for Plutonium Work

CONTINUED FROM PAGE A1

reactors and not found in nature. It is valued by bomb designers because it can release enormous nuclear forces when rapidly compressed by high explosives.

It also is extremely toxic, and nuclear weapons workers only handle it remotely, in sealed boxes with glove holes in the side called "glove boxes."

The size of the excess plutonium stockpile is secret, and all specific numbers were deleted from the copy of the report obtained by the Journal.

But most of the excess plutonium is believed to be in storage vaults at the department's Rocky Flats plant near Denver, according to Costner.

With the DOE closing Rocky Flats, the agency is faced with the question of where to send that plutonium.

The Rocky Flats closure also leaves the Energy Department without a place to do the plutonium processing necessary to build parts for nuclear bombs if the need arises in the near future.

The dominant option is Los Alamos, the plutonium task force report concluded.

On the question of storage, Los Alamos has by far the largest available plutonium storage capac-

ity in the nation — enough room for 60 tons in a new complex called the Nuclear Materials Storage Facility.

The next largest available storage site is an aging vault complex at Hanford Nuclear Reservation in Washington, with room for 20 tons.

The Energy Department's Savannah River Site in South Carolina, considered by Costner to be another leading candidate for storage, has room for little more than half a ton of plutonium, according to the report.

"It really dwarfs everything else," environmental engineer Jim Werner of the Natural Resources Defense Council said of Los Alamos' storage capacity.

Filling Los Alamos' vaults could take 250 or more truck trips, with the plutonium to be shipped in the same 18-wheelers used to ferry nuclear warheads around the country.

The vaults would have to be modified before they could store the Rocky Flats plutonium, but the work could be completed by 1995, according to the report.

That dovetails with the timeframe set out in the DOE's plan for the future of Rocky Flats, which envisions keeping the plutonium at the Colorado plant until 1995, while it decides where to store the plutonium from around the country.

On the question of processing

plutonium, which is necessary to prepare it for building nuclear bombs and to convert it into stable chemical mixes for storage, Los Alamos' abilities are matched only by Savannah River's, according to the report.

In addition, the Energy Department faces a decision on where to manufacture plutonium bomb parts if the need arises over the next decade.

For now, the Energy Department plans to keep two buildings at Rocky Flats in a "stand-by" capacity to build plutonium bomb parts if called upon. But the DOE, in a July report to Congress, says it will maintain that capability only until sometime next year.

After that, one option is to assign a "limited production" role to Los Alamos so the United States could maintain its ability to produce new nuclear weapons, according to the DOE task force report.

The only other option considered in the report is to retain backup production abilities at Rocky Flats for the next decade or longer, an option Costner said would be difficult to sell to Congress with Los Alamos waiting in the wings.

In the long run, the Energy Department plans to build a new Rocky Flats-type plant, to be completed sometime early in the next century.

The DOE gave another clue to its hopes for Los Alamos in a recently released environmental report that says plutonium-processing laboratories at Los Alamos should be upgraded "to allow curtailment of plutonium operations at the Rocky Flats plant."

The task force report acknowledges the likelihood that any site chosen for plutonium storage will face public opposition.

But a move to large-scale plutonium storage and possible nuclear weapons production work at Los Alamos also is likely to face opposition from the laboratory itself.

"We are an R&D (research and development) facility," laboratory spokesman John Gustafson said. "We are not a production facility."

AUG 19 1982

New Mexico Press Clipping Bureau
Albuquerque, NM

DOE Confirms Los Alamos Lab

By John Fleck

800

JOURNAL STAFF WRITER

The head of the Energy Department's environmental programs confirmed Tuesday that the DOE is considering Los Alamos National Laboratory as a backup site for plutonium work required to build nuclear weapons.

At a news conference in Albuquerque, Assistant Energy Secretary Leo Duffy acknowledged that Los Alamos is one of five sites across the country that could be designated as a backup plutonium production site for nuclear weapons by as early as next summer.

The other sites are at Savannah River, S.C.; Hanford, Wash.; Oak Ridge, Tenn.;

and the Rocky Flats Plant near Denver.

