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To: Ms. Trais Kliphuis
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive, Building E
Santa Fe, New Mexico 87505
trais.kliphuis@state.nm.us



Dear Ms. Kliphuis:

Our names are John Heaton and Dale Janway and we are submitting this to you as, respectively, the chair of the Carlsbad Mayor's Nuclear Task Force and the Carlsbad Mayor. We are submitting this document in support of the Department of Energy's Class 3 permit modification application, and we encourage the New Mexico Environment Department to approve this modification for the following reasons:

PANEL CLOSURE REDESIGN

Background: The original plans for panel closure at WIPP called for a concrete monolith and an explosion-isolation wall to be placed outside of each drift. The explosion wall was part of the design to address the potential build-up of hydrogen and the possibility of an explosion during operations. This was a worker-safety/Hazardous Facility (RCRA) concern. From a radionuclide perspective, the concrete monolith was included to isolate one panel from another, mainly to isolate brine flowing from one panel to another. The explosion-isolation wall would also protect workers from potential exposure to the volatile organic compounds (VOCs) within some of the waste. The new panel design calls for 100 feet of run-of-mine salt between two bulkheads.

WHY IT IS A GOOD IDEA

More than 1000 air samples from all interior reaches of WIPP Panels 3 and 4 have been collected. Every methane sample has had a "Non Detectable" result at a minimum detection levels of about 30 parts per million. Generated hydrogen in these same samples was also well below the action levels specified in the permit. The monitoring results indicate that the initial WIPP planning was overly conservative and that explosion walls and robust panel closures would not be needed during the operational lifetime of WIPP.



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One of the panel closure purposes is to protect the workers from exposure to harmful volatile gases in the waste. But measurements prove that levels are well below health concerns even without these big panel closures. It is ironic that building the panel closures to the origin design will create a lot more industrial safety risk than the new design – just the opposite of what they are supposed to do. The likelihood of accidents and equipment failures is proportional to the effort expended, and the original design will take a lot more effort and engineering to accomplish, but with no added protection for workers, the public and the environment.

The original design is extremely expensive. Each explosion-isolation wall costs around \$1.5 million dollars per panel, while the concrete barriers would cost in the \$5 to 6 million range. So far, a total of 6 explosion-isolation walls have been placed in panels 1, 2, and 5. It would cost in the vicinity \$75 to 100 million to use the Option D Panel Closure plan for all 10 planned panels. Additionally, the design elements of the currently-required concrete barrier do not appear to be practical.

The cost of the plan DOE is now proposing, the “Run-Of-Mine Panel Closure,” would be negligible by comparison. This plan basically involves placing 100 feet of salt between two steel bulkheads as a closure in each panel. The DOE has spent several years conducting a study of panels, and the analyses have indicated that this new proposal will contain Volatile Organic Compounds (VOC) as effectively as the concrete block explosion-isolation wall. In other words, WIPP’s workers will not face any increased risk if this modification is approved. Actually, operational and construction risks would be less for the new design.

And the salt is free – it’s the same salt that DOE is mining from other areas in WIPP to create additional disposal space. And since DOE doesn’t have to move this mined salt to the surface and manage it there, the use of the mined salt as a panel closure actually saves taxpayer dollars.

In summary- several years of research shows that a risk of explosion does not exist and the “Run-Of-Mine Salt” closure offers the same protection from VOCs. It is a more practical, cost-effective method of panel closure with no increased risk. Using salt as the closure is a simple, efficient design that continues to protect our workers throughout WIPP’s lifecycle.

WIPP has a number of infrastructure needs, and if worker safety is the issue, the money could be much better spent meeting those needs. Money spent on mine equipment, fire trucks and road maintenance, for example, is a legitimate investment toward ensuring the continued safety of WIPP’s employees.

