STATE OF NEW MEXICO
BEFORE THE SECRETARY OF THE ENVIRONMENT

IN THE MATTER OF THE CLASS 2	)
MODIFICATION FOR SHIELDED	)
CONTAINERS FOR REMOTE-HANDLED	)
TRANSURANIC WASTE AT THE	)
WASTE ISOLATION PILOT PLANT	)
U.S. EPA No. NM4890139088	)

CITIZEN APPELLANTS' MOTION FOR STAY PENDING APPEAL

Southwest Research and Information Center and Margaret Elizabeth Richards ("Citizen Appellants") have filed their notice of appeal from the decision of the Director, Resource Protection Division, dated November 1, 2012, approving with changes the Permit Modification Request ("PMR") to authorize the use of shielded containers to ship, manage, store, and dispose of remote-handled ("RH") transuranic ("TRU") waste[1] at the Waste Isolation Pilot Plant ("WIPP"). Citizen Appellants now seek an order from the Department staying the effectiveness of that decision pending the decision by the New Mexico Court of Appeals.

Citizen Appellants show herein that (1) there is a likelihood that Citizen Appellants will prevail on the merits of the appeal, (2) irreparable harm will occur if a stay is not granted, (3) a stay will not cause substantial harm to other persons, and (4) a stay will not harm the public interest. *Tenneco Oil Co. v. Water Quality Control Commission,* 105 N.M. 708, 710, 736 P.2d 986 (Ct. App. 1986).

[1] Under § 2 of the WIPP Land Withdrawal Act, Pub. L. No. 102-579, contact-handled transuranic waste is defined as transuranic waste with a surface dose rate not greater than 200 millirem per hour. Remote-handled transuranic waste has a surface dose rate of 200 millirem per hour or greater.

ARGUMENT

The Department on November 1, 2012 authorized the U.S. Department of Energy ("DOE") and Nuclear Waste Partnership LLC, holders of the Hazardous Waste Act permit for the Waste Isolation Pilot Plant (collectively, the "Permittees") to receive, manage, and dispose of RH TRU waste in a new type of container, using new procedures, and at new locations, from which locations RH waste had previously been prohibited. The Department's authorization implicates matters such as the nature of the packaging, the calculation of the use of available RH disposal capacity, management of potential releases, and permissible disposal configurations. The nature of the permit modification is clearly complex. It has raised significant public concern. Further, the decision raises compelling legal questions for resolution by the Court of Appeals.

We show, first, that Citizen Appellants are likely to prevail on their appeal. An application for a permit modification should be denied if it is (a) incomplete, (b) fails to comply with applicable requirements, or (c) fails to protect human health or the environment. An application proposed for Class 2 procedures must be denied or reclassified as Class 3 if there is (a) significant public concern or (b) the modification is complex. Each of these criteria provides grounds for vacating the Department's decision. We address them in order:

a. The application is incomplete

Under 40 C.F.R. § 270.42(b)(iii) an application must "explain[] why the modification is needed." It is plain that Permittees need this modification to make up for the RH disposal capacity that Permittees have lost in WIPP operations over the years. The authorized method of emplacing RH waste, using canisters emplaced in the walls of WIPP rooms, requires that RH waste be emplaced in a room before CH disposal operations take place. Permittees, however, proceeded to emplace CH waste in three disposal rooms before emplacing RH waste, causing

themselves to lose the unused RH disposal capacity. Permittees are allowed to dispose of up to 7,080 m^3 of RH waste at WIPP. (Permit Att. B at B-13). But in Panels 1 through 5 they emplaced only 462 canisters, containing 411.18 m^3 of waste.[2] (Nov. 1, 2012 decision, at page 4-2, Table 4.1.1.). Panels 6, 7, and 8 have a total capacity of 2,060 canisters, or 1,834 m^3 (Table 4.1.1). Presumably, Panels 9 and 10 will be the same size as Panels 1 through 8 and will have a capacity of 1,460 canisters, or 1,300 m^3. Thus, Permittees can only dispose of 3,545.18 m^3 of RH waste in canisters—well short of the total repository limit of 7080 m^3 and the currently estimated inventory of RH waste. (2012 WIPP Inventory, DOE/TRU-12-3425). Moreover, the history of Panels 4 and 5 shows that, even when emplacing RH canisters, Permittees have not used the RH capacity available to them.

