



Department of Energy
 Carlsbad Area Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221

FEB 15 1996

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NM ENVIRONMENT DEPARTMENT
 OFFICE OF THE SECRETARY

Ed Kelly, Ph.D.
 New Mexico Environment Department
 P.O. Box 26110
 Santa Fe, N.M. 87502

Dear Dr. Kelly:

As you are aware, the Department of Energy (DOE) has been working with the staff at the Hazardous and Radioactive Waste Bureau to complete the necessary steps for permitting the Waste Isolation Pilot Plant (WIPP) as a hazardous waste facility. Our meetings and discussions have been fruitful and have led to many improvements in the permit application submitted by the DOE. We have provided your staff with the requested additional information needed to proceed with the permitting process and have provided a significant amount of additional detail that will be useful in addressing public comments. However, in these area I have concerns about the direction of the permitting process: Remote Handled (RH) waste, monitoring requirements, and risk analysis. I want to briefly explain the DOE's positions on these three topics.

With regard to RH waste, the DOE's concern is that the New Mexico Environment Department (NMED) will request that RH waste be removed from the application or impose a condition that forbids its shipment. The DOE does not believe that either stipulation is needed. In our application, the DOE maintains that RH waste is similar to contact handled (CH) waste, with the exception of the higher radioactivity which is characteristic of RH waste. This higher radioactivity requires that the RH waste process be different from the CH waste process in two ways. First, as a result of high radiation fields waste characterization must be performed remotely; and second, the handling equipment at the WIPP must be shielded so that operators do not come in contact with the waste containers. The DOE states in the application that, with regard to characterization of RH waste, it intends to collect the same parameters collected for CH waste, using the same techniques. We further acknowledge that some techniques may need to be altered to accommodate the high radiation fields. Such alterations, under the conditions of the application, would have to be reviewed by the NMED prior to their use. In other words, if RH waste can be managed in the manner represented in the application, the DOE should be allowed to proceed with RH waste management at WIPP once the permit is issued. If we find we cannot manage it as stated in the application, we are required by the NMED's hazardous waste rules to seek

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modifications from the NMED prior to proceeding. In either case, RH waste management would be constrained by the permit.

Our concern regarding monitoring is that measures will be required for monitoring the groundwater and air pathways that are unnecessary and unproductive. There are two distinct issues here. First, with regard to groundwater, the WIPP site was selected so that waste placed in it will be isolated from the environment for many thousands of years. The salt is nearly impermeable and the shafts will be sealed in a manner that provides both short term and long term barriers to the movement of fluid. All of these measures are described in the application. The movement of contaminants into the groundwater during the 30-year period covered by the permit after closure of the facility is highly unlikely, if not impossible. Therefore, the inclusion of a groundwater monitoring program that monitors for contaminant migration is not necessary and would only result in a commitment of taxpayer resources with no real benefit. The DOE does plan to continue the present groundwater sampling program which is directed at increasing our understanding of the characteristics of the groundwater regime in the vicinity of the site. This information is useful in making and supporting the long term projections of performance for the disposal system. Regarding the emission of volatile organics, the DOE has modeled this as the only public exposure pathway that results from operations at the WIPP. We have designed operations and waste area closures to reduce emissions so that the exposures at no time will exceed one tenth of those allowed by the regulations. This one-tenth target was established by the Environmental Protection Agency as the level where compliance monitoring is not needed. We have elected this approach because the levels of contaminants that are expected are extremely low and will be difficult, if not impossible, to measure given the current state of monitoring technology and the relatively high background levels in the area. The DOE will be able to assess its ability to maintain the one-tenth limit because the organics in each container will be measured and the inventory in any area of the facility can be assessed using the waste characterization data.

The final area of concern deals with the risk assessment that the DOE has performed for the application. This risk assessment demonstrates that there are no unacceptable risks to human health and the environment as the result of WIPP operations. The NMED's contractor has indicated that the DOE's calculations are reasonable and has requested some "fine-tuning." The DOE has responded to the request for additional information in all areas except one. This area has to do with the request to prepare and include in the application a bounding calculation that assumes a worker is exposed to all VOC emissions in an area where a roof fall crushes all of the containers in a waste disposal room. This request disturbs us for a number of reasons. The WIPP would never have an employee in a position where such an exposure could occur. The activities of personnel in areas where

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waste is emplaced are carefully controlled, and the condition of the roof is understood, modeled and predictable such, that any fall would either be precluded prior to placing waste in an area, or the area would be bypassed. Roof falls and their consequences are very important safety concerns at the WIPP, and we have developed one of the most advanced roof control programs in the world. We have every confidence that it will be effective. The U.S. Mine Safety and Health Administration (MSHA) which reviews the program periodically and inspects our facility quarterly would concur with our assessment of our roof control system. Inclusion in our application of accident scenarios for events that are not credible is not a precedent that the DOE seeks to establish. Such events are not required by the regulations. The DOE would be glad to provide the NMED with such bounding calculations outside the context of this permit application.

The DOE looks forward to future opportunities to discuss these and other issues with you and your staff. We appreciate the time taken by the NMED to meet with us to discuss topics of importance to the permitting process.

If you have any questions regarding these issues, or would like to discuss them further, please call me at (505) 234-7300.

Sincerely,


George E. Dials
Manager

cc:

B. Garcia, NMED:
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