Of those five sites, Los Alamos has the most complete plutonium handling, processing and storage capabilities, Energy Department documents show.

It is the only place among the five with the current capability to build plutonium "pits," the radioactive metal spheres at the heart of nuclear weapons.

A sixth option, to leave the nation without nuclear weapons production capability until a new, permanent factory is built sometime after the turn of the century, will also be considered, Duffy said.

Los Alamos is not a candidate site for the new permanent plutonium plant.

Los Alamos spokesman Bill Heimbach said the laboratory opposes any shift to

production work, but left the door open to the possibility.

"We are a research and development facility and have no interest in going into the production business," he said Tuesday. "On the other hand, we realize that Los Alamos National Laboratory's facilities are owned by the Department of Energy and they have a final say on our mission."

The University of California, which manages Los Alamos for the Energy Department, also objects to production-scale plutonium processing and the manufacture of bomb parts at Los Alamos, a university official said this week.

"The university has taken the stance all along that it doesn't get in the business of manufacturing nuclear weapons," said

Could Get Plutonium Work

Tommy Ambrose, head of the university's Office of Laboratory Affairs.

But Ambrose did say the university could turn over management of weapons production to a private company.

The question of where to build plutonium parts for nuclear weapons arose after the Energy Department's Rocky Flats Plant in Colorado, where the work was done in the past, was closed because of environmental and safety problems.

Duffy confirmed that plutonium processing is also being considered for Los Alamos, but would not comment on plutonium storage.

Ambrose said the University of California has not taken a position on the question of storing plutonium removed from Rocky

Flats at Los Alamos.

According to a survey in March, conducted for Los Alamos National Laboratory by the University of New Mexico Institute for Public Policy, found 51 percent of New Mexicans polled opposed the idea of expanded nuclear weapons work at Los Alamos, said laboratory spokesman Heimbach.

Thirty-six percent of the 557 New Mexicans surveyed supported expansion of Los Alamos' nuclear weapons work, Heimbach said. The poll's margin of error was plus or minus 5 percentage points.

"I predict a firestorm of public opposition," said John Stroud, of the Santa Fe-based Concerned Citizens for Nuclear Safety.

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Albuquerque Journal

DAUG 12 1992

New Mexico Press Clipping Bureau
Albuquerque, NM

N-Waste Plant Inferior, Could Fail, Lab Says

By John Fleck

JOURNAL STAFF WRITER

Los Alamos National Laboratory's aging radioactive waste water treatment plant lacks modern safety features, is in danger of leaking and violates emission standards, according to documents and interviews with laboratory officials.

Failure of the plant is possible, which would shut down major laboratory projects, according to a Los Alamos budget document obtained by the Journal.

The laboratory is pushing for a new plant, but that could be 10 years and \$100 million away, Los Alamos spokesman Jim Danneskiold said.

Among the problems listed in the document are:

- Tanks and pipes for holding and moving liquid radioactive waste are in danger of leaking.

- The plant is failing to fully clean

waste, meaning discharges into a laboratory canyon do not meet current radiation standards.

- Lack of air filters to prevent radioactive materials from escaping.

- The building does not meet standards for withstanding earthquakes or severe weather.

Officials at the laboratory and the Department of Energy, which funds and directs work at Los Alamos, say the plant is not leaking, and there is no threat to public health and safety.

But the recently written planning document said a possible plant failure could halt major operations, such as plutonium processing; research and development work supporting Energy Department work around the country and environmental cleanup work, which produces radioactive waste.

MORE: See N-WASTE on PAGE A7

N-Waste Plant Inferior, Could Fail,

CONTINUED FROM PAGE A1

The document describes the current plant as "not reliable," and adds, "Department of Energy/Los Alamos National Laboratory missions (are) in jeopardy."

Perched behind a fence on one of Los Alamos' long fingerlike mesas, the Radioactive Liquid Waste Treatment Facility is linked by a network of pipes to buildings throughout the laboratory that produce liquid radioactive waste.

