

June 24, 2024

Ms. Lee Ann B. Veal, Director
Radiation Protection Division
Office of Radiation and Indoor Air
Environmental Protection Agency
William Jefferson Clinton Building, West
1301 Constitution Ave. NW, Mail Code 6608T
Washington, D.C. 20004

via email: Veal.Lee@epa.gov

Dear Ms. Veal:

The following legal Memorandum is provided on behalf of numerous New Mexico organizations, including Albuquerque Center for Peace and Justice; Citizens for Alternatives to Radioactive Dumping; Concerned Citizens for Nuclear Safety; Conservation Voters New Mexico; Demand Nuclear Abolition; Multicultural Alliance for a Safe Environment; Nuclear Watch New Mexico; Southwest Alliance for a Safe Future; Southwest Research and Information Center; Stop the War Machine; The 285 Alliance, Steering Committee; and Veterans for Peace, Chapters #63 and Joan Duffy.

As described in the Memorandum, the legal requirements of the U.S. Environmental Protection Agency (“EPA”) regulations provide that EPA must publish a notice of proposed rulemaking and accept comments on those proposed changes regarding the U.S. Department of Energy (“DOE”) Planned Change Request for Panels 11 and 12.

The organizations request that EPA issue such a rulemaking notice by the time of the meetings in New Mexico in August 2024 so that those meetings will be part of the rulemaking process.

Sincerely,

Jeanne Pahls
Albuquerque Center for Peace and Justice

Deborah Reade
Citizens for Alternatives to Radioactive Dumping

Joni Arends
Concerned Citizens for Nuclear Safety

Douglas Meiklejohn
Conservation Voters New Mexico

Eileen O'Shaughnessy
Demand Nuclear Abolition

Susan Gordon
Multicultural Alliance for a Safe Environment

Scott Kovac
Nuclear Watch New Mexico

Patricia Cardona and Rose Gardner
Southwest Alliance for a Safe Future

Don Hancock
Southwest Research and Information Center

Bob Anderson
Stop the War Marchine

Cynthia Weehler
The 285 Alliance, Steering Committee

John Wilks
Veterans for Peace, Chapter #63 (Albuquerque)

Greg Corning
Veterans for Peace, Joan Duffy Chapter (Santa Fe)

Memorandum

Introduction

The U.S. Department of Energy (“DOE”) is requesting to use Panels 11 and 12 to replace the underutilized disposal capacity associated with existing Panels. The proposed use of Panels 11 and 12 does not involve any changes to the WIPP Land Withdrawal Act passed by Congress in 1992.

In accordance with the regulations promulgated by the U.S. Environmental Protection Agency (“EPA”), the issue is whether the EPA can address this request administratively or whether the EPA’s evaluation of this request must be made by means of a rulemaking proceeding. For the reasons outlined below, the EPA must evaluate this request by means of a rulemaking proceeding.

Argument

- I. Proposed changes in activities or conditions for disposal of waste in WIPP are governed by U.S. Environmental Protection Agency regulations.

The procedures that must be followed to evaluate proposed changes in activities or conditions pertaining to disposal of waste in WIPP are governed by regulations promulgated by the U.S. Environmental Protection Agency (“EPA”) and codified at 40 Code of Federal Regulations (“CFR”) section 194.65. It provides:

Section 194.65 Notice of proposed rulemaking for modification or revocation.

- (a) If the [EPA] Administrator determines that any changes in activities or conditions pertaining to the disposal system [at WIPP] depart significantly from the most recent compliance application, the Agency [EPA] will publish a notice of Proposed Rulemaking in the FEDERAL REGISTER announcing the Administrator’s proposed decision on modification or revocation and soliciting comment on the proposal.
- (b) Any comments received on the notice will be made available for inspection in the dockets established pursuant to [CFR] section 194.67.

The changes proposed by DOE for disposal of waste in WIPP do “depart significantly from the most recent compliance application”, and the EPA therefore

must publish a notice of proposed rulemaking and accept comments on those proposed changes.

