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*November 18, 2016*



✓ Ricardo Maestas  
Hazardous Waste Bureau  
New Mexico Environment Department  
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Santa Fe, New Mexico 87505-6303

RECEIVED

Cc: Mr. John E. Kieling, Bureau Chief  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303

NMED  
Hazardous Waste Bureau

Subject: Class 3 Permit Modification Request for the Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Number NM4890139088-TSDF

Gentlemen:

I am a resident of New Mexico.

Based upon the information submitted by the Permittees, the New Mexico Environment Department is obligated to reject the subject Permit Modification Request.

Following are comments on the Request. Because of the lack of sufficient time to thoroughly and completely analyze the Request (which probably took Permittees hundreds, if not thousands, of person-hours to prepare), there probably are a plethora of additional reasons why the Request should be rejected.



Sincerely,

A handwritten signature in black ink, appearing to read "George Anastas", with a long horizontal flourish extending to the right.

George Anastas

Comments Class 3 Permit Modification Request  
Addition of a Concrete Overpack Container Storage Unit  
Waste Isolation Pilot Plant  
Carlsbad, New Mexico  
WIPP Permit Number - NM4890139088-TSDF  
September 2016  
George Anastas, PE, CHP, BCEE, FHPS, FARPS

**Item 1: Page 1:** The Request states: (This Modification)  
“Provides the Permittees the ability to store CH TRU mixed waste  
(65,280 cubic feet) in a permitted hazardous waste container  
storage unit for up to one-year.”

Item 1 Response: DOE/WIPP has a long and abundantly clear history of NOT meeting schedule (or cost), renegeing on agreements and violating federal law. Recall that construction of WIPP commenced on July 4, 1981 and the first TRU waste was received at WIPP on March 26, 1999-more than 15 years later. It is not unreasonable to postulate that the WIPP will NOT reopen in the near future. The Request does not include a contingency plan for the likelihood of another long WIPP outage. WIPP has extensive above ground storage space, particularly since it may be years before WIPP can place waste underground. This Request is no more than an attempt to get TRU, spent reactor fuel and reprocessing waste away from the Generating Sites and place these materials on the surface in New Mexico.

Accordingly, the Request must be denied.

**Item 2: Page 1:** The Request states: “This additional CH TRU mixed waste storage capacity includes remote-handled (RH) waste in shielded containers that is managed and stored as CH waste pursuant to Permit Part 3, Section 3.3.1.8.”

Item 2 Response: In 1979, Congress authorized WIPP as a "research and development facility to demonstrate the safe disposal of radioactive waste resulting from defense activities and programs of the United States." The term “atomic energy defense activity” means any activity of the Secretary (of Energy, GA) performed in whole or in part in carrying out any of the following functions:

- (A) naval reactors development;
- (B) weapons activities including defense inertial confinement fusion;
- (C) verification and control technology;
- (D) defense nuclear materials production;
- (E) defense nuclear waste and materials by-products management;
- (F) defense nuclear materials security and safeguards and security investigations; and
- (G) defense research and development.

On July 1, 1981, DOE agreed with the State of New Mexico to limit WIPP to the disposal of defense transuranic waste.

RH waste in shielded containers is precisely how DOE disposed of commercial and research spent nuclear fuel and high level waste from nuclear fuel reprocessing operations originating from Argonne National Laboratory even though the WIPP Land Withdrawal Act unambiguously prohibits the transport and disposal of these materials at WIPP. Moreover, all DOE has to do is mix spent nuclear fuel and/or high level waste from reprocessing with TRU, package the material, ship to WIPP and place the

containers aboveground, all in violation of Federal Law, promises made to New Mexico, Agreements between New Mexico and DOE and promises made to the United States.

Federal Law trumps internal (and self-serving) agency opinions and guidance that circumvents Federal Law. Moreover, DOE has violated the July 1, 1981 Agreement for Consultation and Cooperation on WIPP by the State of New Mexico and U.S. Department of Energy.

Accordingly, the Request must be denied.

**Item 3: Page 4:** The Request states: “This storage capability represents a significant waste processing efficiency.”

This statement is NOT correct. The approach outlined in the Request ADDS different and additional steps to the “processing” of waste at the facility. As an organization adds different and additional steps, the likelihood of a mishap increases. The Request states at pages 10 and 11:

“The TRU mixed waste storage process begins with the WIPP Operations TRU mixed waste handling personnel transporting an empty concrete overpack into the WHB using a forklift and positioning it in front of the TRUDOCK. Next, the personnel will remove the empty concrete overpack lid and set it aside on the designated stand. TRU mixed waste containers will be removed from the CH packaging on the TRUDOCK. As the waste is removed from the CH packaging, the payload containers will be inspected. Once the waste is lowered into the empty concrete overpack using the Adjustable Center of Gravity Lift Fixture, the annual inspection and storage period will begin. The lid will then be placed back on the concrete overpack. This provides the secondary containment for the TRU mixed waste. Using a forklift, TRU mixed waste handling personnel will then transport the

loaded concrete overpack containing the TRU mixed waste outside of the airlocks. An all-terrain forklift will then transport the loaded concrete overpack onto the Overpack Unit.

