



SOUTHWEST RESEARCH AND INFORMATION CENTER

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February 3, 2017

Ricardo Maestas
New Mexico Environment Department (NMED)
2905 Rodeo Park Drive, Building 1
Santa Fe, NM 87505

RE: WIPP Class 3 Permit Modification Request –
Addition of a Concrete Overpack Container Storage Unit

Dear Ricardo,

Southwest Research and Information Center (SRIC) provides the following comments on the Class 3 permit modification request package that was submitted by the permittees on September 29, 2016, according to their public notice.

SRIC appreciates that the permittees provided a draft of the proposed request and that representatives of the permittees as well as NMED met with SRIC and other citizen group representatives on September 13, 2016. SRIC continues to believe that such pre-submittal meetings are useful and supports continuing that “standard” practice in the future.

Nevertheless, SRIC remains concerned that the permittees are unwilling to discuss their overall and specific plans for WIPP, including that they cannot meet the “start clean, stay clean” Department of Energy (DOE) operating philosophy and the WIPP Permit requirements. The permittees have not provided enough information about how the facility will operate over the next three to five years before the permanent ventilation system is installed and waste might be emplaced in uncontaminated areas. The permittees have not publicly discussed the priority of this Class 3 request in relation to the other pending Class 3 request related to panel closure and perhaps other forthcoming modification requests. It remains puzzling and troubling that the permittees are unwilling to provide those plans and have those necessary conversations. It is also concerning that NMED has not insisted that such information be made publicly available and that such discussions must occur.

Regarding this modification, SRIC continues to request that the permittees withdraw it, which they still can do even after the end of the public comment period. Alternatively, SRIC believes that the request should be denied. If it is not denied, SRIC requests a public hearing. Because of the many inadequacies with the request, if it is not denied or not withdrawn, NMED must prepare a Notice of Deficiency, because there is not enough information to proceed to a draft permit.

NMED must Deny the permit modification request

Pursuant to 20 NMAC 4.1.900 (incorporating 40 CFR 270.42(c)(6) and its historic practices, NMED may deny class 3 modification requests. SRIC strongly opposes the request and believes that NMED must deny it.

1. The proposed surface storage facility is not authorized by federal law

The WIPP Land Withdrawal Act (LWA) (Public Law 102-579, as amended by Public Law 104-201) provides the legal basis for the DOE to have authority over the federal land that comprises the WIPP site and authorizes its operations. The law states:

“RESERVATION.— Such lands are reserved for the use of the Secretary [of Energy] for the construction, experimentation, operation, repair and maintenance, disposal, shutdown, monitoring, decommissioning, and other authorized activities associated with the purposes of WIPP as set forth in section 213 of the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (Pub. L. 96-164; 93 Stat. 1259, 1265), and this Act.” Section 3(a)(3).

Public Law 96-164 states:

“Notwithstanding any other provision of law, the Waste Isolation Pilot Plant is authorized as a defense activity of the Department of Energy, administered by the Assistant Secretary of Energy for Defense Programs, for the express purpose of providing a research and development facility to demonstrate the safe disposal of radioactive wastes resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission.” Section 213(a).

Those laws provide that WIPP is for “safe disposal.” The laws do not mention nor authorize the newly proposed “outdoor surface storage” facility. NMED has not been given authority by either federal or New Mexico state law to permit activities at WIPP that are not authorized by the federal laws. Thus, NMED must deny the modification request for a facility that is not authorized by law and, thus, cannot be included in the WIPP Hazardous Waste Permit.

2. The permittees have not alleged that the proposed facility is authorized by federal law.

At the September 13, 2016, pre-submittal meeting, SRIC strongly objected to the draft request and emphasized that the facility is not authorized by law. Nonetheless, the request contains no discussion of the legal basis for the facility under the LWA or any other law. The permittees clearly have no legal authority for the “outdoor surface storage” facility or they would have at least tried to provide some legal basis in the request. Again, NMED does not have the authority to permit an unlawful facility or activity at WIPP. NMED must deny the modification request.

3. The WIPP environmental impact statements do not include the outdoor surface storage facility.

DOE issued the Final WIPP Environmental Impact Statement (EIS) in October 1980 (DOE/EIS-0026). The Final Supplement EIS was issued in January 1990 (DOE/EIS-0026-FS). The Final Supplemental Disposal Phase EIS was issued in September 1997 (DOE/EIS-0026-S-2). None of those EISs included any discussion about the proposed “outdoor storage facility” nor any other such surface storage facility. There was no such discussion because DOE knew then and still knows that no such facility is authorized by federal laws. To reiterate, the proposed facility is not authorized by law, and NMED must deny the modification request.