Had Permittees been authorized to dispose of RH waste in canisters before CH disposal began, and had they used the available RH capacity, they conceivably could have disposed of about 6497 m^3 (730 x 10 x 0.89 m^3) of RH waste in canisters, approaching the repository limit. But they did not do this and instead sacrificed their RH capacity in the interest of quickly disposing of CH waste. Now, with WIPP half full, they are asking for permission to use a second method for RH disposal, which would allow them to emplace RH waste within the rooms, interspersed among the containers of CH waste. There is a price to be paid for the new method, *inter alia,* in the form of CH disposal delayed and space sacrificed and also in terms of public health and safety.

The application does not disclose Permittees' need for an additional RH disposal method, thus avoiding discussion of the cost in terms of CH emplacement delays, space lost or other costs. An explanation of the need would contain useful information, such as the plan for usage

[2] Each canister may contain 0.89 m^3 of waste.

of the new RH capacity, indicating the schedule for shipping of RH waste and the amount of CH disposal capacity lost. The rules require a clear statement of the need for a modification, and failure to provide that is a legal deficiency.

There are other material omissions. The initial 2005-2006 RH waste permit modification raised complex questions concerning the management of RH waste, because its markedly higher radiation and hazardous chemicals raise major safety concerns. Similar issues are presented here. For instance, the fundamental assumption for use of the shielded container is that radiation at the shielded surface is less than 200 mrem/hr. Permittees state only that the surface dose rate will be measured at the time of shipment. (PMR at 2). There is no discussion of later events, such as shifting of waste during shipping, that could cause the dose rate to increase. The Department refers to "packaging requirements to minimize shifting" (CR 4[3]), but these are not contained in the PMR or the modification. It is also said that, for safety, DOE will develop new procedures for stacking 3-packs of RH waste in shielded containers, but the PMR does not contain these procedures, nor does the modification. (CR 34). The Department also says that Permittees are designing a procedure for overpacking of damaged shielded containers. (CR 2, 16). However, no such procedure is incorporated in the PMR or the modification. These omitted items clearly bear upon protection of health, safety and the environment. Indeed, the Department recognizes the need for these procedures and states that they are under development. But without these items, it cannot be said that the introduction of shielded containers would protect human health and the environment, and the PMR is incomplete.

The PMR is also incomplete for failure to discuss events that might result in releases of radionuclides and contamination of WIPP. It is a given that releases of RH waste have much

[3] The Department's November 1, 2012 Response to Comments is cited by the abbreviation "CR."

greater consequences than releases of CH waste. Further, the containers in use—shielded containers with 1726 pounds of shielding and 3-packs with new packaging elements (PMR at 1)—have not been examined in any previous application. But Permittees have not addressed the possible nature and consequences of releases. Neither have they discussed the specific process—and the risks—of overpacking a faulty shielded container, which would be the main method of controlling a container release. (CR 2, 16).

In light of the several-orders-of-magnitude greater risk from uncontrolled RH wastes, compared with CH waste, the PMR should contain a limit on the amount of RH waste in shielded containers to be stored within areas previously available only to CH waste. Before this modification, the CH Bay of the Waste Handling Building was entirely barred to RH waste, and the Parking Area Unit had specific limits for RH waste. The PMR proposes no limits, other than the existing quantity limits for CH waste, applicable to RH waste in shielded containers in these locations.

Further, Permittees state that adoption of the shielded containers will introduce various efficiencies in waste management. (CR 43, 44, 45, 46). However, Permittees cannot provide any factual basis for claiming efficiencies. Such information is clearly relevant to the need to adopt the modifications. Relevant information has been omitted.

b. The application conflicts with applicable requirements.

The PMR, as changed by the Department and granted, conflicts with applicable legal requirements. WIPP is limited to receiving 7080 m^3 of RH waste for disposal. (Permit Att. B at B-13). In addition, Table 4.1.1 of the existing permit contains maximum capacity limits for CH waste and RH waste for each permitted panel. Assuming, as seems accurate, that the additional panels 9 and 10 (not yet permitted) each are allowed to receive 650 m^3 of RH waste, the

maximum amount of RH waste allowed to be disposed of at WIPP pursuant to Table 4.1.1 will be 3545 m^3.