When it is time to emplace the TRU mixed waste into the WIPP underground, TRU mixed waste handling personnel will retrieve the loaded concrete overpack containing the TRU mixed waste from the Overpack Unit and move it using the all-terrain forklift outside the WHB. The concrete overpack will then be carried into the WHB using an electric forklift and placed in the TRUDOCK. The concrete overpack lid will be removed and radiological surveys are performed as required. The TRU mixed waste will be removed from the concrete overpack, inspected for spills or leaks, and, if found to be in good condition, placed on a facility pallet and readied for emplacement in the WIPP underground. The empty concrete overpack will then be ready to receive other TRU mixed waste for storage or be moved out of the WHB and staged for future use.”

Moreover, these containers will have been loaded into the concrete overpack up to one or more years before they are unloaded from the concrete containers. The concrete overpack (and the containers inside the overpack) will be subject to significant variations in temperature (summer temperature in Carlsbad can reach over 100 degrees F with nearly 7 kWh/square meter/day solar insolation).References:

<https://weatherspark.com/averages/29937/Carlsbad-New-Mexico-United-States> and <http://www.gaisma.com/en/location/carlsbad-new-mexico.html>

Item 3 Response: What industrial and radiation safety features will be incorporated into the procedures relating to removing the lid of one of the concrete overpacks? If another drum detonates or is breached inside the concrete overpack, particulate radioactive materials would be released as the concrete lid is lifted. Is the vent

hood located in the TRUPACT-II Unloading Dock (**TRUDOCK**) capable of collecting these particulate radioactive materials? What is the maximum, minimum and average air flow of this vent hood at the height of the top of the concrete Overpack? What kind of filtration does the vent hood contain? What is the procedure if the vent hood is inoperable? WIPP and New Mexico really do not want to have yet another release of radioactivity. New Mexico has had enough from a facility that was to start clean and remain clean. There is no Benefit/Cost analysis presented in the Request and one should be requested.

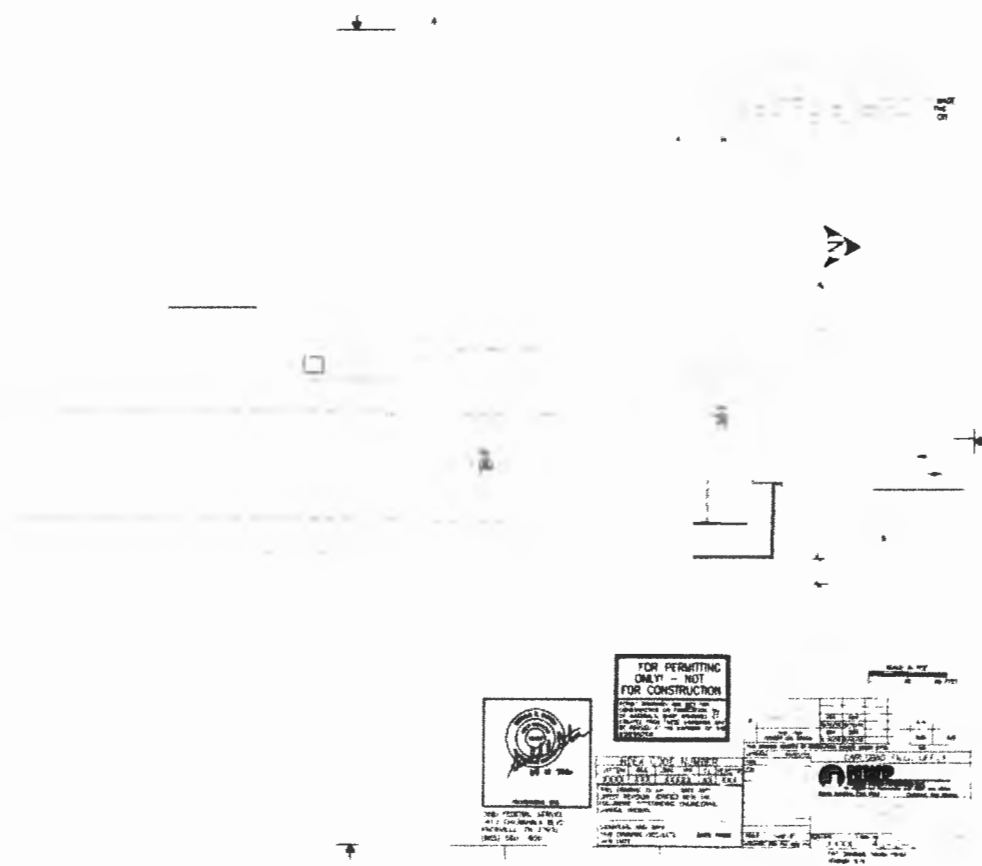
Item 4: Page 5: The Request states: “The concrete overpacks are procured to the applicable American Concrete Institute standard for reinforced concrete.” And on Page 15 the Request states: “The concrete overpacks are procured to the applicable American Society for Testing and Materials (**ASTM**) standards for pre-cast reinforced concrete manhole sections (ASTM C478-93), and reinforced concrete wall (ASTM C76-89).”

Item 4 Response: Are these Standards applicable to the use of these Overpacks for TRU waste, spent nuclear fuel, reprocessing waste and the contents of LANL Drum 68660? If yes, what is the basis of that assertion? What are the steps DOE will take to assure that the concrete containers are in fact fabricated to the “applicable American Concrete Institute standards”?

Item 5: No page: Since the addition of the Overpack Unit (and the “storage of up to one year of the waste) is a significant departure of WIPP planned operations, does the addition of the Overpack Unit require a NEPA Review? The Overpack unit is a material new and quite large structure on the site and expands the site boundary. The Overpack Unit will significantly increase the quantity of hazardous materials stored above ground (for up to a year) and also increase the quantity of radioactive material stored above ground.

Item 5 Response: Provide the basis that the Overpack Unit is exempt from a NEPA Review. An Opinion by a DOE employee or one of its contractors and/or an internal DOE Guidance would patently be self-serving and invalid. If the Request is approved, then what would be the **TOTAL** maximum quantity of radioactive material (including spent nuclear fuel and high level reprocessing waste) stored above ground?

Item 6 Page 6: The Request states “A fire water line shall be provided to feed approximately 500 gallons per minute of water to a fire hydrant.” On Drawing 45-Z-032-W3 the apparent location of the hydrant is at the northeast side of the slab.

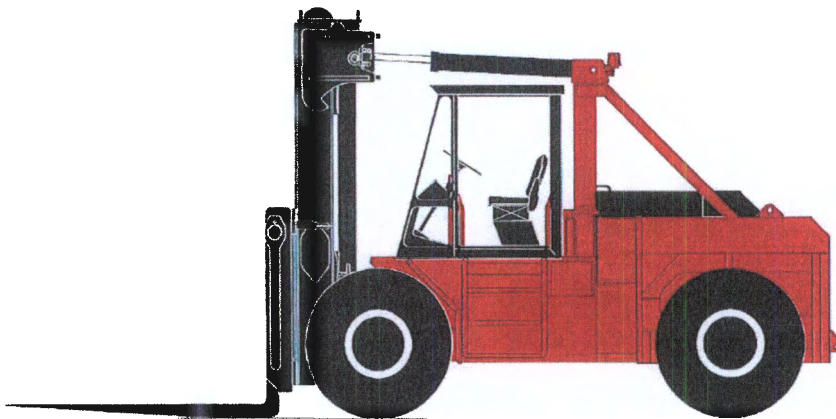


Item 6 Response: At what pressure will the 500 gpm be provided at the hydrant? What is the distance from the planned fire hydrant

to the furthest edge of the Overpack Unit? What is the nominal length of fire hose available?

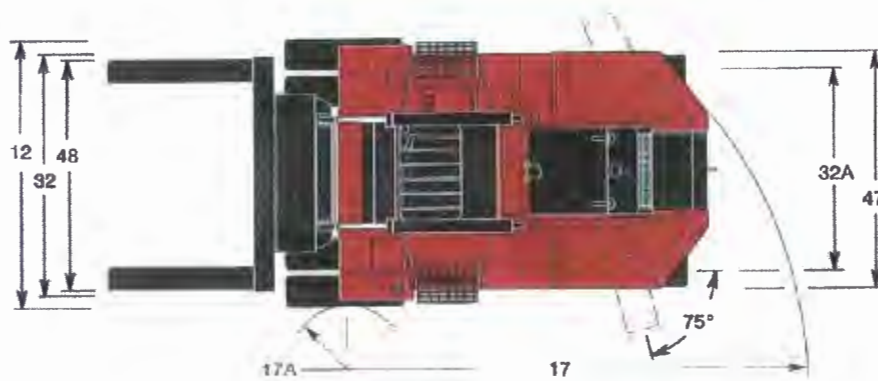
Item 7 Page 7: The Request states: “The Overpack Unit will be configured to provide safe driving paths for forklifts handling concrete overpacks.” And states on page D-4: “Aisles providing area access and egress paths shall be 48 inches minimum.” And states on page 9 ” Access space will be provided between stored concrete overpacks to allow access for personnel performing inspections and by Fire Department personnel as needed.