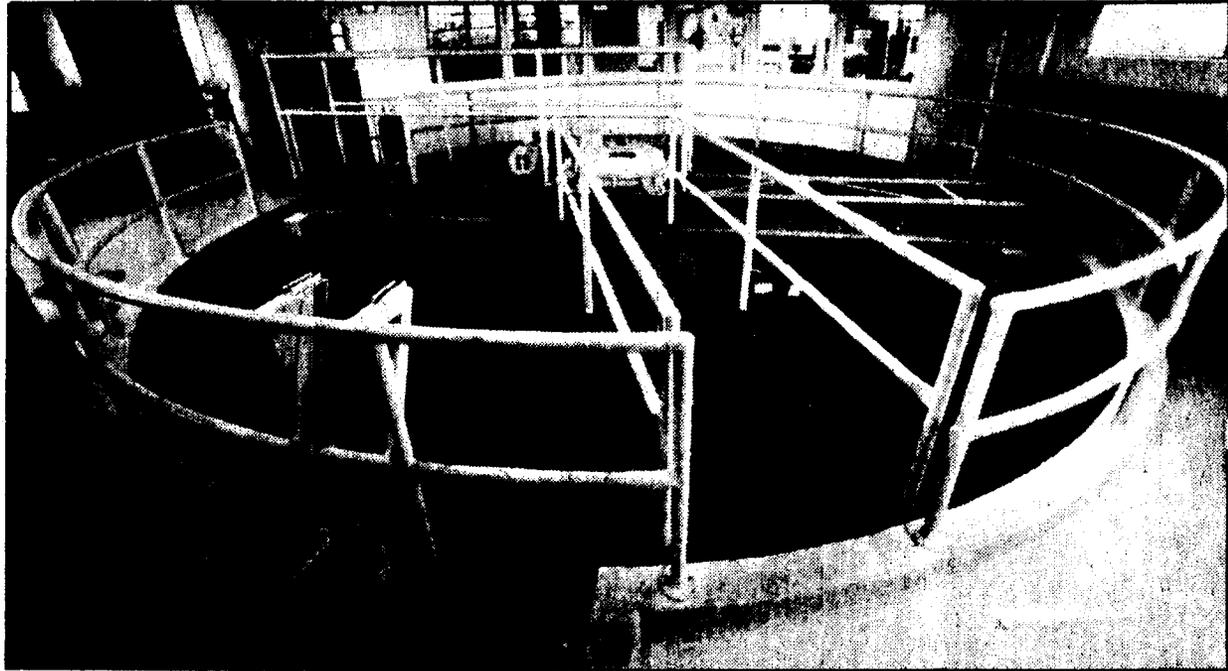
Using a process similar to traditional sewage treatment, the plant separates radioactive material from the water.

The radioactive material is put in barrels and sent to a laboratory waste storage and disposal area. Leftover water is piped to Mortandad Canyon, a small canyon that threads down between laboratory mesas to the Rio Grande.

One of the plant's chief problems is that its aging equipment cannot remove all the plutonium and other radioactive materials from the water, which means soil on the canyon floor has been contaminated with traces of radioactive materials, according to laboratory environmental reports. The canyon is on lab property and not open to the public.

Los Alamos studies say none of the radioactive discharge has left laboratory property or reached the Rio Grande.

The treatment plant's problem, said Jerry Bellows, manager of the DOE's Los Alamos Area Office, is that modern nuclear safety and environmental standards are tight-



JOURNAL FILE

Los Alamos National Laboratory says its aging liquid radioactive waste treatment plant lacks

safety features and violates environmental rules.

er than those in force when the plant was built.

"The facility is 30 years old," Bellows said. "The technology is 30 years old. The stringency of the environmental requirements has increased."

Waste water discharged from the plant exceeds current Energy Department standards for plutonium and americium, two highly radioactive substances regularly used in the nuclear weapons work done at Los Alamos.

The plant also does not meet federal Environmental Protection

Agency rules requiring air vents to be strictly monitored to detect any radioactive emissions, according to the planning document.

It says the plant lacks systems to prevent stray radioactive dust from escaping, as required by Energy Department regulations.