Permittees proposed permit language stating that "shielded containers will be managed, stored, and disposed as CH TRU mixed waste, but will be counted towards the volume limit associated with RH TRU mixed waste." (PMR, Sec. 3.3.1.8)(*See* PMR at 4, 10). Thus, under the proposal, shielded containers with RH waste would be counted against the maximum RH capacity limits in Table 4.1.1. But, after the public comment period, the Department struck the language stating that RH TRU waste in sealed containers "will be counted towards the volume limit associated with RH TRU mixed waste." (Sec. 3.3.1.8, Permit Part 3, page 3-7 of 9). Therefore, under the Department's change, shielded containers containing RH waste will only be counted against the maximum capacity limits for CH TRU waste, also in Table 4.1.1. Such a change would serve the DOE objective to recover lost RH capacity using the shielded containers. However, with this change the modified permit would authorize disposal of RH TRU waste up to the maximum capacity allowed for CH TRU waste—roughly 93,750 m^3, which is the CH TRU capacity for five remaining panels. Thus, the modification authorizes a massive capacity change, blatantly violating the 7080 m^3 limit. And what is the technical basis for using such limit? None of this information is in the abbreviated record of the present application.

Other provisions of the modification conflict with existing law. Section 3.3.1.8 states that "[s]hielded containers may be overpacked into a standard waste box or ten drum overpack." Overpacking of a shielded container may be carried out when there has been a release of waste from it. After overpacking, the overpacked container is stored and managed as CH waste. But a shielded container will contain RH waste. A standard waste box or a ten drum overpack is only authorized to receive CH waste. (See Permit Section A1-1b(1)). Permittees have made no effort

to show that these CH containers can safely receive and store RH waste, and be managed as CH waste, as indeed they could not. Permittees' assertion that a release could be managed under Permit Section D-4d(6) (PMR at 5) is irrelevant, because that section refers to procedures for management of RH waste in containers and locations already authorized for RH waste—not to releases of RH waste in areas previously prohibited, to which it would be brought in shielded containers. To authorize overpacking of shielded containers in CH containers violates several terms of the permit.

Unlike CH waste, RH waste in shielded containers will be shipped, stored, and disposed of in 3-pack units. The existing permit allows the stacking of containers up to three high in disposal rooms. (Permit Section A2-1). Permittees have conceded, however, that 3-packs of shielded containers cannot safely be stacked three-high "in order to meet the stacking stability requirements of Permit attachment A2, Section A2-2b." (PMR at 5) Thus, the practice of stacking 3-packs three-high, which is allowed under the modification, clearly "fail[s] to protect human health and the environment." (40 C.F.R. § 270.42(b)(7)(iii)). Since the modification authorizes it, the modification should have been denied or considered under Class 3 procedures.

c. The application raises complex issues and issues of significant public concern.

The rules call for Class 3 procedures for a proposed modification that raises complex issues or generates significant public concern. The Department previously reviewed a nearly identical application and, by its letter dated December 22, 2011, ruled that the application is too complex for the abbreviated Class 2 procedures. (letter, Martin to Ziemianski and Sharif, Dec. 22, 2011[4]). The Department's letter states:

[4] The Department retracted the December 22, 2011 letter in a letter dated December,28, 2011. At no time has the Department offered any reason for such retraction.

> "Further, under 40 CFR § 270.42(b)(6)(i)(C)(2), the Department Secretary may determine that the modification request must be processed as a Class 3 modification because the complex nature of the changes require the more extensive Class 3 procedures. The requested modification would require complex changes to the operation of the facility. For example, the PMR likely will necessitate additional procedures and equipment for unloading, transporting, and overpacking remote handled transuranic waste in shielded containers. As another example, the Department will need to evaluate whether the proposed modification complies with 40 CFR § 264.601(c)(6), which addresses the potential for health risks caused by human exposure to waste constituents. These issues are more properly addressed as a Class 3 modification.
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> Additionally, the regulations provide that a permit modification for a container unit that will 'require additional or different management practices from those authorized in the permit' must be treated as a Class 3 modification. 40 CFR § 270.42, Appendix I, Item F.3.a. The Department has concluded that the requested modification will likely necessitate changes to the permit to authorize additional or different management practices for containers with remote handled waste."

Thus, the Department called for Class 3 procedures.

