CCNS
concerned citizens for nuclear safety

Nuclear Reactor

Santa Fe, NM
Spring 2000

Summary of the Record of Decision on Los Alamos National Laboratory's Site-Wide Environmental Impact Statement

On September 13, 1999, the Department of Energy (**DOE**) embraced the "Expanded Operations Alternative" for the level of future activity of Los Alamos National Laboratory (**LANL**), which provides for the maintenance and expansion of the lab's capabilities, and generally increases operations at the lab to the "highest foreseeable levels."

"Expanded Operations" is one out of four alternatives outlined in the January 1999 Final Site-Wide Environmental Impact Statement (**SWEIS**) for the continued operation of the laboratory. The other three are: the "No-Action Alternative," which, if adopted, would merely have provided for the maintenance of the lab's existing capabilities; the "Reduced Operations Alternative," which would have limited the lab's activities to the minimum levels necessary to comply with the DOE mission; and the "Greener Alternative," which would have reduced lab operations in support of defense and nuclear weapons mission elements, but would have increased lab activities in support of nonproliferation, basic science, materials recovery and stabilization programs.

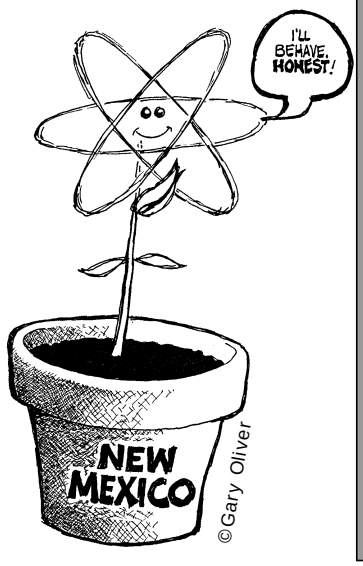
DOE's September 13 Record of Decision (ROD) adopts a slightly modified version of the "Expanded Operations Alternative." Under the preferred alternative, plutonium pit production has been relocated from the notorious Rocky Flats Plant to LANL's plutonium complex. Plutonium pit storage will be expanded. High explosives testing, much involving special nuclear materials, will triple. Tritium operations will be expanded, the development of accelerator produced tritium will be pursued, and the lab's "low-level" radioactive dump will be doubled.

LANL's professed post-Cold War mission is to help ensure the "safety and reliability" of the nuclear weapons stockpile.

continued on page 2

So What's New About Plutonium

New evidence that plutonium is more soluble than scientists previously thought was reported in the January 14, 2000 edition of "Science Magazine." In a four-year experiment at Los Alamos National Laboratory (**LANL**), scientists found that plutonium is more soluble in the presence of water vapor or water. One of the reviewers of the article, Charles Madic, said, "The new results will also have great consequences for the underground disposal of nuclear wastes." These consequences will effect both the civilian and military use of plutonium, including the decision-making processes for cleanup, the expansion of LANL's "low-level" dump, the weapons waste dump at the Waste Isolation Pilot Plant (**WIPP**), the proposed civilian dump at Yucca Mountain, and other sites worldwide. In light of the new scientific findings, exposure, dose and risk assessments will have to be recalculated.



INSIDE THIS ISSUE

LANL's Site-Wide Environmental Impact Statement

CONTINUED FROM COVER

As a baseline, the stockpile is currently judged to be safe and reliable. DOE's own documents state that no problems are expected for decades with stockpile aging that couldn't be detected and fixed by existing evaluation programs and remanufacturing-as-needed of both nuclear and non-nuclear parts.

Nevertheless, DOE has proposed and is implementing the Stockpile Stewardship and Management (SSM) Program at budget levels approaching $4.6 billion annually, exceeding Cold War levels for core nuclear weapons research, development and testing programs. In the SSM Programmatic Environmental Impact Statement, DOE repeatedly stated that as a matter of national policy new nuclear weapons would not be produced. However, DOE's real SSM Plan (the so-called "Green Book," released in a declassified version due to citizen litigation), contains a number of admissions pertaining to the indefinite maintenance of the stockpile, gradual replacement of existing weapons with modified or new ones, the possible development of new nuclear weapons in response to emergent threats, and the reconstitution of the nuclear arsenal to Cold War levels, if deemed necessary.