4. NMED must deny the modification because the request does not meet regulatory requirements to demonstrate that the facility is needed.

The state and federal regulations – 20.4.1.900 NMAC (incorporating 40 CFR 270.42(c)(1)(iii)) – require that the request explain why the modification is needed. The request states:

“The new AGSC project will add the capability to store TRU mixed waste on the surface prior to disposal in the underground. This will enhance the DOE capability to manage TRU mixed waste by limiting interruptions in shipping activities when it is necessary to stop emplacement activities at the WIPP facility for maintenance or other event that delays waste emplacement.” (page 19.)

That statement does not establish or demonstrate a need. At best, it proposes a convenience. There is no assertion that there is any health and safety need for the facility, nor is there any such need. The waste that would be stored on the WIPP surface pad is being stored and can be stored in permitted facilities at the generator sites.

During the nearly 18 years that waste has been at WIPP since it first received waste on March 26, 1999, such a surface facility has not been needed, or even previously requested, by the permittees. The “events” mentioned in the request include maintenance, presumably the necessary scheduled maintenance that has been held annually for four weeks or more. Such maintenance is scheduled well in advance so that generator sites can plan accordingly. Such planned outages have never posed any known problems at any storage facility. Any other planned events can also result in stopping shipments and maintaining storage in permitted facilities at other sites.

The possibility of unplanned events stopping waste emplacement is already accommodated by the surge capabilities in the permit. Permit Section 3.1.1.3 for CH surge capacity and Permit Section 3.1.2.3 for Parking Area surge storage. In the serious unplanned event – the underground fire on February 5, 2014 – the surge capacity in the Waste Handling Building (WHB) was sufficient to handle the accumulated waste and shipments that were in transit. Surge capacity has otherwise not been used.

Clearly, the outdoor surface storage facility is not needed. Therefore, NMED must deny the request because it does comply with regulatory requirements.

5. NMED must deny the modification because the request does not meet regulatory requirements to demonstrate that it protects public health and the environment.

The state and federal regulations – 20.4.1.900 NMAC (incorporating 40 CFR 270.32(b)) – require that the permit, including any modifications, protect public health and the environment. Among the health and safety requirements of the WIPP Permit is the provision in Permit Attachment A1-1d:

“Shipments of waste from the generator sites will be stopped in any event which results in an interruption to normal waste handling operations that exceeds three days.”

This provision was not imposed by NMED. The provision was included in the permittees’ draft Permit Application, Revision 6.1, Chapter D-1a(2)(b), page D-9, from 1997. The provision always

has been included, without controversy, in the WIPP Permit. Thus, there is a strong bar to change that long-standing provision. The permittees have provided no adequate basis to justify changing the provision that they themselves have supported in the original permit issued in 1999 and in the renewal permit issued in 2010.

That provision is to help ensure that waste arrives at WIPP and is promptly emplaced underground for disposal. It helps ensure that waste does not remain on the surface, requiring monitoring and handling, and potentially exposing workers and the public to routine exposures or releases of radioactive and hazardous wastes. In the request, the permittees have not demonstrated that the existing condition is not protective of public health and the environment and should be removed. Of course, that provision is much more protective of public health and the environment than if it were eliminated, as the permittees propose. Such elimination is not protective of public health and the environment, so the request must be denied.

Other provisions of the Permit also limit the amount of time that waste containers can be stored on the surface in order to both fulfill the legal requirement for WIPP to be a disposal facility and also to protect public health and the environment from routine exposures and planned and unplanned releases of radioactive and hazardous waste.

Permit Section 3.1.1.7 is CH TRU Mixed Waste Storage Time Limit:

“The Permittees shall not store a CH TRU mixed waste container in the WHB Unit for more than 60 calendar days, with the exception of the Derived Waste Storage Area, where derived waste may be accumulated and stored until the container is full.”

Permit Section 3.1.1.10 is RH TRU Mixed Waste Storage Time Limit:

“The Permittees shall not store a RH TRU mixed waste container in the RH Complex for more than 60 calendar days, with the following exceptions:

- i. Derived Waste Storage Areas, where derived waste may be accumulated and stored until the container is full; and
- ii. Hot Cell, where 55-gallon drums may be stored for no more than 25 of the 60 calendar days.”

Permit Section 3.1.2.6 is Parking Area Storage Time Limit:

“The Permittees shall not store sealed Contact-Handled or Remote-Handled Packages in the Parking Area Unit for more than 59 days after the date the Inner Containment Vessel (ICV) of the Package was sealed at the generator site.”

