



SOUTHWEST RESEARCH AND INFORMATION CENTER

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December 5, 2011

Tim Hall
New Mexico Environment Department
2905 Rodeo Park Drive, Building 1
Santa Fe, NM 87505

RE: WIPP Class 2 Permit Modification – Addition of a Shielded Container

Dear Tim,

Southwest Research and Information Center (SRIC) provides the following comments on the Addition of a Shielded Container Class 2 permit modification request that was submitted by the permittees on September 30, 2011, according to their public notice. SRIC is commenting separately on the other two class 2 requests regarding ventilation and groundwater monitoring.

SRIC appreciates that the permittees provided drafts of the three proposed requests and that representatives of the permittees as well as NMED met with SRIC and other citizen group representatives on August 30, 2011. SRIC continues to believe that such pre-submittal meetings are useful and supports continuing that “standard” practice in the future. SRIC also notes that there were some changes made in the modification request after the pre-submittal meeting, although several major changes suggested by SRIC at the pre-submittal meeting were not incorporated into the modification request.

1. NMED must deny the modification request

Pursuant to 20.NMAC 4.1.900 (incorporating 40 CFR §270.42(b)(7)), NMED may deny the class 2 modification request for any of three reasons. SRIC believes that denial is required because the request is deficient under each of the three criteria -- the request is not complete, the request does not meet the requirements of the Resource Conservation and Recovery Act (RCRA) and the Hazardous Waste Act (HWA), and the request does not demonstrate that the changes requested will protect human health and the environment.

A. The request is not complete. 40 CFR §270.42(b)(7)(i)

Despite the discussion at the pre-submittal meeting, the request does not include important information necessary for the public to adequately comment and for NMED to determine that the

modification would protect public health and the environment and comply with other provisions of RCRA and the HWA. For example, the modification request does not provide any limits to the amount of remote-handled (RH) waste in shielded containers that can be stored in the Parking Area Unit (PAU) or in the contact-handled (CH) Bay of the Waste Handling Building (WHB). The Permit allows no RH waste in the CH Bay Storage Area, in the CH Bay Surge Storage Area, and in the Derived Waste Storage Area. Permit Part 3.1.1.2 and Table 3.1.1.

The purpose of shielded containers request is to allow RH waste to be handled in the precisely those CH areas in which RH waste is currently prohibited. Yet the request includes no changes regarding Table 3.1.1. For example, without changes to Table 3.1.1, as was discussed at the pre-submittal meeting, the entire CH Bay Storage Area could be filled only with RH waste in shielded containers. Similarly, the request also includes no changes regarding Table 3.1.2, so the entire PAU could be filled with RH waste in shielded containers. The request does not discuss those possibilities and is incomplete.

The request does not include the amounts of RH waste that would be managed at WIPP in shielded containers, nor the amount of RH waste that would be managed at WIPP in canisters. Thus, the public and NMED cannot determine, among other things, the types and amounts of RH waste that would be managed in the CH Bay Storage Area, in the CH Bay Surge Storage Area, and in the Derived Waste Storage Area. The public and NMED cannot determine how much RH waste in shielded containers would be emplaced in the Underground Hazardous Waste Disposal Units (HWDUs) and how much RH waste in canisters would be in Panels 6, 7, and 8. Therefore, the request is incomplete.

The public and NMED cannot determine how much capacity would be available for CH waste in the Underground HWDUs if shielded containers were emplaced. The request Figure 3 shows some shielded containers being “randomly placed.” However, the request does not describe how “random emplacement” would be accomplished or how it makes the most efficient use of Underground HWDU capacity. Nor is Figure 3 proposed for inclusion in the Permit. Apparently, some CH waste emplacement space will be displaced for RH waste in shielded containers. Whether there is adequate space for remaining CH waste in the WIPP Inventory or whether the permitted capacity for CH waste should be reduced are matters that must be discussed in the request. Therefore, the request is incomplete.

An unstated major purpose of the modification request is to address the permittees’ management (or mismanagement) of WIPP over the past 13 years in such a way that there is not enough available capacity in the Underground HWDUs for some of the RH waste in the WIPP Inventory. In Panels 1-5, there are 462 RH canisters emplaced, with a volume of 411.18 cubic meters (462 x 0.89). Panels 6, 7, and 8 have a total capacity of 2,060 canisters (600+730+730), or 1,834 cubic meters, according to Table 4.1.1. Since the permittees have stated that they intend to request a permit modification for panels 9 and 10 to be the same size as panels 1-8, the presumed RH capacity of those two panels would be 1,460 canisters or 1,300 cubic meters. Thus, the total available capacity for RH waste is 3,545.18 cubic meters (411.18+1,834+1,300). That is approximately half of the RH waste legal capacity of 7,079 cubic meters and less than the amount of RH waste described in the 2011 WIPP Inventory (DOE/TRU-11-3425). That this

major purpose and the above data is not even mentioned in the request clearly shows that the request is grossly incomplete.

Page 2 of the request states:

“RH TRU mixed waste emplaced at the WIPP facility in shielded containers will remain designated as RH TRU mixed waste in the WIPP Waste Information System (**WWIS**). The emplaced volume will be counted against the RH repository limit of 7,080 cubic meters (**m³**) and RH TRU mixed waste volume limits specified in the Permit.”

Proposed revised Permit Section A1-1b(2) states that “Each 30-gallon inner container has a gross internal volume of 4.0 ft³ (0.11 m³).” Since each shipment could contain a 3-pack of shielded containers, each shipment could have 0.33 cubic meters. Each RH canister holds 0.89 cubic meters. Thus, 100 cubic meters of RH waste in canisters is handled in 113 containers and shipments, whereas 100 cubic meters of RH waste in shielded containers is handled in 304 3-packs and shipments. Therefore, use of shielded containers would substantially increase the number of packages containing RH waste being handled at WIPP, and substantially increase the number of containers arriving at the site and being stored in the PAU, WHB, and Underground HWDUs. However, those matters are not discussed in the request, and the request is inadequate and incomplete.

The request includes a new section in Attachment A1, **A1-1d(4) Handling Waste in Shielded Containers**, which states:

“If a primary waste container is not in good condition, the Permittees will overpack the container, repair/patch the container in accordance with 49 CFR §173 and §178 (e.g., 49 CFR §173.28), or return the container to the generator.”

At the pre-submittal meeting there was discussion regarding how overpacking would be done. One option mentioned was taking the shielded container to the RH Waste Bay for overpacking. In its November 18, 2011 comments on the class 2 requests, the permittees state (#5, page 2):

“A question was raised by a stakeholder regarding the overpacking of shielded containers should the container integrity be such that overpacking is necessary upon arrival at the WIPP facility. Shielded containers which require overpacking will be managed as any other CH TRU waste requiring overpacking. Overpacking of Shielded Containers is addressed in Permit Attachment A, Section A1-1d(4), Handling RH TRU Mixed Waste in Shielded Containers.”

An additional comment in the November 18, 2011 submittal, regarding Attachment A1, Section A1-1c(1), would add:

“Shielded containers are not stored in the RH Complex of the WHB. Shielded containers will be stored in the CH Bay of the WHB Unit.”

The Permit Section 3.1.1.9 also states:

The Permittees shall store RH TRU mixed waste in casks, canisters, or drums in the RH Complex as described in Permit Attachment A1, Section A1-1c(1).

The language in the additional comment and Permit Section 3.1.1.9 do not include shielded containers, thereby precluding the possibility of overpacking shielded containers in the RH Bay.

Permit Attachment A2-2(b), Page A2-12 of 46, lines 30-31 provides:

If a waste container is damaged during the Disposal Phase, it will be immediately overpacked or repaired.

Thus, the request states that overpacking could be done, but does not describe how overpacking would be done upon arrival at WIPP or if damaged in an Underground HWDU and what overpack container would be used. While Part 3 of the Permit provides that some containers may be used to overpack "CH TRU mixed waste," there is no container specifically allowed for use to overpack shielded containers with RH waste. Thus, the request includes an overpacking provision that is erroneous and cannot be accomplished. Here again, the request is incomplete and inadequate.

Thus, regarding several different essential matters, the request is incomplete and denial of the request is appropriate.

B. The request does not meet the requirements of the HWA and RCRA. 40 CFR §270.42(b)(7)(ii)

The request includes numerous changes to the Permit in how RH waste is packaged (using the shielded container), stored in the PAU, opened in the CH Bay of the WHB, examined for contamination and damaged containers, placed on the facility pallet, and emplaced underground. As already noted above, aspects of handling of shielded containers are not completely and adequately described in the request, as required by the HWA and RCRA.

20.NMAC 4.1.900 (incorporating 40 CFR §270.42(b)(1)(iii)) requires that the request explain why the modification is needed. The request fails to discuss, let alone adequately explain, that a major need is to expand the available disposal capacity for RH waste in the Underground HWDUs (see discussion on pages 2-3 above). It is clearly a violation of the HWA and RCRA to not explain the need, and the request should be denied.

Moreover, the request includes a clearly erroneous statement about the Permit. Page 2 of the request states:

"Quantities of RH TRU waste that arrives in canisters is currently counted based on the volume of inner containers."

On the contrary, as NMED pointed out in its November 9, 2011 letter to the permittees regarding the Revised November 2, 2011 Permit, each canister is counted as 0.89 cubic meters. Thus, the request is not accurate, as required by RCRA and the HWA.

As a related matter, SRIC also would object to the volume of waste in shielded containers being counted based on the volume of the inner container, rather than on the volume of the shielded container itself. Here again, the request is incomplete, because the gross internal volume of the shielded container is not specified.

As will be further discussed in #2 below, the request also does not meet the requirements for a class 2 modification request. Consequently, the request does not meet the requirements of RCRA and the HWA.

Thus, the request does not meet the requirements of RCRA and the HWA and denial of the request is appropriate.

C. The request does not demonstrate that use of shielded containers will protect public health and the environment. 40 CFR §270.42(b)(7)(iii); §74-4-4 NMSA.

The modification request does not discuss the characteristics of RH waste, including that it can have a surface dose rate of up to 1,000 Rem per hour and is highly dangerous to workers and the public. Because of the difficulties of safely permitting RH waste at WIPP, RH waste was not allowed until a Class 3 modification was approved on October 16, 2006, effective November 16, 2006.

As discussed on page 3 above, the use of shielded containers substantially increases the number of packages containing RH waste being handled at WIPP, substantially increases the number of containers arriving at the site and being stored in the PAU, WHB, and Underground HWDUs. In addition to significantly increasing the operations at the site, those increases pose dangers to public health and the environment that are not discussed in the request. The request does not demonstrate that such an increase in the number of packages with RH waste would not endanger public health and the environment. On the contrary, increasing the number of RH waste packages could endanger public health and the environment by requiring additional handling of RH waste, thereby increasing exposures and the likelihood of accidents and releases.

Further, SRIC believes that overpacking of a damaged or leaking shielded container must be required to protect workers and public health and the environment. That there is no overpack container available for shielded containers means that those containers should not be allowed at WIPP. Even a provision requiring that a damaged shielded container be returned to the generator may not be adequate because such return shipment might not be possible if the container is significantly damaged or leaking.

Because the request does not demonstrate that use of shielded containers will protect public health and the environment, denial of the request is appropriate.

2. If NMED does not deny the request, it must process the request as a class 3 permit modification under 40 CFR §270.42(c).

Pursuant to 20.NMAC 4.1.900 (incorporating 40 CFR §270.42(b)(6)(i)(C)), NMED may determine that the modification request must follow the procedures for a class 3 modification because there is substantial public concern about the proposed modification or the complex nature requires the more extensive procedures of class 3. Both requirements are met regarding shielded containers. There is substantial public interest in shielded containers, and there is very substantial public interest in WIPP and RH waste, as has been demonstrated over the past 15 years with the WIPP permitting process in which hundreds of people have participated as well as several organizations, in addition to SRIC, that represent hundreds of other people.