Item 7 Response: The Big Red T-450S/T520S Taylor Industrial Trucks Standard Specifications



cut sheet (Attachment A to the Request) indicates the width of the proposed industrial truck (forklift) is 120 inches and the minimum outside turning radius is 198 inches.





Aisles providing area access and egress paths of 48 inches minimum might make it difficult to move forklift along the aisles. What is the minimum width of the egress path required by Fire Department Personnel?

Item 8 Page 14 and 15: The Request states numerous times: “DOE/WIPP-02-3122, Transuranic Waste Acceptance Criteria for The Waste Isolation Pilot Plant, does not allow ignitable or reactive waste to be shipped to the WIPP facility.

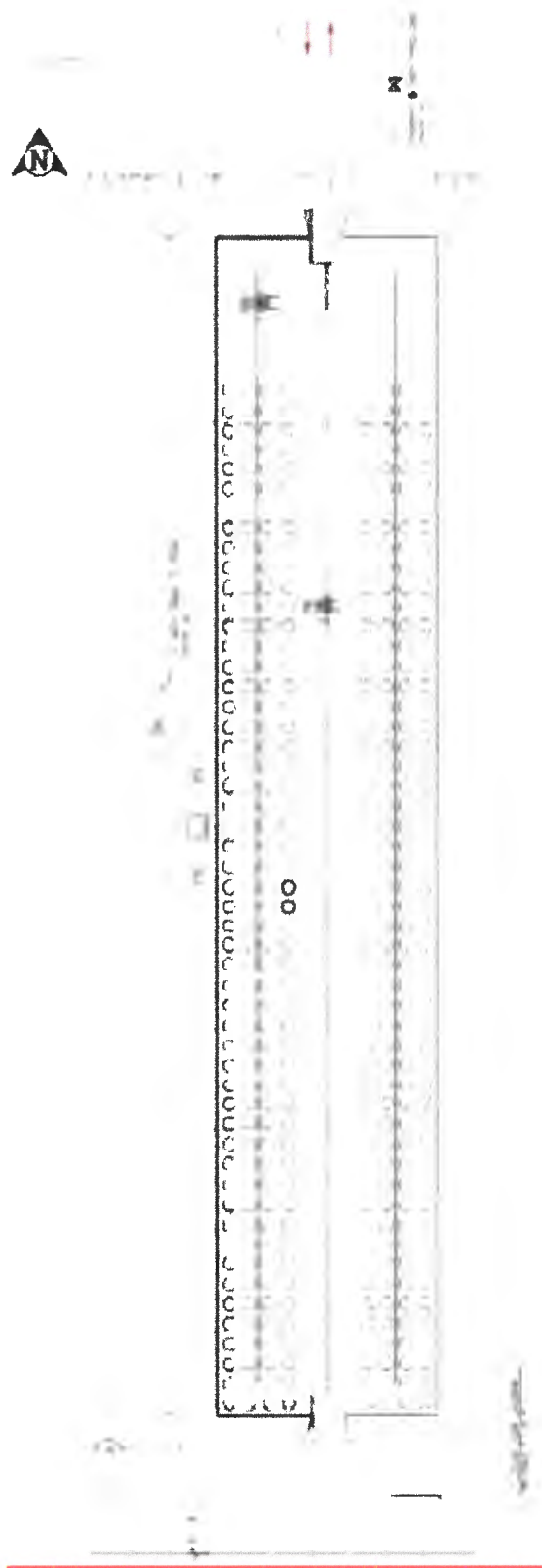
Item 8 Response: If that is the case, then why did LANL Drum 68660 detonate?

Item 9 Page 19: 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.

Response Item 9: The WIPP has more than enough storage space to handle any interruptions in shipping activities, maintenance or other events that delays emplacement (with the exception perhaps of another drum detonation, roof fall or fire, for example). WIPP

has to first clean out the excess waste already stored at the Waste Handling Building. Leave the waste at the Generating Site until such time as the WIPP is reopened.

Item 10 Page B-18 Figure A1-38: The Request shows the extent of the number of Overpacks.



**Figure A1-38**  
**Concrete Overpack Container Storage Unit**

Response Item 10: Patently the DOE/WIPP wants to use the WIPP as a storage area for Generating Sites. This was never the mission of the WIPP. Approximately 400 (!!!) Overpacks can be “stored” on the concrete pad. Leave the waste at the Generating Sites until such time as the WIPP is reopened. There is no need for this Permit Modification.