Indeed, on January 31, 2012, addressing the same PMR to authorize shielded containers, the Department ruled that the extent of the modifications made Class 2 procedures inapplicable, and Class 3 is required:

> "Under 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(b)(7)), the Department may deny a Class 2 permit modification request if the modification request is incomplete; it does not comply with applicable requirements; or it fails to protect human health and the environment. During its technical review of the modification request for shielded containers, the Department noted that numerous sections in Part 3, Attachment A1, A2, C1, D, E and G must be revised to conform to the permit modification. In addition, 40 CFR 270.42(b), Appendix I, item F.3.a [*sic*] states changes of storage of different wastes in containers that do not require additional or different management practices from those authorized in the permit are Class 2 changes. The use of shielded containers does not fit this category as the facility will not be using different waste but will be using different containers.
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> Numerous public commenters identified similar issues with the modification request. Furthermore, the Department does not have sufficient information to correct the technical inadequacies in the application and approve the modifications 'with changes' under 20.4.1.900 (incorporating 40 CFR § 270.42(b)(6)(i)(A)). Consequently, the Department is denying the permit modification request to add provisions for shielded containers." (letter, Martin to Ziemianski and Sharif, Jan. 31, 2012).

The Department has since changed its position, but it has offered no reasoned explanation for its departure from the initial determinations, quoted above. The Department's reasoning in the two letters quoted above correctly calls for Class 3 treatment.

Under 40 C.F.R. § 270.42 Appx. I, a modification request specifically requires Class 3 procedures in two relevant circumstances: (a) if modification or addition of container units results in greater than 25% increase in the facility's container storage capacity and (b) if a modification would authorize storage of different waste in containers that require additional or different management practices from those authorized in the permit. (40 C.F.R. § 270.42 Appx. I, F.1.a, F.3.a.). Both provisions apply here.

The changes in capacity limits for RH waste disposal that will apply under this modification are, standing alone, a complex and important issue. Although Permittees state broadly that "no increase in the volume of CH or RH TRU mixed waste which is permitted to be stored or emplaced at the WIPP facility is needed to accommodate this volume of waste" (PMR at 3; see PMR at 4, CR 12), they operate on the assumption that "[w]henever transuranic waste is shipped in the shielded container payload container and the resulting surface dose rate is not greater than 200 mrem/hr then it is, by statute and DOE policy, *CH TRU mixed waste*" (PMR at 2)(*emphasis supplied*). The implication is that RH waste in shielded containers will only be subject to the Permit limits on disposal of CH waste.[5]

The Department's post-comment changes to the PMR—eliminating the requirement that RH waste in shielded containers be counted against the maximum RH capacity limits in the permit—render the issues even more complex. If RH waste in shielded containers does not count against

[5] There is also Permittees' statement that the "emplaced volume will be counted against the RH TRU mixed waste volume limits specified in the permit," (PMR at 4; *see also* PMR at 10), but this is not expressly stated in the Permit, and the Department's change nullified Permittees' statement in any case.

the RH capacity limits in Table 4.1.1, or even against the total RH capacity limit in Attachment B, the only applicable limit is the limit for CH waste. On this basis, the RH capacity increase far exceeds the 25% capacity increase that requires that the modification receive Class 3 treatment. (40 C.F.R. § 270.42, Appx. I, F.1.a). Even if the RH capacity is only viewed as increased from 3545 m^3 to 7080 m^3, the increase is far more than 25% and clearly requires Class 3 treatment. (*id.*).

In addition, the PMR clearly involves wastes and management practices different from those authorized for CH waste, placing the modification squarely within 40 C.F.R. § 270.42 Appx. I, F.3.a, "Storage of different wastes in containers . . . [t]hat require additional or different management practices from those authorized in the permit."

The PMR calls for changes at numerous stages of WIPP's operation. The shielded container is "a new payload container" with multiple layers of lead and steel, weighing nearly a ton. (PMR at 1). The supposition that RH waste can safely be managed in steel containers with lead shielding rests upon RH-specific "packaging requirements to minimize shifting" (CR 4). The 3-pack package is an innovation as well and is managed differently from CH waste shipments. (*See* PMR at 5). In event of contamination or release from a container, the 3-pack must be disassembled for overpacking. (See CR 16). The overpacking must, by some method not yet known or described in the permit, contain the more intense radiation from RH waste. Shielded containers will be disposed of by stacking them in some pattern, not yet known or defined in the permit, that creates a stable waste stack. Thus, contrary to Permittees' wishful language, RH waste in shielded containers is plainly not "waste that will be managed and stored as CH waste." (Permit Section E-1b(1)).

Indeed, Permittees concede that the modification involves "waste (RH TRU mixed waste) [that] is approved for management in the RH Complex and not in the CH Bay, and therefore, as discussed below, it is a different waste in a particular unit." (PMR at 7). Further, the Department has correctly noted that use of shielded containers calls for "additional procedures and equipment for unloading, transporting, and overpacking remote handled transuranic waste in shielded containers." (letter dated December 22, 2011). Class 3 procedures are required by regulation.

