July 1989

Radioactive and Hazardous Wastes to be Burned in Los Alamos Incinerators

Los Alamos National Laboratories is applying for a final permit to burn mixed hazardous and radioactive wastes. **The State of New Mexico does not have any regulations for radioactive emissions!** Since there are no restrictions on radioactive emissions, the State Environmental Improvement Division will be holding a public hearing to consider only the "hazardous waste portion" of this incinerator permit. The hearing will be held on **Tuesday, July 18**, at **9:00am** in the Runnels Building Auditorium located at the corner of St. Francis Drive and Alta Vista.

1143 Agenda St.

THE CURRENT SITUATION AT LOS ALAMOS

There are five incinerators planned for LANL: two are in place now, and three more are proposed.

• The July 18 hearing is in regard to a radioactive-hazardous waste incinerator which was originally built for research purposes in the '70s. This incinerator has been closed for the last two years for remodeling to bring it up to full scale production capabilities. Prior to this temporary shutdown, this incinerator was used to burn radioactive-contaminated PCBs. This incinerator has been operating under interim RCRA (Resource Conservation and Recovery Act) status, **a temporary permit which currently allows LANL to burn radioactive and hazarous waste without any environmental assessment ever being done and without any opportunity for public comment**. This incinerator has operated under the auspices of this "temporary" status for nine years. Although there is a state moratorium on hazardous waste incineration, the LANL incinerator has been exempted. Transuranic waste, the same plutonium-contaminated waste that is designated for WIPP, will comprise the bulk of the waste stream destined for incineration here. THERE IS NO CURRENT ENVIRONMENTAL ASSESSMENT ON THIS INCINERATOR AVAILABLE TO THE PUBLIC.

• A second radioactive-hazardous waste incinerator is planned for LANL, this to be designated for incineration of low-level wastes. Even though this incinerator has yet to be constructed, the regional office of the EPA in Dallas has already given LANL an approval letter for incineration of radioactive materials. There was no public hearing or consideration of public comments for the construction and operation of the radioactive portion of the permit. The state moratorium does affect this incinerator, and it is currently on hold.

• A munitions incinerator is currently in operation at LANL, which is used to burn old ammunition and explosives.

• Two municipal waste incinerators have been proposed and permitted for operation at LANL as well. Due to the fact that there are no regulations governing waste incineration, construction bids were extremely high and this project has been abandoned for the time being.

INCINERATION OF RADIOACTIVE WASTE IS NOT SAFE

The operation of a radioactive-hazardous waste incinerator in Los Alamos poses a critical health threat to all of us. New Mexico has no regulations to control radioactive emissions from incinerators. Amazingly, the federal Environmental Protection Agency (EPA) has no restrictions on airborne releases of radioactivity from incinerators either. **There are no safety regulations in place on either the state or federal level to protect the public from airborne radioactive materials that are produced from incineration.**

Since there are no regulations governing incineration of radioactive materials, the July 18 hearing will ONLY address the hazardous waste portion of the permit request. **This hearing is entirely inadequate in that it does not address the primary health concern associated with the incineration of these wastes**, namely the release of plutonium and other radioactive materials into the atmosphere in easily respirable particles, as well as certain releases of dioxins, heavy metals, and various other hazardous chemicals.

No one in New Mexico State Government has conducted an assessment to determine the impact of the incineration of radioactive and chemical materials on human health. In addition, there has been no review of the control technology for the monitoring devices, which measure the emissions of toxic and radioactive particles into the air. The Los Alamos incinerator is the first of this design to go into operation; we have no way of knowing whether it is safe.

Massive atmospheric releases of plutonium and other deadly radioactive elements in recent years at DOE's Rocky Flats Plant in Colorado have proven to be the rule, not the exception. It was revealed through recent FBI investigations at Rocky Flats that illegal midnight incinerations of radioactive waste were taking place. Private hazardous waste incinerators across the country have been plagued by problems and accidents. Citizens in nearby communities complain of high cancer rates and birth defects. Many of these incinerators have so severely contaminated the environment that they are now targeted for Superfund cleanup. The track record for incineration in this country instills very little confidence in this "solution" to the waste crisis.

Incineration is the newest waste volume reduction technology favored by the DOE. The waste that would be burned in the Los Alamos incinerator is the same plutonium-contaminated mixed waste that was originally designated for deposition at the WIPP site. As a result of incineration, now a concentrated highly-toxic radioactive ash would be sent to WIPP instead. The WIPP site has been under heavy scrutiny for 10 years and still hasn't opened due to the potential for disastrous contamination at the site. Yet the very same waste that has failed to meet safety criteria for disposal at WIPP has had to go through almost no regulatory process to be burned, despite the near certainty of airborne contamination.

Incineration of hazardous and radioactive wastes is presented as state-of-the-art in waste volume reduction, yet the incineration process in fact creates even more toxic wastes which must be disposed of in turn. The process creates radioactive ash, which must be "bound" in a medium such

as concrete or asphalt for disposal, adding to the volume once again. Stack gas "scrubbers," water utilized to capture a portion of the gaseous pollutants, is contaminated in the process and must be disposed of properly. The filters in the stack must be changed periodically and since they are now radioactive, they too must be buried. This is not an efficient process.

As Greenpeace states in their material, "No reliable method exists to measure or monitor the performance of hazardous waste incinerators. As one EPA report says, 'The complexity of the incineration process; the differences in incinerator designs, and the difficulties in monitoring changing operation conditions make the accurate prediction of absolute incineration performance an essentially impossible task.'" There is no independent monitoring for the Los Alamos incinerator. The state Environmental Improvement Division has 4 people to inspect 2000 sites, and major facilities get 1 visit per year.

Incinerators are permitted on the basis of a trial burn. This is like looking at a "snapshot" of the overall efficiency of the facility. An EPA report warns, "No information is obtained about how the incinerator's performance might fluctuate with future changes in operating conditions or waste feed characteristics." A clean burn depends on three factors: time, temperature and a constant waste stream. The waste stream at LANL will be variable, which will result in products of incomplete combustion. The Dallas regional EPA oversees this incinerator which means they will not have regular inspection visits either.

REGULATIONS GOVERNING INCINERATION OF RADIOACTIVE WASTE
otherwise known as lack of adequate safeguards

1. The Atomic Energy Act (amended in 1954) gives DOE the right to essentially permit themselves for radioactive substances. These regulations are inadequate as they don't contain specific emission standards for radionuclides in regard to incinerators.

2. NESHAP (National Emission Standards for Hazardous Air Pollutants) These federal regulations under the Clean Air Act are also fairly useless in regard to incineration. This is a "fence-line" regulation which limits the amount of radioactivity crossing the LANL border to 25 mrems. How do you stop radiation from crossing a fence?

Neither of these regulations adequately protects the health and safety of the public. Meanwhile, LANL can burn highly toxic substances without answering any questions to the affected communities.

HEALTH RISKS OF INCINERATION

Greenpeace states, "Hazardous waste incineration is riddled with unknowns, but one thing is certain--the health and the environment of communities in which incinerators are sited are at risk. Incinerators release unknown quantities of unknown chemicals, presenting health threats of unknown magnitude and unknown duration to the people and ecosystems of neighboring communities."

Incineration does not destroy radionuclides, but only reduces their size, thereby making them more likely to slip through the filters and get picked up by pollen and dust particles in the air. This in turn creates the potential for inhalation of these particles. Plutonium emits alpha radiation. Because of

the low penetrating ability of alpha particles, insoluble alpha emitters do not pose a health hazard outside the body. However, when inhaled, ingested or absorbed, alpha emitters are the most dangerous of all types of radiation. A minute particle of plutonium - just one-millionth of a gram - can cause cancer. Incineration will leave plutonium in particulate form, the most dangerous for human exposure. The health risk of environmental plutonium is underestimated by current occupational standards to an unacceptable degree. There is growing evidence that low-level, long-term radiation is extremely dangerous - even more so than a one time, severe exposure. Dr. Abram Petkau of the Canadian Atomic Energy Laboratory came to this conclusion: the longer the time of radiation of exposure, the smaller the total dose needed to do the damage. This discovery effectively tossed all previous assumptions about "permissible exposure levels" out the window, and is supported by world authorities on low-level radiation, including Dr. Jay Gould, Dr. Ernest Sternglass, Dr. Thomas Mancuso, and Dr. Alice Stewart, to name just a few.

Dioxins are a toxic chemical formed from the recombination of carbon and chlorine in the incineration process. Dioxins can enter the body through the air, ingestion and absorption through the skin. This is an extremely toxic chemical; a particle the size of a grain of sand can cause cancer.

Many other hazardous substances could be released from the incinerator as well, including hydrochloric acid, sulphuric acid, cadmium, chromium, mercury, arsenic, and lead. Heavy metals are not destroyed by incineration processes. The main carcinogens would be in gaseous or particulate form.

ALTERNATIVES TO WASTE INCINERATION

Supercompaction presents a viable alternative to incineration, is less costly, and - most importantly - does not result in any airborne releases of hazardous or radioactive materials. Estimates have placed the cost of constructing and operating a compactor at one-fourth that of an incinerator. The reduction in volume of the waste is not quite as great initially, but then there are no toxic byproducts created in the process either as there are in incineration. Unfortunately, there is still the question of how to safely dispose of the compacted waste. At this time, above- ground monitored storage seems to be the most prudent and safe option.

SPEAK NOW, OR FOREVER BREATHE NUCLEAR WASTE

We all breathe the same air. Atmospheric emissions of radioactive particles - whether routine or accidental - are irreversible and deadly. There is no possible way to "clean up" an airborne release of radioactivity. Incinerators across the country have resulted in significant increases in cancers, miscarriages, deformities and sickness in nearby communities - and these incinerators were "only" burning hazardous wastes, not radioactive materials. We must learn from these mistakes.

The incineration of radioactive and hazardous wastes at Los Alamos - jeopardizing the health and safety of all in the surrounding communities - for the sake of convenience in reducing waste volume is both outrageous and unwarranted. **The incineration of these wastes and consequent, irreparable damage to our atmosphere must not be allowed.** Approval of this incinerator lacking any safety regulations whatsoever would most certainly be a fatal mistake.

For further information call *Concerned Citizens for Nuclear Safety*
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