The complex nature of using shielded containers also has been demonstrated by the above comments regarding matters that are not completely included in the request. Handling RH waste at WIPP is demonstrably complex and was subject to class 3 modification procedures in 2005 and 2006. Shielded containers would continue the complexity of the existing RH operations and add new procedures. Thus, shielded containers would multiply the complexity of managing RH waste at WIPP.

Moreover, on October 24, 2011, NMED Secretary David Martin made a determination that the Los Alamos National Laboratory (LANL) class 2 permit modification request for TA-63 Transuranic Waste Facility would be processed as a class 3 modification because of a “long history of substantial public concern regarding the management of hazardous waste at LANL.” (Page 2). The NMED Secretary also determined that the modification “would require complex changes to the facility and its operations.” (Page 2). There is an even longer history of substantial public concern regarding the management of hazardous waste at WIPP, dating back at least 20 years. That public concern has been manifested repeatedly in the original permitting process, including the public hearing that lasted 19 days in 1999; and in public involvement in numerous permit modification requests over the past 13 years, including the request that allowed RH waste to be managed at WIPP. As already discussed, the use of shielded containers would require complex changes to many aspects of RH management at WIPP.

Moreover, other regulations require shielded containers to be a class 3 modification. 40 CFR §270.42, Appendix I.F.1.a requires that a modification “resulting in greater than 25% increase in the facility’s container storage capacity...” is a class 3 modification. Also noted above, there are no limits on the amount of RH waste that could be stored in shielded containers in the Parking Area Unit and CH Waste Bay, so the amount of RH waste allowed in those areas is certainly more than a 25% increase and the amount of RH waste in the WHB can increase by more than 25%.

40 CFR 270.42, Appendix I F.3.a requires that modifications “That require additional or different management practices than those authorized in the permit” are class 3. The purpose of shielded containers is to require additional and different management practices for RH waste than those in the Permit. Here again, shielded containers require a class 3 modification.

Thus, based on the HWA and RCRA regulations and because of current NMED practices, shielded containers must be processed as a class 3 modification, if the modification request is not denied.

3. The request includes other inadequacies.

A. The request on page 2 states:

“No waste assemblies will be placed on top of a 3-pack assembly of shielded containers because the narrower cross section of the 3-pack assembly of shielded containers may make the stack unstable.”

However, the Permit Section A2-1, Page A2-2 of 46, lines 7-8 provides:

The CH TRU mixed waste containers may be stacked up to three high across the width of the room.

Since the request includes no change in that provision and states that shielded containers would be handled as CH waste, other CH waste containers could be placed on top of a 3-pack assembly or a 3-pack assembly could be placed on top of CH TRU mixed waste containers. The request does not demonstrate that such stacking would protect workers or public health and the environment, and indeed the request states that such stacking is not appropriate. SRIC objects to allowing 3-packs of shielded containers to be stacked on top of CH TRU waste containers or to CH TRU waste containers being stacked on top of shielded containers.

B. The request proposes to revise Permit Part 4, Table 4.1.1 to remove the container equivalent column. SRIC strongly objects to such a revision. The limit on the number of RH TRU canisters was supported by public comment and technical testimony in the permit modification process that added RH waste to the Permit. In the request, the permittees have provided no adequate technical basis to remove the column and the limits.

Further, Permit Part 4, Table 4.1.1 as included in the request is not consistent with the November 2, 2011 Revised Permit and must be corrected.

4. SRIC requests a public hearing on any shielded containers modification request.

RH waste and shielded containers are a matter of significant interest to SRIC and the public. As demonstrated by these comments, the use of shielded containers would be complex, and stringent measures are required to protect public health and the environment. The complexity of the matters and the incompleteness of the request require a public hearing so that the matters may be adequately examined, and the required determinations regarding protecting public health and the environment can be adequately made. Therefore, any permit modification to allow use of shielded containers is a major modification, and SRIC requests a public hearing on the current, or any other, shielded containers permit modification request.

Concerned Citizens for Nuclear Safety joins in these comments.

Thank you very much for your careful consideration of, and your response to, these and all other comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Hancock". The signature is fluid and cursive, with a large initial "D" and "H".

Don Hancock

cc: John Kieling