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Local Sierra Club changes stance on OSRP project

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The Pajarito Group of the Sierra Club broke from the pack earlier this month to publicly support Los Alamos National Laboratory's efforts to recover "sealed sources" – encapsulated radioactive materials, mostly from private industry, that have posed a growing disposal problem throughout the country.

While other environmental groups, including the Sierra Club itself, remain opposed to the program, the Pajarito Group reached out and gave the program's leaders a chance to explain it in full.

"I had grave concerns on it," said Chuck Pergler, conservation chairman of the group, on Friday. But after a lengthy meeting on Aug. 31 with Lee and Shelby Leonard, the husband and wife team who have captained LANL's Off-Site Source Recovery Project (OSRP), Pergler

wrote to DOE expressing the group's qualified support.

On behalf of the 400-plus members of his group, Pergler wrote: "The Pajarito Group ... believes the proposed project modification is important to preventing public health and safety issues and avoiding potential activities of a terrorist nature."

Pergler concluded that the plan for off-site recovery of nuclear material was "an honest program, sensitive to human health and the environment." He also encouraged OSRP to conduct additional briefings and educational programs to counter what he called "the lack of information, misinformation, and incomplete press coverage pertaining to the proposed modification."

By the mid-1950s, radioactive materials began to be made ever more widely available for a variety of "useful" purposes. They were



Courtesy Photo

A widow in Ohio waited five years before checking the contents of her husband's vehicle, only to find sealed instruments containing radioactive materials.

enclosed in stainless steel containers to prevent harmful effects, but they were not shielded against oblivion.

Who could have foreseen that 10, 20, 40 years down the road, tens of thousands of potentially hazardous

objects, now known as sealed sources, would be left scattered, abandoned, and relentlessly accumulating?

The most common uses of sealed sources have been in the medical,

natural resources, and construction industries.

Prolonging the lives of heart patients, plutonium-powered batteries still energize pacemakers,

(Please see PROJECT, Page A-8)

although more recent devices have long since switched to lithium sources.

Instruments containing americium and plutonium, called well-loggers, give gas and oil explorers data on the hidden volumes of hydrocarbons for which they probe deep below the earth's surface. On road construction crews, an americium-beryllium compound is used for measuring moisture in gravel; a cesium gauge calculates the density of asphalt.

There are also many miscellaneous sources still at bay. The largest thermal generator ever made remains at Oak Ridge, Tenn., powered by a million curies of strontium-90.

Occasionally, a radioactive source gets into a metal shredder and disastrously contaminates entire scrap-heaps of recycled metal. These disasters can cost a fortune to clean up. A vast database has been assembled to itemize each source, the company that manufactured it, the purchaser, the individual who used it, and where it is located now. After one shredded-metal accident, the radioactive source was traced back to the person who was last responsible for it.

For years, a widow in Ohio ignored her deceased husband's camper trailer with its trefoil radioactive warning on the back. Five years after he died she finally cracked it open and found a legacy of nuclear well-logging gauges that could not be safely tossed in the trash.

Closer to home, Los Alamos County recently discovered a surplus soil-testing construction gauge. Upon inspection by OSRP, it was found to contain radioactive material. It is being held in a county building awaiting disposal when and if OSRP is greenlighted.

In a briefing for the Monitor, OSRP project leader Lee Leonard said LANL began accepting low grade plutonium items in 1979 for separation and storage in a vault. Under Public Law 99-240 (The Low-Level Radioactive Waste Policy Amendments Act of 1985), the Department of Energy was given ultimate responsibility to zero-out an estimated inventory of 20,000 obsolete sealed sources in



Courtesy

A variety of sealed sources (equipment containing radioactive materials) is scattered around the country. A revised program at Los Alamos National Laboratory will encourage recovery more of these objects.

the U.S.

By the early 1990s, these materials amounted to a glut in country, and by 1995, DOE began trying more urgently to get them "off the street."

At first, they were accepted by LANL under a Site-Wide Environmental Impact Statement (SWEIS) approved in 1995. This pilot program involved gathering the materials, extracting the radioactive elements from their containers, and separating them out with a chemical process. The recyclable materials were then held in a vault at Technical Area 55.

But the program had drawbacks. It was costly: approximately \$20,000 per item, to transform sources that may have only cost \$500 to \$1,000 to buy. The treatment also resulted in exposure to workers, and made it impossible to separate out defense-related materials that could be sent to the Waste Isolation Pilot Plant (WIPP) in Carlsbad for storage.

Then, in January, DOE decided to ask LANL to forego the chemical processing. A revised recovery program was designed to accept the products containing sealed sources, extract the sources, identify their

origins and uses, and put the unsealed sources in drums for storage at Area G, until a final disposal plan could be initiated.

The advantage of this method was that the waste product from the previously applied chemical treatment had amounted to 75 percent of the original material anyway, and that waste had to be stored on site as well. Placing all the known sources in metal drums would only add 900 drums to the repository in Area G, which already held 45,000 drums awaiting disposal.

With the additional separation, about 10 percent of the waste, derived from defense-related activities, would qualify to be transported to the Waste Isolation Pilot Plant (WIPP) near Carlsbad. And the cost per item would only 10 percent of the chemical treatment, about \$2,000 per item.

To make the change, "LANL had to do its homework," said Leonard. LANL's original plan under the 1995 SWEIS had to be formally modified. The question was: Could the more practical process be accomplished by an additional "supplemental analysis," or did it have to go through another complex and time-consuming review under the

National Environmental Protection Act? Meanwhile, during 1999 and to date, LANL has stopped receiving additional source material.

Pending final approval, OSRP has worked on developing "safe, long-term storage options," and "planning for both the recycle and final disposal of radioactive materials recovered by the project."

Much of the criticism of the program has focused on the incomplete "disposal path" for waste material from Area G, adding another load on top of New Mexico's already heavy nuclear burden.

While officials theorize that the non-defense waste from sealed sources may ultimately be taken to

Yucca Mountain in Nevada, that site has not been approved yet, and has monumental hurdles to overcome before construction is scheduled to begin in 2005. High level wastes would not be accepted for another five years under the currently proposed timeline.

Greg Mello of the Los Alamos Study Group in Santa Fe and Don Hancock of the Southwest Research and Information Center in Albuquerque have been among those reported to be opposed to the revised plan. The OSRP has been endorsed by the Northern New Mexico Citizens Advisory Board, as well as the Pajarito Group of the Sierra Club.

A determination has been drafted, according to Leonard, and is in the hands of DOE for final approval.

David Gurule of the DOE-Los Alamos Area Office said on Friday that the approval document was "still being staffed," and that it was still "a work in progress." He said his office was "addressing all the conflicting points of view," including input from environmental organizations and the pueblos.

Pergler said the Pajarito Group had concluded that in this case the merits of the program outweighed DOE's presentation of them.

"DOE doesn't do a good job reaching out," he said, criticizing the department's practice of conducting "massive public meetings" for public review, rather than more "one-on-one," meetings and briefings with small groups.

The Pajarito Group's change of mind would not have been possible, Pergler said, if they had not taken the time to delve into the benefits and clarify the misunderstandings that surrounded this issue.

Gas-spill warning: Nuke-wreck next?

Bad enough that a fuel-truck driver lost his tanker-trailer while driving down the road, spilling 2,300 gallons of gasoline not far from where the Española highway meets the road to Los Alamos.

State police did an excellent job of warning traffic away from the spill area, and state crews made the best of a bad situation by spreading and sweeping up absorbents. Casualties were limited to motorists' tempers.

But Northern New Mexicans couldn't help but wonder: What if the trailer in question were toting nuclear waste?

Not the low-level radioactive material being hauled in high-tech TruPact by specially selected drivers from Los Alamos National Laboratory to the Waste Isolation Pilot Project near Carlsbad; but what if it were the higher-level waste heading to Los Alamos from college laboratories and private businesses nationwide?

A thousand more drums is to be stored *not* a half-mile below the desert in the salt caverns of WIPP, but *above* ground up on the Hill — until the Department of Energy decides what to do with it. Five, six years; maybe more. Eventually, the waste might wind up at Yucca Mountain, Nevada, along with high-level nuclear-weapons waste.

But for now, the material is headed for LANL, and Area G, where those thousand drums would be but a small part of the nuclear waste, some destined for WIPP, sitting in steel drums with only a tent to ward off the weather.

In May, the Cerro Grande forest fire came within half a mile of Area G. Presumably, LANL, having learned a hard lesson, will work with the U.S. Forest Service to make certain that what's left of the woods surrounding the lab won't be threatened in the future.

However, the whole notion of nuclear-waste storage at LANL is dangerously ridiculous. The roads up Pajarito Mesa, across which the lab is scattered, are steep and winding; commuting workers and other drivers crash with regularity, even in good weather. The last thing that should be on those roads is a truck less safe than the TruPact rigs, with Joe Sixpack at the wheel — and who knows what kind of nuclear garbage in the back.

So why not send this waste straight to WIPP? Because federal law doesn't allow non-defense nuclear waste to be mixed in with civilian-lab waste at WIPP.

If Congress can't overcome a Catch-22 under which stuff less safe than the WIPP-bound material continues piling up at LANL — and it's been accumulating in small amounts for the past two decades — then it's time for another waste-isolation site. Yucca Mountain, the designated high-level receptacle, would be most sensible — or somewhere in that area of the Nevada desert, doomed to a radioactive future until or unless science can neutralize what it has unleashed on the world.