Also, pipes used to transport waste to the plant and tanks used to store it before treatment are old and vulnerable to leaking, the document said.

There has been one identified leak at the plant, in August 1990, which laboratory officials said at

the time contaminated only dirt beneath the plant building, according to Danneskiold.

Built to 1960 building codes, the plant does not meet current seismic safety standards, the document said. Danneskiold said laboratory records show no significant earthquake damage at the laboratory since it was built in the 1940s.

He estimated the cost of a new plant at \$100 million. With the environmental reviews required before construction, it would take 10 years to build, he said.

But there is no guarantee the

Lab Papers Say

Energy Department will fund it, said Bellows.

"We're competing for the same resources with other DOE facilities around the country," Bellows said.

So far, he said, a replacement plant has been given a low funding priority because there is no evidence of an immediate threat to public or worker health and safety, Bellows said.

The Energy Department is spending \$200,000 on a study of technologies that could be used in a new plant, and another \$350,000 to study safety issues at the treatment plant and surrounding buildings that deal with radioactive waste.

John Stroud, of the Santa Fe environmental group Concerned Citizens for Nuclear Safety, com-

plained about the plant's failure to meet environmental laws.

"This facility is in violation of environmental laws governing all media — water, air and ground," Stroud said in an interview. "When will we get compliance instead of excuses?"

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New Mexico Press Clipping Bureau
- Albuquerque, N.M.

Los Alamos reports soil contamination

By **LAWRENCE SPOHN**

Staff reporter

800

Heavy chromium contamination has been detected in the soil near a leaking nuclear-reactor coolant pipe at Los Alamos National Laboratory, authorities said.

It is unclear what health threats the chromium contamination poses, said Bob Charles, who is directing the team trying to repair the Omega West Nuclear research reactor in Los Alamos.

But he did acknowledge that the levels measured are well above standard.

About 167 parts per million were found in soil that would normally have a level of less than 1 part per million, he said.

The contamination was detected beneath asphalt paving near the cooling tower, he said.

Chromium, a heavy metal, is toxic but is part of the chemical compound commonly used in commercial cooling towers to kill algae, Charles said.

The reactor remains shut down since a leak was discovered last month.

Workers believe they have isolated the leak to a portion of the 104-foot-long pipe near the cooling tower.

The pipe normally carries water, radioactively contaminated with tritium, to the cooling tower and back into the reactor core.

Workers as early as today may begin removing its 33 highly radioactive fuel elements to a protective holding pool next to the reactor core.

Charles said this safety step continues to await approval, as would a more drastic step of further moving the fuel elements to the lab's more protective Chemistry and Metallurgy Research building.

That move, which would require closing some Los Alamos roads for safety, would be undertaken if workers discovered other problems or leaks closer to the reactor itself.

Whether to proceed with the repairs will be determined by the Department of Energy, which will assess whether the isotope production program is worth the repair costs.

Charles also reported that tritium contamination levels have dropped dramatically in shallow groundwater tested by the laboratory.

Originally measured at more than three times the federal drinking-water standards, Charles said measurements closest to the reactor now show the water is well within federal standards.

MAR 3 1993

New Mexico Press Clipping Bureau
Albuquerque, N.M.

Chromium Levels Above Normal In Soil Near Lab Nuclear Reactor

By Tamar Stieber

JOURNAL STAFF WRITER

LOS ALAMOS — While tritium levels have dropped markedly near Los Alamos National Laboratory's nuclear reactor since workers stopped a reactor leak, the laboratory has discovered chromium in soil at the reactor at levels above normal, a scientist said Tuesday.

Bob Charles, leader of a lab team trying to restart the Omega West reactor, said during a press briefing that soil samples showed chromium at 167 parts per million. A potentially toxic heavy metal, chromium usually occurs at less than one part per million in soil, he said.

The chromium came from a product used in the reactor's cooling tower to reduce corrosion from algae, Charles said.

Dennis McQuillan of the state Environment Department's Groundwater Bureau said 167 parts per million sounds high enough to warrant an extraction test.

