

Waste Sampling to be eliminated for WIPP?

Since the Department of Energy (DOE) opened the Waste Isolation Pilot Plant (WIPP) in 1999, the transuranic (TRU-plutonium-contaminated) waste has been subjected to chemical sampling and laboratory analysis to determine what toxic chemicals are present before the waste can be shipped to WIPP. Toxic chemicals pose health risks to workers and the public, in addition to the dangers from the radioactivity in each container. Thus, the WIPP operating permit issued by the New Mexico Environment Department (NMED) has required headspace gas sampling of non-solidified waste and coring of solidified waste to help determine toxic chemicals and their concentrations. **DOE now wants to eliminate all requirements for headspace gas and solids sampling from the WIPP permit. But people can speak out about DOE's plans!**

What are DOE's Plans?

On December 12, 2012, DOE and its co-permittee, Nuclear Waste Partnership LLC, submitted a class 2 *Permit Modification Request - Revise Waste Analysis Plan Waste Characterization Methods* so that it can eliminate the chemical sampling and analysis requirements of the WIPP permit Waste Analysis Plan (WAP). If NMED approves the modification request, hundreds of provisions related to sampling would be eliminated and other provisions would be changed or eliminated.

What is Transuranic (TRU-Plutonium-Contaminated) Waste?

All TRU waste is dangerous to humans and the environment for thousands of generations because plutonium is radioactive for hundreds of thousands of years and in very small amounts will cause lung cancer and other diseases if it is inhaled or ingested. Most TRU waste also contains toxic chemicals that were used in manufacturing plutonium pits for nuclear weapons and that are on the equipment, clothing, tools, and other materials in the waste.

Why was sampling included in the Permit?

U.S. Environmental Protection Agency (EPA) regulations provide that a permit for any waste facility managing toxic chemicals must include requirements for waste characterization to determine what hazardous materials are in the waste. Such characterization can be by using "acceptable knowledge" (AK) and/or sampling and laboratory analysis. EPA guidance states: "Wherever feasible, the preferred method to meet the waste analysis requirements is to conduct sampling and laboratory analysis because it is more accurate and defensible than other options....This preference for corroborative testing, even though it arguably may be redundant, is designed to ensure that the waste is what others have represented it to be." For WIPP, the permit requires that sampling is done of a representative number of containers in a waste stream (waste generated from a similar process). The permit prohibits wastes and chemicals that are explosive, ignitable, corrosive, reactive, or chemically incompatible. The permit also limits the amounts of some specific chemicals in the underground air. Thus, sampling is required to help identify the particular chemicals in a waste stream (assign Hazardous Waste Numbers) and to determine concentrations of those chemicals in a waste stream.

Why does DOE want to eliminate sampling?

The request is "to eliminate redundancy in waste characterization by removing the requirement for generator/storage sites to characterize their wastes using chemical sampling/analysis, thereby reducing waste characterization complexity, cost, and personnel radiation exposure. The information gained from chemical sampling/analysis activities is not used to make decisions regarding the storage and disposal of transuranic (TRU) mixed waste at the WIPP facility and is not required to meet the Resource Conservation and Recovery Act (RCRA) regulations."

What are concerns about eliminating sampling?

1. The modification request admits that some sampling will still be needed: “generator/storage sites may need to conduct chemical sampling/analysis of some waste streams to resolve discrepancies in AK information and complete a hazardous waste determination.” It is the WIPP permit that must require that such sampling be done, and that proper procedures with adequate quality assurance are followed before the waste is shipped. If sampling is eliminated, there is no requirement that such needed sampling would be done and that it would follow proper procedures.
2. Although the request states that sampling is not “used to make decisions,” sampling results were used to identify which waste streams contained large amounts of carbon tetrachloride that resulted in decisions to stop shipments of those waste streams in 2010 because of the amounts of the carcinogen. Future decisions also could use information from sampling and analysis.
3. About half of the TRU waste allowed at WIPP has been shipped. Thus, there are at least dozens of waste streams that are planned for shipment to WIPP that have not had the required sampling and laboratory analysis. The Hanford, Washington site has tens of thousands of cubic meters of waste and has done very little sampling and analysis. It is premature to eliminate sampling and analysis when so much waste has not been sampled.
4. Before such a major change in characterization requirements is made, DOE should follow the first recommendation of the National Academy of Sciences (NAS) 2004 report Improving the Characterization Program for Contact-Handled Transuranic Waste Bound for the Waste Isolation Pilot Plant. The recommendation stated: “DOE should use a systematic and quantitative approach to determine the value of the information currently obtained by its waste characterization activities and the impact of changes to them. This approach should also be used to support permit modification requests and communicate with the public.” DOE has not done such an analysis, has not included such an approach with the sampling modification request, nor has it provided such information to the public. Rather than proposing piecemeal changes to the waste characterization requirements, DOE should first follow the NAS recommendation.

What Can I Do?

Submit written comments to the New Mexico Environment Department (NMED). Tell NMED: *I am very concerned that eliminating sampling of waste bound for WIPP would reduce health and safety protections because such analysis is still needed, including for the many waste streams that have not yet been sampled. NMED should deny the request. Any future requests to reduce or eliminate sampling should only be made after the kind of systematic approach recommended by the National Academy of Sciences is carried out and made public and after representative sampling is done for waste streams that have not yet been shipped to WIPP.*

The deadline for written comments to NMED is February 18, 2013. Submit to:

Trais Kliphuis, New Mexico Environment Department, 2905 Rodeo Park Drive East, Building 1, Santa Fe, NM 87505, or

E-mail: trais.kliphuis@state.nm.us

The complete 301-page permit modification request (13 MB) can be found at:

http://www.wipp.energy.gov/rcradox/rfc/Class_2_PMR.pdf

For more information:

Southwest Research and Information Center. (505) 262-1862. www.sric.org

Citizens for Alternatives to Radioactive Dumping. (505) 242-5511. contactus@cardnm.org

Concerned Citizens for Nuclear Safety. (505) 986-1973. www.nuclearactive.org

Nuclear Watch New Mexico. (505) 989-7342. www.nukewatch.org

January 28, 2013