RH waste is one of the most delicate issues in WIPP permitting. The initial modification request that authorized some RH waste was filed in 2002, revised in 2005, underwent Class 3 procedures, required 16 days of settlement conferences, and reached a decision on October 16, 2006. The present Departmental action, allowing RH waste in shielded containers limited only by the CH capacity limits, may be even more consequential than the 2006 decision. Plainly, such a decision entails complexities that are not even suggested in the Permittees' request. Clearly, a Class 3 process is required.

It cannot be denied that there is substantial public concern about this proposal to expand the disposal of RH waste. The Secretary previously determined that public concern required Class 3 procedures for a PMR concerning shielded containers nearly identical to the present one. (letter, Martin to Ziemianski and Sharif, Dec. 22, 2011):

> "Under 40 CFR § 270.42(b)(6)(i)(C)(1), the Department Secretary may determine that the modification request must be processed as a Class 3 modification because there is substantial public concern about the requested modification. There is a long history of substantial public concern regarding the storage and disposal of remote handled (RH) waste at WIPP. Substantial public concern has also been demonstrated with respect to the current PMR proposing the addition of shielded containers. More than 80 people have submitted written comments for the record regarding this PMR. Many of those comments specifically addressed the proposed modification for remote handled waste."

Although the Department may have changed its position since that letter, it has not presented a reasoned explanation for doing so, and the facts stated in the December 2011 letter are still true. According to the Department, "it is the Secretary who makes the decision regarding the significance of the public interest" (CR 26), and the Secretary has never said that public concern is insubstantial. Approximately 200 individuals requested that there be a public hearing on the request. The public remains concerned and is entitled to Class 3 procedures. The New Mexico Hazardous Waste Act, § 74-4-4.2H and I, also requires a public hearing.

d. Failure to stay the decision may cause irreparable injury.

This request for a stay addresses the period up until the Court of Appeals renders its decision, which might be as long as several months or a year. Without a stay pending appeal, Permittees will be able to introduce RH waste in shielded containers without realistic limit. Once emplaced, waste cannot be extracted without great difficulty, and such becomes more true the longer the waste is in place and additional waste is emplaced in front of it. Further, during operations, it may be discovered that a shielded container's contents have shifted, so that its surface dose rate exceeds 200 mrem/hr. Such a container can no longer be managed and disposed of as CH waste, but no shipping container or method exists to return it to its source. Moreover, a shielded container may suffer a release or contamination and require remediation, even though its surface dose rate exceeds 200 mrem/hr. Again, such a container is not CH waste, cannot be overpacked in a CH container, and cannot be stored, disposed of, or shipped in any container available at WIPP. The container would remain at WIPP in continuing violation of its permit. The terse statement that "Permittees are responsible for subsequent consequences if the permit is violated" (CR 17) is no answer, if Permittees have no solution. There is a real risk that a defective

container will be stranded at WIPP. This would be an ongoing danger to the public—clearly irreparable injury.

e. A stay will not cause significant injury to Permittees.

The only injury to Permittees from a stay would be some delay in introducing RH waste in shielded containers. During the stay they would be free to introduce the same waste in currently-authorized RH canisters. Although there were general claims of an increase in efficiency with the sealed container method, no facts have been brought forth to support that claim.

f. A stay is consistent with the public interest.

There is very little risk to the public interest if a stay is granted. As stated above, Permittees can continue to operate WIPP and dispose of RH waste under a stay. The only bar would be to use of shielded containers for RH waste. The benefit to the public interest would be that no stranded containers would be created, and, hopefully, after a public hearing, any future authorization for shielded containers would be predicated upon full compliance with applicable standards, including established limits upon RH capacity and safe methods to deal with unplanned events, such as shifting waste, container releases, and contamination.

Conclusion

For the reasons set forth herein, the Department should issue its order, staying effectiveness of the November 1, 2012 determination approving the PMR for shielded containers until the Court of Appeals acts upon the pending appeal.

Respectfully submitted,

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November 16, 2012

CERTIFICATE OF SERVICE

The undersigned attorney for the appellants hereby certifies that on November 16, 2012 he served by mail a copy of the foregoing Citizen Appellants' Motion for a Stay Pending Appeal upon the following attorney of record:

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