If the extracted chromium exceeds 5 parts per million, McQuillan said Tuesday, it is

considered hazardous according to the toxicity characteristic leaching process.

"The assumption is, if you can leach out that much chromium in soil by this procedure, then this is the amount available to the groundwater," McQuillan said.

Workers found the chromium-tainted soil under asphalt covering a 104-foot section of pipe that scientists believe may be the source of the reactor leak. Until Feb. 17, when workers drained the cooling water from the reactor and stopped the leak, the reactor was releasing about 75 gallons per day of tritiated water into the environment.

Tritium is a radioactive form of hydrogen that's used in nuclear weapons and is a byproduct of nuclear experimentation. It's also commonly found in glow-in-the-dark items.

Since filling the pipe with clean water, tritium levels in surface water around the reactor have dropped from nearly three times federal and state standards to about one-tenth those standards, Charles said.

The laboratory expects to

begin excavating around the pipe on Friday pending acquisition of the proper permits, Charles said.

The excavation shouldn't take more than a week, Charles said. Then the laboratory must determine the extent of the damage and the price to repair it, which Charles said could cost between \$500,000 and \$1.5 million.

If the U.S. Department of Energy, which oversees the nuclear weapons laboratory, decides the 37-year-old reactor is not worth repairing, that would put an end to the laboratory's hopes of becoming the sole U.S. manufacturer of medical radioactive isotopes, which are used in nuclear medicine for imaging and treatment.

Replacing the reactor would cost about \$25 million, a lab spokesman said last week.

Albuquerque Journal

K OCT 27 1983

New Mexico Press Clipping Bureau
Albuquerque, NM

LANL Radioactivity

Found in County Dump

By John Fleck

800

JOURNAL STAFF WRITER

Accidental disposal of low-level radioactive waste from Los Alamos National Laboratory in the county landfill is a common problem, a team of laboratory investigators has concluded.

The investigative board found that two incidents in May and June in which laboratory radioactive waste was sent to the dump were not isolated incidents, but a symptom of a larger problem.

"I think the board was somewhat surprised at the number of occurrences that it discovered in the course of the investigation," said laboratory official Rick Brake, who headed up the investigation team.

Brake and other laboratory officials said the levels of radiation uncovered by the investigation did not pose a threat to public health and safety.

Brake's review team nevertheless termed the rate of incidents "unacceptable," and the laboratory has begun a series of procedural changes to better control its radioactive waste.

The laboratory provided a copy of the review team's report to the Journal.

Laboratory regulations require low-level radioactive waste to be sent to a licensed dump site on laboratory property, where it is buried.

Laboratory officials said they believe no dangerously high levels of radiation could get into the county landfill undetected because of

radiation sensors at the landfill's entrance.

But the investigation report acknowledged laboratory officials have no idea how much radioactive materials it takes to set off the detectors.

The devices did not detect any of the incidents uncovered by the investigation team, but laboratory health and safety director Lee McAtee said he believes the sensors would detect anything radioactive enough to pose a health threat to landfill workers or the public.

The investigation began after a paper towel used to clean up a countertop contaminated with traces of radioactive waste was discovered at the county landfill on May 28.

Two weeks later, gloves contaminated with traces of radioactive uranium were discovered at the landfill.

The subsequent investigation by Brake and his team found three other incidents of radioactive trash going to the landfill during a six-week period.

McAtee said the radiation involved did not pose any risks, but said it was nevertheless unacceptable because of public perceptions.

"The public, for right or wrong, is intolerant of the laboratory releasing any radioactive materials into the public domain," McAtee said.

As a result of Brake's investigation, the laboratory is implementing strict new rules governing segregation of radioactive and non-radioactive trash to try to prevent problems.

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New Mexico Press Clipping Bureau
Albuquerque, N.M.

Lab waste disposal under fire

BY JOHN FLECK
JOURNAL STAFF WRITER

800

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New Mexico Press Clipping Bureau
Albuquerque, NM

Radioactive Tritium Found in Water Beneath Los Alamos

By John Fleck 800

JOURNAL STAFF WRITER

Discovery of low levels of radioactive tritium in groundwater beneath Los Alamos has raised a concern among officials that surface contamination could be reaching the groundwater, Los Alamos National Laboratory officials said Tuesday.