The indefinite extension of U.S. nuclear weapons, coupled with plans for the design and production of new replacement or completely new nuclear weapons, has extremely significant international implications. The principal international instrument for suppressing the proliferation of nuclear weapons has been the Non-Proliferation Treaty, in which the nations with nuclear weapons promised in 1970 to enter into serious negotiations towards total nuclear disarmament. As their part of the bargain, those nations without nuclear weapons forever forswore the acquisition of nuclear weapons. The LANL SWEIS largely represents an indefinite extension of U.S. nuclear weapons programs, which will obstruct a global resolution of the root causes of proliferation.

In its leaked 1993 LANL Strategic Plan, LANL management made clear its desire to obtain whatever residual share of production capabilities of the consolidating nuclear weapons complex. LANL's ultimate goal is to achieve the ability to produce complete nuclear weapons. The LANL SWEIS is now implementing expanded nuclear weapons operations at the lab, which will help assure LANL of its position as the premier nuclear weapons laboratory. However, production will take place at a lower level than originally specified in the draft SWEIS. In the draft SWEIS, "Expanded Operations" included provisions to expand the manufacture of plutonium pits from the current rate of around 14 annually to a capacity of 50 to 80 pits per year. But in its Record of Decision, DOE states that it will postpone any decision to expand pit manufacturing beyond a level of 20 pits per year in the near future (through 2007). However, this postponement does not modify the long-term goal of producing up to 80 pits per year in multiple shifts. In order to create more floor space for pit production, the SWEIS considers the construction of a "brownfield plutonium facility," an advanced plutonium laboratory reminiscent of a project that was stopped in the early 90's, the completion of which would have capped the creation of a "special nuclear materials park." LANL is slated to remain involved in a variety of plutonium operations for a long time to come as evidenced by a demonstration project to remanufacture pits into commercial reactor fuel rods, and the stabilization of dangerous LANL and Rocky Flats plutonium residues.

The other major expanded activity under the alternative adopted in the Record of Decision is the expansion of the Area G "low-level" waste (LLW) dump. LANL proposes to dispose of over 4 million cubic feet of waste at Area G, about 2/3 of the capacity of WIPP. It is not just a low-level waste dump — in the past reactor rods and "classified" wastes have been buried there. In a process separate from the SWEIS, DOE is also considering whether LANL should become a consolidated disposal center for LLW from other DOE sites, which could open the floodgates for transportation and disposal of huge volumes of LLW.

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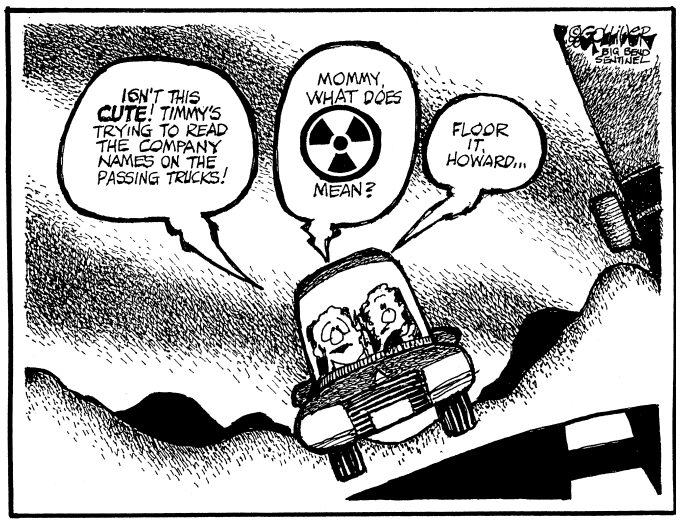
ILLEGAL TRANSPORT OF PLUTONIUM BY HELICOPTER

A controversial shipment of weapons-grade plutonium fuel from Los Alamos National Laboratory (LANL) in New Mexico to the Chalk River Research Reactor in eastern Ontario, Canada, was trucked through six U.S. states before entering Canada on January 14. The shipment was then flown by helicopter from the Canadian border at Sault Sainte Marie to its final destination at Chalk River.



In an effort to reduce the threat of nuclear terrorism, the U.S. Department of Energy (DOE), Russia and Canada are experimenting with burning U.S. and Russian nuclear fuels together in Canadian commercial reactors. The fuel, a blend of plutonium and uranium oxides, is called "MOX." The LANL shipment, which contained 119 grams of plutonium, will be burned with Russian fuel in an initial "test-burn" to obtain technical information on the suitability of the fuel for Canadian reactors. A similar shipment from Russia will be transported by sea and is expected to arrive in Canada through the St. Lawrence Seaway this spring. This experimental program to use weapons fuel for commercial nuclear reactors is called the "Parallex Project." If successful, the tests may lead to the transport of dozens of tons of plutonium fuel from Los Alamos and Russia to Canada over the next 25 years.

Vocal opponents of the shipment on both sides of the U.S./Canada border, including environmental organizations, citizens groups, elected officials and tribal leaders, were taken by surprise by the decision to transport the plutonium by air once it was in Canada. They argued that air transport may have constituted a violation of legal requirements for shipping hazardous substances. Canadian authorities may have opted for air transport to avoid the strong opposition. Many environmental activists and tribal leaders had vowed to block the shipment if it passed through their territory.

CCNS representatives, hoping to alert our colleagues along the routes and at the Canadian border, spent nights watching for the transport vehicle to leave LANL. Later it was discovered that DOE had changed the departure date, perhaps to avoid protesters along the route.

The U.S. DOE's Environmental Assessment for the project states that "[p]lutonium is a component of MOX fuel. The restrictions imposed for transportation of plutonium by air prohibits this alternative for shipment of the MOX fuel quantities needed for the Parallex Project. In addition, air transport is considered to be more hazardous than ground transport due to the potential for greater distribution of radioactive materials in the event of a major air accident. This alternative was dismissed from further analysis."

Furthermore, in a response to comments on "The Selection of the Sault Sainte Marie (Michigan) Route for Transport of the Parallex Project MOX Fuel Shipment to Canada," DOE determined that a U.S. Nuclear Regulatory Commission (NRC) certified shipping container did not currently exist to hold the MOX fuel rods. DOE concluded that it "would not support the air shipment of this material...."

On January 15, despite U.S. pronouncements, Larry Shewchuk, of Atomic Energy of Canada, Ltd., said that "[s]hipping by air is no more dangerous than by road and it's more direct. The Atomic Energy Board was agreeable to an amendment; the container is certified for shipment by land, sea and air."

In early February, Ontario's civil service union sued the province, on behalf of workers at the Sault Sainte Marie airport, for exposing workers to the shipment. Information about the shipment was shared on a need-to-know basis. However, the province failed to notify the Natural Resources Ministry workers. "What [the province] has done is absolutely negligent," said Robert DeMatteo, an Ontario Public Service Employees Union official. "They have violated these employees' rights and they could have exposed them to dangerous radiation."

DOE ADMITS TO CANCERS

Environmental activists and Department of Energy (DOE) workers have spoken out about the detrimental health effects from working in nuclear weapons plants for many years. Finally, after decades of denial, the DOE has admitted in a leaked report, that workers making nuclear weapons have been exposed to radiation and toxic chemicals that have produced cancers and early death.

The federal government acknowledged that the exposures led to higher-than-normal rates in a wide range of cancers among workers at 14 nuclear weapons plants around the country. The report stated that at these plants there were 22 categories of diseases that were found more frequently than expected. The cancers were found among nearly 600,000 people who worked in the nuclear weapons production plants. The health effects range from leukemia and Hodgkin's lymphoma to cancer of the prostate, kidney, salivary glands and lung. In July, the government admitted that dust from beryllium, a toxic metal used in weapons production, had caused some workers to contract berylliosis, an incurable lung ailment. This finding led President Clinton to order a broad study to look at the effects of radiation and chemical hazards from uranium, plutonium and other substances. Clinton also asked the study group to develop a policy for compensation, but that work is not yet complete. Congress will have to resolve the issue of compensation for those who are sick and for surviving family members of those who have died as a result of their exposures.

In a recent interview, Energy Secretary Bill Richardson said, "This is the first time that the government is acknowledging that people got cancer from radiation exposure in the plants." Since the government began processing radioactive material to produce bombs over 57 years ago for the Manhattan Project, the government has continued to minimize the hazards of radiation and chemicals. The government tried to marginalize, discredit and criticize epidemiological research that raised questions about these hazards. Instead of investigating the facts, the government spent tens of millions of dollars defending itself against lawsuits brought by sick workers. Today, the truth is seeping out.