Each of those provisions limit the time waste containers can be on the surface at WIPP in order to protect public health and the environment. The permit request would greatly exceed those time limits and essentially allow containers to be stored on the surface for an unlimited amount of time, potentially until facility decommissioning. There is no showing that such long-term storage is protective of public health and the environment. On the contrary, such storage would endanger public health and the environment because such long-term storage makes it more likely that the containers would be subject to planned or unplanned releases.

The request states: “The proposed action is to permit an additional hazardous waste container storage unit at the WIPP facility for storage of 65,280 cubic feet of TRU mixed waste for up to one year prior to disposal.” (page 4.)

The modification request includes proposed new provision 3.1.3.4 Storage Time Limit

“The Permittees shall not store TRU mixed waste containers in concrete overpacks for more than 365 days after the date the concrete overpack was loaded with TRU mixed waste containers.”

That proposed language does not limit the surface storage time of containers. The same containers could be stored in the WHB, then loaded into concrete overpacks for 365 days, then unloaded in the WHB for additional days, re-loaded into concrete overpacks for up to another 365 days, and be further unloaded and re-loaded. The provision clearly does not limit the amount of time that any specific container can be stored on the surface. Such unlimited storage is not only contrary to law, but it also endangers public health and the environment from additional handling when routine and accidental releases could occur and during which time there are routine exposures to workers.

Indeed, if the surface storage facility had been operational in 2014, waste containers would have continued to be shipped to WIPP and would have continued to be stored since that time and for an undetermined amount of time into the future. The one-year limit would have been meaningless. In addition to posing risks to public health and the environment in case of releases, such extended storage would have distracted worker and management attention from the recovery tasks, thereby furthering endangering public health and the environment.

Even if waste containers are not stored on the surface long term, the surface storage facility would require additional handling of containers beyond what has ever occurred at WIPP. Such additional handling increases the routine exposures to workers (which are not quantified in the request) and possible accidental releases to the public and the environment. Currently, containers arrive at the WHB in a shipping container, are unloaded in the WHB, may be stored for a limited time in the WHB, and then are emplaced in the underground. With the surface storage facility, all those handling activities would occur; but additionally, the containers would be loaded into the concrete overpack, transported to the storage pad, moved from the storage and back into the WHB and unloaded. In addition to those handlings, the overpacks could be moved an unlimited number of times on the pad and could be unloaded and re-loaded into the overpacks. All of that additional handling poses added exposures to workers and increases the risks of accidents or releases of radioactive and hazardous constituents to the public and the environment.

The outdoor surface storage facility does not protect public health and the environment. As a result, once again, the request must be denied.

6. There are other deficiencies that should be addressed in a Notice of Deficiency, if the request is not denied.

A. Shielded container storage is not needed and would add to worker exposures.

SRIC has always had documented health and safety concerns about shielded containers for remote-handled (RH) wastes, including in the comments on the modification request for shielded containers. The current request would allow the storage facility to manage shielded containers

(page 1 and other places). Shielded containers should be excluded from any outside surface storage. There are nine shielded containers of the more than 171,000 containers in the WIPP underground. Clearly, shielded containers are not a high priority for the permittees. Thus, there especially is no need that has been demonstrated to allow any shielded containers in the outside surface storage area. Any few future shipments of shielded containers could be processed in the WHB, as DOE proposed in the shielded containers modification request. Further, it is undisputed that such shielded containers can have a significantly higher surface dose rate than contact-handled (CH) containers. The request does not require any special marking of the overpacks with shielded containers, nor any special handling or radiation protection for workers that manage the overpacks. Thus, the additional, routine handling of shielded containers in overpacks will substantially increase worker exposures. There is no reason to needlessly increase routine worker exposures and increase risks to public health and the environment. Further, in case of accidents or releases, the amount of radioactivity is much higher in shielded containers than CH containers. Shielded containers should not be allowed.

B. Additional analysis is needed of the safety of concrete overpacks.

The fire and radiation release in February 2014 definitely demonstrated that the permittees did not provide adequate maintenance at WIPP. See Accident Investigation Board reports:

<http://www.wipp.energy.gov/Special/AIB%20Report.pdf>

http://www.wipp.energy.gov/Special/AIB_Final_WIPP_Rad_Release_Phase1_04_22_2014.pdf

http://www.wipp.energy.gov/Special/AIB_WIPP%20Rad_Event%20Report_Phase%20II.pdf

Regardless of the improvements that have been made during the past three years, there is no experience at WIPP of managing and maintaining concrete overpacks. The request provides no detailed information about concrete overpacks in terms of their durability and what kind of maintenance is needed if they are used and reused for years or decades. There could be additional deterioration or other problems with loading and unloading the containers multiple times, which would occur at WIPP, but apparently has not been done at the Savannah River Site. The request assumes that there would never be leaks, either of moisture getting into the container or radioactive and hazardous chemicals being released, other than the regular VOCs emissions because of the permeability of the containers. Given the recent history of WIPP accidents – fire, radiation release – and situations – large-scale-uncontained contamination and three-year shutdown – that supposedly “could not happen”, there must be an analysis beyond that presented in the request of when overpacks allow water to enter the containers or when radioactive or hazardous releases occur. The overpacks sitting in the open air with no protection would also be more visible and susceptible to terrorist attacks than if they are out of sight in the WHB. There must be an analysis of the impacts of terrorist attacks, including use of RPGs or other projectiles on the overpacks, and the effects on public health and the environment if such incidents occurred.

C. The size of the surface storage facility is grossly over-estimated and unjustified.

According to the request, the outside surface storage facility “provides capacity to store up to eight weeks of shipments at 17 shipments per week of three TRUPACT-II containers per shipment.” (page 5.) There is absolutely no basis to project that there could be 17 shipments per week, and the request provides none. On the contrary, for the years 2018, 2019 and 2020, the maximum number of shipments projected in a year is 165 in 2019. (See Exhibit 1 – full document available at http://sric.org/nuclear/docs/SA_2016_Data_Call_17-1802_Enclosure.pdf.)

DOE has not released those estimates or any others on its website or otherwise, but SRIC received them under the Freedom of Information Act for the Data Call reference to DOE's *Supplement Analysis for the Waste Isolation Pilot Plant Site-Wide Operations* (DOE/EIS-0026-SA-10). http://www.wipp.energy.gov/Special/Supplemental_Analysis.pdf. Since DOE has no plans to have 17 shipments per week for the foreseeable future – until after 2022, there is no basis – and again no need – for such a large facility.

In summary, the request must be denied because the outdoor surface storage facility is not authorized by law and because it does not meet the regulatory requirements to demonstrate the need and to protect public health and the environment.

If the request is not denied, SRIC and many other people request a public hearing. NMED must issue a Notice of Deficiency to require the permittees to provide much more information, including issues raised in these comments, before it could proceed to a draft permit.

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 written in a cursive style with a large initial "D".

Don Hancock

cc: John Kieling

RESPONSES TO NEPA REVIEW REQUESTS

MOC transportation plan and procedures and the following safety analysis reports (SARs), and Certificate of Compliance (C of C).

Notification of shipments is managed in cooperation and agreement with state organizations (e.g., Western Governors' Association). The DOE has agreed to provide written notification of the first five shipments in a corridor 14 days in advance. Further, the DOE will provide the states with an annual notification, including six-month updates, of the shipments planned for the coming year. The states receive the eight-week rolling schedule on a weekly basis. The eight-week rolling schedule provides the detail of the annual plan. State officials designated for receipt of information (or their designees) are provided access to the DOE Transportation Tracking and Communication System (TRANSCOM).

Questions:

TR-1 Provide annual estimates (in terms of truck shipments or packages) for transportation of TRU waste to WIPP (for 2017-2022) compared to operations prior to February 2014.

Annual rate prior to 2014: 815 per year

Projected annual rate for 2017: shipments 102

Projected annual rate for 2018: shipments 34

Projected annual rate for 2019: shipments 165

Projected annual rate for 2020: shipments 98

Projected annual rate for 2021: shipments 249

Projected annual rate for 2022: shipments 420

TR-2 Have there been any notable changes in the transportation packages (e.g., TRUPACT-II or RH-72B) that would have a bearing on health and safety impacts (e.g. source terms, external dose rates)? Is there any reason to expect a change to consequences associated with transportation accidents?

The Nuclear Regulatory Commission reissuance of the Certificates of Compliance for Type B packages confirms that the packaging continues to meet the applicable requirements of 10 CFR § 71.51.

TRUPACT-II license reissued: June 12, 2014

HalfPACT license reissued: November 4, 2015

TRUPACT-III license reissued: July 21, 2015

RH 72B license reissued: June 17, 2011 (Indefinite Delay)

10-160B license reissued: None

TR-3 Are there any notable changes to the waste generator sites or routing to WIPP that would have a bearing on impacts?

The only change regarding transportation from generator sites has to do with the transportation of waste to Waste Control Specialists in Andrews, Texas, and then to the WIPP facility for disposal. This was covered in a Supplement Analysis in March 2014. The SA reached the following conclusion: