

February 1, 2021

Department of Energy/NNSA

**Citizen Action New Mexico's EIS Scoping Comments for
Plutonium Downblending Dilution and Disposal at WIPP**

Sent to: SPDP-EIS@nnsa.doe.gov

Citizen Action New Mexico is a 501(c)(3) project of the New Mexico Community Foundation. These comments are submitted in opposition to the Department of Energy/National Nuclear Security Administration plans to “dilute and dispose” and bring up to 42 metric tons of downblended Plutonium waste to the Waste Isolation Pilot Plant (WIPP) in southern New Mexico.

1. The meetings for scoping comments were difficult to access. While Citizen Action made some comments on the January 25 and 26, CANM was unable to access the meeting by computer. The factor of being unable to adequately access the meeting was also the subject of other individual and organizational comments. Physical meetings should be made available for scoping comments, but NNSA chooses to use the exigency of the Covid pandemic to avoid interaction with the public. Transcripts of the comments of participants were unavailable for public consideration given the back to back limited meetings and the demand for comments to be provided a few days later. CANM requests extension of the scoping comment period.
2. CANM objects to the disposition of downblended Plutonium waste on the basis that there is no Programmatic Environmental Impact Statement (PEIS) that examines the entirety of all waste and environmental consequences for the total number of facilities and processes involved.
3. CANM objects to the DOE/NNSA continuing plans for pit production that will generate more plutonium waste that is also proposed for disposal at WIPP before any EIS has even been produced or approved.
4. CANM objects on the basis that DOE/NNSA are undertaking a piecemeal segmented approach to the utilization of WIPP without identifying all modifications, both physical and regulatory that would be required to dispose of 42MT at WIPP.
5. CANM objects that WIPP is only a “pilot” operation, and was not conceived, represented or approved as a repository for expansion to dispose of all the U.S. military produced plutonium along with hazardous waste.
6. WIPP may not be suitable for expanded disposal of downblended Plutonium for technical and regulatory reasons including prior accidents and that the waste planned for disposal at WIPP that is identified in DOE's 2016 inventory report exceeds the facility's disposal space. Even if the method were changed for counting the amount of waste in storage, unidentified future waste and that proposed for disposition, WIPP

would not provide adequate disposal space. The GAO document GAO-17-390 *Proposed Dilute and Dispose Approach Highlights Need for More Work at the Waste Isolation Pilot Plant* (September 2017) <https://www.gao.gov/assets/690/686928.pdf> states:

- DOE does not have reasonable assurance that it will be able to expand the repository in a timely manner.
- The 2016 inventory report includes 68,350 m³ of contact-handled waste and 3,160 m³ of remote-handled waste planned for disposal at WIPP.⁶⁰ These inventory totals do not include the 34 MT of diluted plutonium from the dilute and dispose approach. The inventory also has a separate section for “potential waste,” which is waste that may be disposed of at WIPP but that, because of issues such as regulatory or physical restrictions, DOE has not yet determined meets all of WIPP’s waste acceptance criteria. (p. 32).
- DOE will be unable to dispose of all of the TRU waste planned for disposal identified in its inventory, in part because of problems with the remaining disposal space at WIPP. According to a recent DOE document, portions of the remaining disposal space outlined in WIPP’s original 10- panel design are no longer suitable for waste disposal due to the accidents that took place at WIPP in February 2014. (p.32)
- Additionally, according to DOE officials, they were unable to conduct sufficient maintenance of the entire WIPP underground while working to recover from the 2014 accidents, and as a result, additional portions of the facility’s space are no longer suitable for waste disposal. In particular, these officials told us that they are not likely to dispose of waste in panel 9 due to the instability in the ceiling in that area.
- To address the disposal space shortfall identified by our analysis, we estimate that DOE will need to further excavate the repository to develop two or more additional panels. (p. 36).
- Additionally, any new shielded containers for remote-handled waste would need to be approved for use by EPA and the New Mexico Environment Department. [Approval has not been granted by NMED].
- ... [U]nder DOE’s current method for counting waste volume, the facility could exceed its statutory disposal capacity. ... Other Estimated Waste That May Go to WIPP: Two other sources of waste could significantly impact the available capacity at WIPP. For the first source—GTCC LLW and GTCC-like waste—DOE issued a final environmental impact statement in 2016 that identified 12,000 m³ of waste for which there is no current disposal capability. The environmental impact statement identifies WIPP and/or commercial disposal sites as the preferred alternatives for disposal of this waste; however, this waste was not generated from defense activities and therefore, according to the environmental

impact statement, legislation would be required to allow for disposal of this waste at WIPP. In addition, DOE is required under the Energy Policy Act of 2005 to submit a report to Congress on disposal alternatives under consideration for GTCC LLW waste and await action by Congress before making a final decision on which disposal alternative to implement.⁶⁸ As of May 2017, DOE has not submitted the report to Congress. For the second source, DOE estimates that the diluted plutonium from the dilute and dispose approach would generate 23,800 m³ of waste. In its current planning documents, NNSA assumes that WIPP will be the geologic repository for this waste if the decision is made to move forward with this approach for the Plutonium Disposition Program. As seen in table 6, if DOE were to dispose of all potential waste and GTCC LLW and GTCC-like waste at WIPP, it could exceed the statutory capacity established in the Land Withdrawal Act even without the 34 MT of diluted plutonium. (Emphases supplied).(Pp. 39-40).

- [P]otentially significant volumes of waste resulting from decontamination and decommissioning of facilities and exhumation of buried waste that have not yet been estimated increase the potential for WIPP to exceed its statutory disposal capacity in the future. (Pp. 41-42).
7. DOE/NNSA must provide the amount and types of waste and the location(s) where disposal will be located for radioactive wastes from decontamination and decommissioning from all processes and facilities used in the dilution downblending.
 8. DOE/NNSA must provide the 1) amount and 2) characterization of all Resource Conservation and Recovery Act (RCRA) hazardous wastes that will be generated as a result of the processes used in the downblending process 3) as well as the proposed disposal locations and 4) their availability.
 9. DOE/NNSA must provide the nature of the adulterant(s) used in the downblending process.
 10. DOE/NNSA must provide the time for which stability of the downblended product is expected 1) without any emplacement and 2) after emplacement in a repository.
 11. DOE/NNSA must provide analyses regarding the time span and conditions giving any potential for criticality events from disposal of the Plutonium at WIPP. Potential for environmental releases must be examined for accidents from handling and human error at WIPP and all other facilities involved in the downblending operations.
 12. DOE/NNSA must provide comparative experiential analyses, i.e. data based, of all facilities proposed for downblending discussing the potential for environmental releases for accidents from handling, human error and transportation. Provide, e.g., the incidences of glove box accidents, history of employee contamination from plutonium and environmental releases.
 13. Provide all regulatory standards and future legislative approvals that must be met to allow the disposal of downblended plutonium at WIPP.

14. Provide any ongoing plans or proposed plans that identify a search for a repository other than WIPP.
15. Provide the identification of any potential disposal sites other than WIPP that have been historically considered and/or are under present consideration as a repository.
16. Identify the toxicity of plutonium for human exposure and the longevity of such toxicity.
17. DOE/NNSA must provide comparative risk assessments for all facility aspects of downblending, transportation routes and repository locations whether in existence or under consideration.
18. Provide the total number of transportation trips into and out of New Mexico that will be required if the Holtec facility for the interim storage of nuclear reactor waste AND the WIPP repository are used for disposal of downblended plutonium.
19. Provide any plans whether publically released or not that contemplate use of WIPP in an expanded form for permanent disposition of interim wastes that would be stored at the Holtec, Inc. facility.
20. Provide all previous representations made by AEC/DOE/NNSA to the State of New Mexico, its representatives, elected officials, and at meetings with the public regarding
 - a. Agreed limits on types and amounts of waste at WIPP.
 - b. Provide the representations made regarding the time for closure of the WIPP facility and the end time for placement of radioactive and hazardous RCRA waste in WIPP.
 - c. Provide any oral or written representations that there would be other repositories for commercial and defense HLW.
 - d. Provide any oral or written representation or agreement that WIPP would be available for waste in excess of 6.2 million cubic feet (175,564 cubic meters).
 - e. Explain if the proposed shaft modification approval would provide the additional storage space necessary for up to 42 MT of downblended Plutonium waste. If the answer is the modification would not be adequate, provide all additional modifications that would be necessary and the legal requirements for approval and the time necessary for installation.
 - f. For all such above representations, identify whether such representation was made orally or in writing and the date, time and location and DOE/NNSA and NMED officials providing the representation and approval.
21. In the event of an accident involving criticality or the operational handling of additional downblended plutonium, describe the provisions for shutdown, worker protection and decontamination of the WIPP facility and surrounding human environment if release is offsite.
22. Provide the maximum credible accidents for all facilities that will be engaged in the plutonium downblending, transportation, handling and disposition.
23. The proposed EIS should identify health and environmental consequences for the minority population of New Mexico.

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