One expert on nuclear weapons manufacturing who is also a former DOE official, Robert Alvarez said, "A review of the [exposure] studies by a body impaneled by the president is official recognition. That's what makes this a big deal." Alvarez commented that the number of victims would depend on the number of diseases admittedly linked to radiation. If these links are made, the number of affected workers could increase to the thousands. Some epidemiologists believe radiation damages the human immune system and thus leaves people vulnerable to a wide variety of diseases in addition to those cancers usually associated with radiation.

Daniel J. Guttman, the attorney for the Union of the Paper, Allied-Industrial Chemical and Energy Workers, who represents employees at 11 weapons factories, said of the draft conclusions, "That's stunning. The prior story line was, 'What's the big deal, the risks were marginal.'"

AS WITH THE NEW MILLENNIUM, THERE IS A NEW CCNS

CCNS HAS BEEN THROUGH A DIFFICULT YEAR.

A little bit of history: within the previous Board there were two factions that had different views. Eventually the Board divided into three new organizations. Today, Jay Coghlan is part of an organization called *Nuclear Watch of New Mexico*. Caron Balkany has formed two new organizations, *Eco-Ed* and the *Santa Fe Coalition for Environmental and Social Justice.* We wish them well.

Back at CCNS, we are very happy to announce that we have a wonderfully refreshing new Board. Our work is continuing in earnest. Our new Board is composed of three Pueblo members, Michael Vigil from Tesuque Pueblo, Carl Tsosie from Picuris Pueblo, and Harley Brewer from San Ildefonso Pueblo, and three long-time Santa Fe activists, Deborah Reade, who has been working on WIPP issues for 20 years, and two members who have worked at CCNS, Anna Hansen and Charlotte Cooke.

Our entire Board is very knowledgeable about all the issues CCNS is involved in and they are ready to pitch in to help the staff. Suzanne Westerly is our Acting Executive Director and Community Outreach Director, Joni Arends is our Waste Programs Director, and Marian Naranjo is our Community Consultant. We also have two part-time staff: Markus Glodek, a St. John's College student, and new-to-New Mexico, long-time activist, Coila Ash.

Remember to call the CCNS Hotline - locally at 982-5611, and nationally at 1-800-456-8863.

AS DEPLETED URANIUM EXPLODES

The following quote is by Dr. Rosalie Bertell of the International Institute of Concern for Public Health, Toronto, in response to NATO's May 3, 1999 admission that they used depleted uranium shells in Kosovo.

"**DEPLETED (DU) URANIUM IS ONE OF THE LARGEST CATEGORIES** of radioactive waste produced for the nuclear weapons and nuclear reactor industry. It is highly toxic to humans, both chemically as a heavy metal and radiologically as an alpha particle emitter which is very dangerous when taken internally. Recently it has been a substitute for lead in bullets and missiles by the U.S. and U.K., and was first used extensively by the West in the Gulf War. It is most likely a major contributor to the Gulf War Syndrome experienced both by the veterans and the people of Iraq.

When used in war, the DU bursts into flame from the impact when it hits a target. It can pierce tanks and armored cars, releasing inside of them a deadly radioactive aerosol of uranium, unlike anything seen before. Concentrated like this, it can kill everyone in a tank. This ceramic aerosol is much lighter than uranium dust. It can disperse in air tens of kilometers from the point of release, or be stirred up in dust and resuspended in air with wind or human movement. It is very small and can be breathed in by anyone: a baby, pregnant woman, the elderly, and the sick. This radioactive ceramic can stay deep in the lungs for years, irradiating the tissue with powerful alpha particles within about a 30-micron sphere, causing emphysema and/or fibrosis. The ceramic can also be swallowed and do damage to the gastro-intestinal tract. In time, it penetrates the lung tissue and enters into the blood stream. It can be stored in liver, kidney, bone or other tissues, again for years, irradiating all of the delicate tissues located near its storage place. It can [a]ffect the blood, which is the basis of our immune system, and do damage to the renal system as it is eventually excreted in the urine. It can also initiate cancer or promote cancers which have been initiated by other carcinogens."

Tons of DU have been exploded outdoors at LANL over the years. According to LANL's Record of Decision (see cover story), 7,000 pounds of DU a year will continue to be detonated in open-air explosions.

For more information, please visit this website: <http://www.antenna.nl/wise/uranium/diss.html>.

