

**Subject:** RH comments  
**From:** Penny McMullen <pmsl@osogrande.com>  
**Date:** Thu, 31 Oct 2002 16:14:51 -0700  
**To:** Steve Zappe <steve\_zappe@nmenv.state.nm.us>



CLASS 3 PERMIT MODIFICATION RE: REMOTE-HANDLED TRU WASTE

The Sisters of Loretto **oppose** this proposed class 3 change to allow remote-handled transuranic waste to go to WIPP for the following reasons.

WIPP was given the permit to open for contact-handled waste. Adding waste that is so dangerous that it can only be handled by robots would drastically change the current role of WIPP. We are not convinced that WIPP can handle this kind of change. We are especially concerned about the radiation exposure risks to the workers, since there seems to be no data on this. **Such a drastic change in WIPP's role should not be considered without a separate full EIS on the effects of putting the RH waste at WIPP.**

**The modification request is quite incomplete and not technically justified.** The plans for confirmation of AK and characterization are especially weak, yet tremendously important. For example, DOE only wants to confirm AK on 10% of the containers, when it is known that AK is often incorrect, and when the existing permit requires 100% confirmation. Cutting to 10% is downright scary, especially concerning the more dangerous RH waste. Also, many of the references in the supporting documentation were impossible to find. I leave the listing of all the incomplete areas to those who make technical comments. I have read the documents and I am convinced that the request is not sufficient. Since the request is not complete, it causes me to wonder if the DOE is competent enough to transport and handle such dangerous material at WIPP.

DOE wants to be allowed to have 29 shipping containers in the parking area at one time, more than double the current limit. **It is too dangerous to have so much radioactive waste sitting outside the waste handling building.**

The request does not adequately explain how leaking containers would be dealt with. The request states that such leaking containers would be overpacked, but there are no overpacks large enough for the RH waste canisters. Since shipping RH waste is more dangerous than CH waste, I do not believe that leaking containers would or should be shipped back to their generator sites. **The best way to avoid this happening is not to ship to WIPP in the first place.**

Panel 1 needs to be closed ASAP because, as Jack Parker testified, its roof will collapse soon. So panel 2 needs to be opened right away for the permitted waste, and therefore the RH-TRU waste cannot go there. Panels 4 and 5 are not included in the current permit, so the RH waste cannot go there. **That leaves only panel 3 and I question the wisdom of putting that much RH in one spot.**

When the National Academy of Sciences recommended underground salt formations in 1956, it was assumed that the salt formation would be dry. It is now known that the salt is not dry, because water is seeping into the underground rooms and coming down the shafts. As water mixes with the waste and the decaying containers, a radioactive slurry is created with is more easily moved through the cracks and fissures in the salt. **RH waste in WIPP makes this possibility more serious.**

021052



The WIPP site is in an area that contains valuable resources such as oil, natural gas, potash, langbeinite, and water -- all of which is of great interest to industry. We do not believe that the DOE can keep people away for 10,000 years (remember that written language is only 5000 years old). If the brine reservoir below the repository were to be breached (even many years from now), the pressurized brine would push the radioactive slurry to the surface with an even greater force. **RH waste in WIPP makes this possibility much more serious.**

The karst conditions could spread any leakage far and fast. There are serious questions remaining about how long it would take contamination from WIPP to reach the Pecos River; one scientific estimate says less than 100 years. **RH waste in WIPP makes this possibility more serious.**

Climate changes caused a sinkhole near WIPP to collapse 200 feet in 20,000 years. At that rate, we could expect a sinkhole of 100 feet in the 10,000 years for which DOE is required to ensure containment of the waste. **RH waste in WIPP makes this possibility more serious.**

The decay of the waste and the barrels it is packed in creates flammable gases. The waste is also wrapped in plastic bags which can create a static electrical spark. The gases and spark could create a spontaneous fire or explosion. Also, the amount of gas generated may be enough to keep the salt rooms from closing around the waste as planned. **RH waste in WIPP makes this possibility more serious.**

According to the EPA Criteria for the Certification and Determination of WIPP's Compliance with 40 CFR Part 191, the Background Information Document, in explaining on page 5-2 how the WIPP storage rooms could become pressurized, states "the pressure within these materials may extrude the brine and compressed gas through natural, and perhaps even induced, fractures toward the regulatory boundaries." This is an admission that the very geology of the WIPP site makes it unlikely that DOE can ensure containment for 10,000 years. **RH waste in WIPP makes this possibility much more serious.**

Charles Loftus, the Project Engineer for the U.S. Army Corp Engineers at WIPP before it opened, found 30 major changes that were not made yet needed to be made before the site would be safe. Unless all of those 30 changes are put in place, WIPP is not safe for RH waste. There were problems with the air locks, the hot cell, and the filter building, to name just a few. **RH waste in WIPP makes this possibility more serious.** The safety of the WIPP site has also been questioned by the following scientists and their testimonies are in hearing records:

- Dr. Lenny Konikow, hydrologist with the National Academy of Sciences;
- Dr. John Fredehoeft, former EPA hydrologist;
- Dr. David Snow, hydrologist who worked as a private consultant to DOE;
- Randall Hertzman, another hydrologist;
- Dr. Richard Hayes Phillips, a PhD in geomorphology;
- Dr. Roger anderson, a local geologist who is familiar with the geology of NM.

Transportation of radioactive waste cannot be made totally safe. The DOE expects that there will be a number of transportation accidents, and admits that some accidents will release radiation. New Mexico has one of the highest DWI accident rate of the nation. The NM State Police reported that in 1988, there was an average of one accident nearly every week involving vehicles carrying hazardous waste. As the number of transports has increased, I expect that the number of accidents has also increased. **RH waste in WIPP makes this possibility more serious.**

Two recent accidents involved WIPP-bound trucks. In the first, a drunk driver rear-ended the truck. The waste went to WIPP but the workers found contamination the TRUPACT-II and the waste was sent back to the site it came from. In the second accident, the driver blacked out. That waste was also sent back because DOE was afraid of possible TRUPACT contamination. **With RH-TRU waste, I would expect the contamination to be worse.**

In the event of a serious nuclear accident, even the dust in the area will be contaminated. When the dust is inhaled or ingested by people living or working in that area, those people will contract cancer. Cancer is not the only health risk. Studies show that radiation damages genes which result in sterility and birth defects. These damaged genes are then passed on to succeeding generations.

The Health Workers Union reports that they have not been adequately trained to deal with nuclear accidents, and hospitals along the routes are not equipped to deal with de-contamination. **RH waste makes this situation more serious.** Every community along the routes needs a self-contained hospital unit where people can be isolated, tested and washed, and where even the water used for washing will need to be contained so it will not contaminate the community's sewer system. All persons who may have to respond, within each and every section of the route needs to receive full and extensive training. Sufficient equipment and clothing should be provided in every area. Paper suits are not sufficient. Paper stops alpha particles but not beta or gamma rays. Alpha particles are fatal if breathed or ingested. Most of the Chernobyl clean-up workers are now dead.

And what about all the other people in the area? Everyone living or working within a 5 mile radius all along every route should also be provided with sufficient protective clothing and masks.

Geiger counters and alpha particle detectors need to be stored for easy access all along the routes. Alpha particle detectors, though quite expensive, are necessary because plutonium emits alpha particles which cannot be detected by Geiger counters, and just one alpha particle breathed in by either a volunteer or innocent bystander will produce cancer in that person. While some of the equipment will be in the trucks, we cannot rely on that because they could be damaged in a serious accident.

Should a fire occur, a plutonium fire cannot be put out with water -- it needs sand. Every fire department will need to be supplied with a sufficient amount of sand to handle a serious accident involving fire.

Where is the funding for all of this preparation? Where is the funding for this kind of clean-up operation needed after an accident? And is there automatic, full cancer insurance for all persons exposed during a nuclear transportation accident?

The DOE has also admitted that radiation is emitted from the TRUPACT containers within a 5 mile radius as they pass through our towns, even without accidents. The DOE claims that this amount of radiation will be harmless. **What about the more serious emissions from waste that is so radioactive that it has to be remote handled?**

Most scientists today agree that the effects of low-level radiation ARE much more serious than we were originally aware of -- 1000 times more damaging than is commonly believed. Many scientists agree that there is NO level of radiation exposure that can be called truly safe when it is continuous over a specific area. This is because radiation has a cumulative effect, commonly called the Petcau effect after the study conducted by the Canadian Atomic Energy Dept, which found that radiation builds in the human body each time it is exposed.

Each of us who lives or works or goes to school along a nuclear transportation route, or who comes near a vehicle on the roads transporting nuclear materials, is exposed again and again and again, until the radiation build-up produces cancer in our bodies. Children, pregnant women and senior citizens are especially susceptible.

When I lived in New York, I worked with Dr. Bertell who is internationally recognized for her research on the effects of low-level radiation. When Dr. Bertell first began publishing her results showing that low-level radiation is much more lethal than previously thought, her government funding was cut off because government officials did not want such results to reach the American public. A shocking number of other scientists also lost their funding or their jobs when they started reporting similar results, and a few have survived suspicious life-threatening "accidents."

Dr. Robert March's testimony on April 9, 1990, (WIPP route hearing) included evidence of the U.S. government's pattern of deliberately keeping the health effects of radiation secret from the American public. Dr. Bertell uncovered an Atomic Energy Commission memo which recommended suppression of studies by Public Health Services because they "would cause adverse public reaction and law suits, and would jeopardize the testing program." Dr. Bertell also discovered case after case where the DOE lied to people involved in nuclear work. Many of us in the general public can no longer believe the DOE.

The Dept. of Transportation guidelines stress that "the State adequately consider public risk to all those who may be affected by radioactive material transportation." The numerous safeguards listed above for such transportation have not been followed and therefore **transporting highly lethal RH-TRU waste is no where near safe.**

Given all the testimony about the dangers of transporting radioactive material, **it makes much more sense to store the more dangerous RH waste at the site where it is generated**, in visible above-ground, constantly monitored, leak-proof encasements. It is not only safer, it is also more cost effective. And given the lack of preparedness, it is also the only moral alternative.

Given all that I have listed above, **there should be another separate EIS for RH-TRU waste going to WIPP, to prove that the DOE can absolutely guard for 10,000 years against the spread of contamination through karst and future sinkholes and intrusion by industry and transportation accidents and the possibility of pressurized gases finding or causing fractures, because retrieval will be impossible. Putting RH waste in WIPP makes all of these possibilities more serious.** And it boggles the mind to think of what might happen in the 250,000 years that plutonium remains lethal!

Almost every hazardous, toxic and radioactive waste dump around the nation is in an area where higher concentrations of minority peoples reside. The people of New Mexico feel that we are considered by our government to be stupid, unimportant and disposable because we are primarily a low-income minority population. (In the EA for the BSL-3 at LANL, to avoid the appearance of racial injustice, Hispanics were counted as White!)

We who inhabit the Earth at this time do not own the Earth. We are stewards who are responsible for caring for the Earth so we can pass it on as a safe environment for many generations to come. We do not have the right to leave a problem which we have created to future generations for them to figure out how to solve. We cannot say to them "well we made it safe for ourselves and our own children, but you have to figure out how to make it safe for yourselves." Until we know otherwise, it is quite possible that here is no way to make it safe for them. We do not have the right to endanger the

ground, water or air which future generations will need.

Thank you for your attention. I appreciate the extension for the comment period because I was out of town for much of September and October and would not have been able to respond earlier. Although, I had to laugh that the deadline is Halloween — is there a connection?

Sincerely,  
Penelope McMullen  
Sisters of Loretto  
324 Sanchez St.  
Santa Fe, NM 87505

983-1251  
pmsl@osogrande.com

Oct. 31, 2002