II. The EPA must conduct a rulemaking proceeding to consider the DOE's proposed changes for disposal of waste in WIPP.

A. The DOE has indicated that its proposed changes should be considered in a rulemaking proceeding.

The initial indications that the EPA must conduct a rulemaking proceeding to consider the DOE's proposed changes are in the DOE's Planned Change Request for the Use of Replacement Panels 11 and 12 in WIPP ("the Planned Change Request"). First, the cover letter with which Mark Bollinger, the Carlsbad Field Office Manager, transmitted the Planned Change Request to Lee Ann B. Veal, the Director of the EPA Radiation Protection Division ("Bollinger Transmittal letter"), indicates that the Planned Change Request was submitted pursuant to 40 CFR section 194.4(b)(3). It provides:

Any time after the [EPA] Administrator issues a certification, the Department [of Energy] shall report any planned or unplanned changes in *activities or conditions pertaining to the disposal system that differ significantly from the most recent compliance application.*

40 CFR section 194.4(b)(3), emphasis added.

Moreover, the language of the Planned Change Request also indicates that it was submitted pursuant to 40 CFR section 194.4(b)(3). The Planned Change Request states:

Under 40 CFR 194.4(b)(3) (U.S. EPA 1996), the DOE must give the U.S. Environmental Protection Agency (EPA) prior notice of "any planned ... changes in activities or conditions pertaining to the disposal system that differ significantly from the most recent compliance application." This notification must be made in writing per 40 CFR 194.4(b)(3)(i). *In accordance with these criteria*, the DOE requests the EPA approve the use of replacement Panels 11 and 12 based on the following discussions.

Planned Change Request, page 5, paragraph 2.

Thus the DOE's own language indicates that the Planned Change Request proposes changes in activities or conditions that differ significantly from the most recent compliance application. Moreover, this is confirmed by a review of the Planned Change Request.

B. The Planned Change Request proposes changes in activities and conditions that differ significantly from the DOE's most recent compliance application.

1. The DOE's most recent Compliance Recertification Application for WIPP makes no mention of proposed Panels 11 and 12 or other new Panels that are the subject of the Planned Change Request.

DOE submitted its most recent Compliance Recertification Application to the EPA on March 26, 2019. That Compliance Recertification Application ("2019 CRA") explains that Panels 1 through 7 have been mined completely and that Panels 1, 2, 3, 4, 5, and 6 are filled with waste. The 2019 CRA also points out that some waste has been emplaced in Panel 7, and that Panel 8 has been partially mined. *See* 2019 CRA, page 15-5, section 15.3.4.1. At no point, however, does the 2019 CRA discuss or even mention the need for additional Panels 11 and 12 or Panels 13 through 19. Those Panels are also not featured in the figure depicting the status of mining and waste emplacement. *See* 2019 CRA, figure 15-1.

2. The Planned Change Request calls for utilization of entirely new Panels in the WIPP facility.
 - a. The Planned Change Request proposes the use of two new disposal Panels.

The most notable change in activities and conditions proposed by the Planned Change Request is the proposal to utilize two new Panels – Panels 11 and 12 – to replace existing Panels 1 and 7 and the underutilization of existing Panel 9. The need for Panels 11 and 12 to replace the lost space in Panels 1, 7, and 9 is explained in the Planned Change Request as being necessary to allow WIPP to continue its mission of disposing of defense related TRU waste and to ensure continued and uninterrupted waste disposal operations upon completion of waste disposal in existing Panel 8. *See* Planned Change Request, page 7, paragraph 4, and Planned Change Request, page 8, paragraph 1.

Regardless of the need for Panels 11 and 12, mining and utilization of them constitutes a significant difference from the configuration of the WIPP facility in the 2019 CRA. The significance of the difference between the 2019 CRA configuration of WIPP and the Planned Change Request's proposed configuration of the WIPP facility is demonstrated by the Planned Change Request's figure 1 (set forth on Planned Change Request page 6). It shows the proposed development of an entirely new area of the WIPP facility to the west of the existing Panels 1 through 8. That proposed change by itself constitutes a significant difference between the 2019 CRA and the Planned Change Request. Moreover, that is not the only significant difference between the Planned Change Request and the 2019 CRA.

b. The Proposed Change Request addresses additional Panels 13 through 19.

The Planned Change Request goes beyond the proposal to mine and utilize new Panels 11 and 12. The Planned Change Request states:

Therefore, to meet the intent of 40 CFR 194.24(g), provide a reasonable expectation of compliance with 40 CFR 191.13, and address the EPA's expectations of an analysis, the RPPCR PA [the Planned Change Request] includes additional Panels 13 through 19 beyond the replacement Panels 11 and 12.

Planned Change Request, page 9, paragraph 3.

3. The Planned Change Request also differs from the 2019 CRA in numerous other ways.

On page 12 of the Planned Change Request, it lists 16 different ways in which the Planned Change Request differs from the 2019 CRA. That number of differences alone indicates that the Planned Change Request differs significantly from the 2019 CRA. Moreover, several of the differences listed on page 12 are significant by themselves. For example, the first difference listed by the Planned Change Request is:

Made changes to the following Conceptual Models: Disposal System Geometry, Repository Fluid Flow, and Direct Brine Release.

As another example, the second difference listed is:

Modified the Salado flow grid to represent additional excavated areas, including new waste disposal panels (i.e., the expected 19-panel future repository design).

A third example is the last change listed:

Recalibrated the transmissivity fields in the Culebra with additional data and updated software.

Thus the language of the Planned Change Request demonstrates that the configuration it proposes for WIPP is significantly different from the configuration of WIPP set forth in the 2019 CRA.

4. The additional information and experiments requested by the EPA demonstrate the significant difference between the proposal in the Planned Change Request and the 2019 CRA.

Finally, and perhaps most significantly, the EPA has required the DOE to address both the proposed expansion of the WIPP facility through the addition of Panels 13 through 19 and the changed types of waste that would be disposed of in the WIPP facility in the future.

In April of this year, Tom Peake, the Director of the EPA Center for Waste Management and Regulations sent a letter to Michael Gerle of the Environmental Regulatory Compliance Division of DOE providing the DOE with the EPA's first set of technical questions on the Planned Change Request. The opening paragraph of that letter demonstrates that the Planned Change Request (referred to in the letter as the "Replacement Panels Planned Change Request" or "RPPCR") addresses the expansion of the WIPP facility to a 19 Panel repository. The letter states:

Please perform a sensitivity calculation demonstrating how releases are affected in a 12-panel and *19-panel repository* if 100% of performance assessment (PA) realizations used Pu (III) solids in equilibrium with aqueous Pu (III) consistent with previous EPA analyses (see EPA Air Docket EPA-HQ-OAR-2019-0534-0049).

Enclosure 1 to Peake letter to Gerle dated April 17, 2024, page 1, paragraph 1.

Mr. Peake's letter also points out that:

DOE has not sufficiently addressed existing uncertainties in both the repository chemical conditions and the experiments (Beam 2023) used in the current iteration of the OXCUTOFF parameter (see Enclosure 2). Some of these uncertainties include:

- Issues with experiments used to justify the update including questions on representativeness of the Pu concentrations, timescales, and ORP measurements taken, as well as inconsistencies with results from previously performed LANL experiments (*i.e.*, Reed 2006, 2011)
- Lack of justification on the iron phases used to represent the upper bound redox conditions in the post-closure repository
- Uncertainty about the reactivity of H₂(g) in the repository and the presence of any redox catalysts
- Impacts of radiolysis on redox conditions.

Enclosure 1 to Peake letter to Gerle dated April 17, 2024, page 1, paragraph 2.

The reference to Enclosure 2 is spelled out at the conclusion of the attachment to Mr. Peake's letter where Mr. Peake raised "Ongoing uncertainties related to WIPP chemical conditions and Pu oxidation state." Within that heading, information is requested about "Questions and uncertainties on the ongoing Pu-239 Experiments (Beam 2023)" and "Questions and uncertainties on WIPP repository chemical conditions".

These questions and requests for information demonstrate that changes are contemplated in the type of waste that will be disposed of in the WIPP facility. This too is evidence of the significant difference between the configuration of the WIPP facility in the 2019 CRA and the proposed configuration of the WIPP facility as indicated in the Proposed Change Request.

Conclusion

For all of these reasons, the EPA must conduct a rulemaking proceeding to determine whether to approve the Planned Change Request for the configuration of the WIPP facility.

Dated: June 20, 2024

/s/ Douglas Meiklejohn

Douglas Meiklejohn, Attorney

Water Quality & Land Restoration Advocate

Conservation Voters of New Mexico