COMMUNITY RADIATION EDUCATION PROGRAM

In April 1996, as a result of a 1994 lawsuit filed by CCNS against the Department of Energy (DOE), the federal district court found that Los Alamos National Laboratory (LANL) had been in violation of the radioactive emission standards of the Clean Air Act (CAA). Under the terms of the Consent Decree which settled CCNS' lawsuit, the Radiation Assessment Corporation (RAC) is conducting up to four independent audits of the lab's radioactive air emissions monitoring program. The Institute for Energy and Environmental Research (IEER) has been closely monitoring the process as consultants to CCNS. The first audit found deficiencies in LANL's inventories of radioactive materials. The second audit will begin with a planning meeting in early April with CCNS, RAC, IEER, LANL and the New Mexico Environment Department (NMED). There will be one public evening meeting in Santa Fe on April 11. Public input is very important at this time when LANL is planning on expanding its operations (see cover story). We will be putting ads in newspapers, as well as announcements on our Hotline, as soon as the meeting time and place are verified.

Among the provisions settling the lawsuit was the mandatory funding by DOE of the University of New Mexico's School of Medicine, Masters in Public Health Program (UNM MPHP) for an environmental health curriculum. CCNS and UNM MPHP have formed a working relationship to create the Community Radiation Education Program (CREP) with the Eight Northern Indian Pueblo Council, Inc. Environment Department (ENIPC ED). We have been making presentations in the Pueblos where we share basic environmental and radiation information. Our future plans are to focus on classroom presentations in Santa Fe and Española. CCNS and UNM have been working on a professional video production on radiation, health, the lab and citizen concerns over these issues. Along with the video, we are developing study guides for use in the schools and at community meetings. The video and study guides will be available in late summer.

In our community meetings, CCNS presents an overview of the Clean Air Act and our victorious lawsuit against DOE for LANL's six years of noncompliance with the Clear Air Act as well as some of the ongoing work at LANL and their plans for expansion of nuclear weapons related activities. We also give an introduction about the Community Radiation Education Program (CREP). We show short videos and play educational games created and implemented by CCNS and ENIPC ED. We find sharing educational material opens an avenue for citizens to voice concerns and empowers people to ask questions.

Please give us a call if you would like more information about our Community Radiation Education Program. Ask for:
Suzanne Westerly, CREP Program Director, or
Marian Naranjo, Community Consultant.

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visit our web site at:
nuclearactive.org

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UPCOMING EVENTS

MARCH 18, 2000 Public Meeting on the DOE's Occupational Illness Compensation Issue, sponsored by Rep. Tom Udall and Sen. Jeff Bingaman with Asst. Sec. of Energy Dr. David Michaels, at Northern New Mexico Community College in the Joseph Montoya Bldg.
11:30 am to 2:30 pm
Call CCNS at 505-986-1973 for more information.

MARCH 18, 2000 Peace Action New Mexico's Annual Community Dinner, keynote speaker Jim Hightower, radio talk show host and author of *If the Gods Had Wanted Us to Vote, They Would Have Given Us Candidates.*
Call 505-989-4812 for information.

APRIL 11, 2000 CCNS's Clean Air Act Audit Public Meeting with Dr. John Till of RAC and Dr. Arjun Makhijani of IEER, CCNS's retained oversight consultant.
Call CCNS at 505-986-1973 for more information.

APRIL 2000 Hazardous Materials Awareness Training - Pecos, New Mexico.
Call CCNS at 505-986-1973 for more information.

APRIL 29, 2000 All Species of the Earth Day, Santa Fe.
Call Chris Wells at 505-820-0493 or allspecies.org

JUNE 2000 The second audit of LANL's radionuclide emissions will formally begin.

Do you have ...

Time to volunteer, to do data entry? Mac computer expertise (as a donation or at a reduced rate)? A light-touch powerbook laptop computer you would like to donate or sell at a good price (must operate with battery also)? a Mac-compatible color printer? Would you be interested in buying some stock in companies CCNS wishes to monitor? Prizes for participants in our educational games for all ages?

*Name*_____
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_____
*Phone/Fax*_____
*e-mail*_____

YES, $TOP THE WEAPONS AND WASTE. It's the $5 to $500 plan.
*Here's my tax deductible donation of $*_____
I would like to support CCNS as a member.
_____ *Student - $15* ___*Business - $35*
_____ *Individual - $25* ___ *Sponsor - $100*
_____ *Patron - $500-$5,000*

I want to help and/or volunteer! With an in-kind donation of my time or skills. My skills/interest are:

_____

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