Salt does a wonderful job of isolating by itself. In a given panel at WIPP, we already rely on the salt formation to isolate waste from every other direction other than the panel’s access point. If the Run-Of-Mine Panel Closure is approved, over time, creep closure of the drifts will ensure that the salt consolidates to a point similar to intact salt.

This proposed change has no significant effect when it comes to WIPP's long term isolation performance. In fact, filling an area that was previously salt with salt is a less intrusive procedure than building thick concrete structures. We're letting nature heal itself. WIPP's operational success is why governments from around the world are paying attention. One reason for that success is a willingness to evaluate the situation and look for ways to improve. Let's put our scientific study to good use.

REPOSITORY RECONFIGURATION

Background: The DOE is proposing a change to the configuration of the WIPP repository relative to the location of disposal Panels 9 and 10. The new panels are to be located south of Panels 4 and 5 and would be the same nominal dimensions as the previous eight panels. The new panels will be designated as Panels 9A and 10A. The request is based on geomechanical considerations that make it more advantageous than the location currently proposed for Panels 9 and 10, which are the main access drifts (used to get to the other panels).

WHY IT IS A GOOD IDEA

The main access drifts were mined with the intent they would remain open and useable for the entire 25 to 30 year life of the repository, but they would have to be enlarged (height and width) to use as disposal panels. These drifts are decades old; significant ground control efforts have been expended in these drifts over the years to ensure mine safety. Widening the drifts to prepare for waste disposal in that locale may carry with it unknown and certainly unintended mine safety issues that reliance on proposed Panels 9A and 10A will enable WIPP to avoid.

WIPP's "just in time" mining system used for its first eight panels is a tried and true practice that we've plenty experience handling safely. The main drifts are one of the oldest parts of the mine, however, and enlarging them will significantly increase the risks of fracturing. As a resident of Carlsbad, we have concerns that the current plan for panels 9 and 10, prior to this proposed change, is not the optimal choice.

It doesn't take an engineer or geologist to realize that mining two new panels is much safer than trying to enlarge the entire central portion of WIPP. As someone with plenty of friends and neighbors who work in the WIPP underground, we strongly support a Panel 9 and Panel 10 similar to the other eight.

9A and 10A are strong locations due to current knowledge of the WIPP underground. Mining on the south end of the facility would be the least intrusive location for two more panels.

Volatile Organic Compound Monitoring

Background: The target analytes for Volatile Organic Compound (VOC) monitoring program at the WIPP facility were established in the Permit in 1998 by selecting the VOCs that constituted approximately 99 percent of the risk associated with emissions from the TRU waste disposed in the repository. These analytes were chosen using an U. S. Environmental Protection Agency (EPA) process for risk screening. Two parameters used in this risk screening that have changed since the original calculations are the average concentration of VOCs in the waste and the

recommended EPA risk factors. Therefore, the Permittees are proposing to update the list of target compounds and the associated risk factors. In addition, the Permittees are proposing to make changes to the methods of demonstrating compliance to the environmental performance standards for the WIPP facility and are proposing changes to the VOC monitoring program to enhance the data quality and reliability.

WHY IT IS A GOOD IDEA

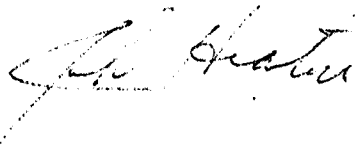
Some of these proposed changes are updates based on the fact that the DOE now has more inventory.

The proposed changes to monitoring make more sense, as they do a better overall job of monitoring to make sure workers aren't at risk.

These proposed changes all continue to ensure that WIPP is safe. WIPP is still maintaining its rigorous safety standards.

Just because something is not on the "target compound" list does not mean WIPP would not be able to detect it from monitoring, should it be present in the underground. The concentration of target compounds are subject to accurate quantitation, while the concentration of non-target compounds are estimated. If non-targets show up often enough, they may become targets and have more precise concentrations calculated. In fact, this permit modification will make it much easier to add other compounds to the target list, should they become significant in the future.

Thank you for your consideration,



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