The tritium itself, discovered in a Los Alamos County drinking water well, is a tiny fraction — one-tenth of 1 percent — of the federal safe drinking water level, according to Los Alamos National Laboratory scientists.

But while the tritium does not raise a public health concern, its appearance raises the possibility that other types of contamination could be making their way into the deeply buried groundwater used to supply Los Alamos, said laboratory spokesman John Gustafson.

Los Alamos announced the tritium discovery Tuesday in a carefully worded news release. "The tritium levels do not represent any health risk," the laboratory said in the statement.

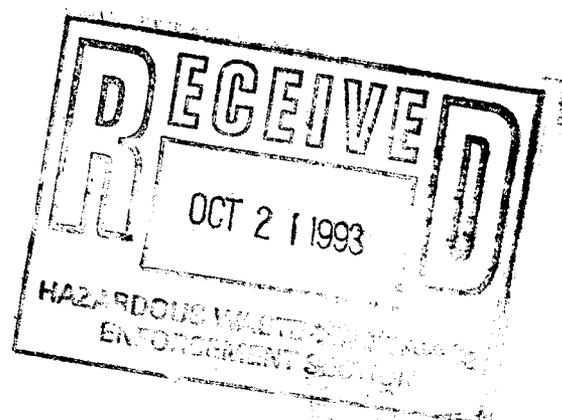
The statement goes on to say that the tritium test results "do raise a concern about possible migration of contamination from the surface to the deep aquifer."

Located under 1,000 feet of rock, the groundwater beneath Los Alamos was always believed to be safe from contamination from laboratory operations.

Studies done by the laboratory in the past have indicated the groundwater, seeping into the earth from the Jemez Mountains, is between 1,000 and 30,000 years old, Gustafson said.

Because tritium quickly decays within a few years into harmless hydrogen, it would be absent from any water that old, Gustafson said. Its presence therefore suggests that newer water may be somehow leaking from the surface into the aquifer.

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Albuquerque, NM

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New Mexico Press Clipping Bureau
Albuquerque, NM

Tritium raises groundwater concern

BY JOHN FLECK

JOURNAL STAFF WRITER 806

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within a few years into harmless hydrogen, it would be absent from any water that old, Gustafson said. Its presence therefore suggests that newer water may be somehow leaking from the surface into the aquifer.

Another possibility, which has not been ruled out, is a faulty test, Gustafson said. A 1992 test of the offending well showed up clean for tritium. The trace was discovered in a test done this year.

State officials took samples from the well at the same time, but have not received their results yet, said Kathleen Sisneros, director of the state Environment Department's Water and Waste Management Division.

Sisneros said the state is still evaluating the Los Alamos test results before determining what, if any, action to take.

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New Mexico Press Clipping Bureau
Albuquerque, NM

State Launches Study On Thyroid Cancer Rate

Record 6 Cases Diagnosed in Los Alamos in '92

By Tamar Stieber

JOURNAL NORTHERN BUREAU

SANTA FE — While no doubts linger that Los Alamos County has had four times as many thyroid cancers as elsewhere in New Mexico since 1987, a mystery still remains — what's causing the increase?

And why was 1992 the highest year ever, with six cases of the rare but generally curable disease?

The state Department of Health is hoping that a planned "case control study" funded by the U.S. Department of Energy will yield some answers.

"The incidence rate is provocative," said health department epidemiologist William Athas, who is heading the new study.

The study, which officially begins Thursday with the first public meeting of a technical steering committee in Los Alamos, will try to find common denominators among thyroid cancer cases, including 46 diagnosed in Los Alamos between 1970 and 1992.

Only one death occurred among the Los Alamos cases and that was in 1990.

The new study also could include data from communities near Los Alamos, including the Indian pueblos where there is great concern about high cancer rates and a suspicion they may be related to radioactive or other toxic emissions from Los Alamos National Laboratory.

The 50-year-old nuclear weapons laboratory designed, built and detonated the world's first atomic bomb. It is part of the DOE's nuclear-weapons complex.

Athas said it will cost the DOE "several hundred thousand dollars" and will take two to three years to complete.

Athas, who describes himself as a "hired gun," came to New Mexico from Arizona two years ago to oversee an ongoing study of all

cancers in Los Alamos.

That study, prompted by concerns of a brain cancer cluster in Los Alamos, surprised all involved when it turned up a high rate of thyroid cancer.

The question about brain cancers remains unresolved.

"We were concerned about thyroid cancer and that something be done," Athas said to the three people who showed up Monday night for a public information session in Santa Fe.

"We couldn't simply walk away from it," he said. "The community had to feel comfortable that we were investigating the cause of the four-fold elevation."

Among the causes the study may explore are environmental exposures, particularly to ionizing radiation, which is one of the few known causes of thyroid cancer; better diagnostic techniques that may be resulting in more diagnoses; and increased public awareness of thyroid cancer, which could also result in an increase in diagnoses.

Athas said the more you look for thyroid cancer, the more you'll find. Only 10 percent to 15 percent of all thyroid cancers are actually diagnosed, he said.

The bigger problem lies with looking at environmental exposures because very little data exist, Athas said.

However, the federal Centers for Disease Control and Prevention is conducting a "dose reconstruction study" to determine what, if any, toxic releases came out of the Los Alamos laboratory.

Findings from that or other environmental studies could be incorporated into the case control study, Athas said.

Scientists know very little about thyroid cancer except that it takes between 15 and 40 years to show up after exposure to ionizing radiation. Athas said thyroid cancer makes up only 1 percent of all cancers diagnosed in this country.

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New Mexico Press Clipping Bureau
Albuquerque, NM

State Begins 2½-Year Study Of Los Alamos Thyroid Cancer Cluster

By Tamar Stieber

JOURNAL NORTHERN BUREAU

LOS ALAMOS — By mid-1994, Los Alamos residents should begin receiving detailed questionnaires that state officials hope will explain why the county's thyroid cancer rate is four times higher than the state or the nation.

The questionnaires will mark the beginning of a "case-control" study designed to compare individuals diagnosed with thyroid cancer since 1987 to residents with similar demographics who didn't get thyroid cancer.

A panel of experts on Thursday chose 1987 as the starting point because that's when the county's thyroid cancer rate showed a sharp increase from previous years, William Athas, an environmentalist with the New Mexico Department of Health, told a Los Alamos audience Thursday night.

The study will try to answer whether radioactive or other toxic emissions from Los Alamos National Laboratory or something else

could be the cause of the cancer cluster.

Of the county's 46 cases of thyroid cancer since 1970, 26 of them occurred since 1987, according to statistics from the New Mexico Tumor Registry.

And 1992 was the highest year ever, with six cases of the rare but generally curable cancer diagnosed in Los Alamos.

A major task of the experts will be to reconstruct the residential makeup of Los Alamos since 1987 to find suitable individuals to use as comparisons, Athas said.

Athas said he expects to have some answers to the thyroid cancer mystery in 2½ years.

Another topic at Thursday's meeting was Los Alamos National Laboratory's nuclear waste disposal and storage area, called "Area G," which holds only low-level and suspected radioactive waste. It is expected to be filled to capacity within two years.

The laboratory's proposal to expand Area G by 71 acres has met

with strong opposition from neighboring Indian pueblos because the expansion would require razing several ancient Anasazi Indian ruins.

But a lab employee group presented a study showing that Area G, now 63 acres, need only expand by another 15 to 25 acres.

That would not only save the ruins, but could accommodate waste for another 50 years, said the study by Our Common Ground.

John Bartlit, one of seven members of the volunteer group, said the lesser expansion is possible only if the lab minimizes the radioactive waste it generates and makes certain that suspected radioactive waste is in fact radioactive.

The lab also would have to compact waste more tightly — closer to commercial standards, Bartlit said.

He acknowledged that Our Common Ground's suggestions would require cutting through many levels of bureaucracy at the lab and its overseeing agency, the U.S. Department of Energy.