

Department of Energy

Carlsbad Field Office P. O. Box 3090 Carlsbad, New Mexico 88221

March 19, 2024

Mr. Ricardo Maestas, Bureau Chief Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87508-6303

Subject: Class 1 Permit Modification Notifications, Waste Isolation Pilot Plant Hazardous Waste Facility Permit Number: NM4890139088-TSDF

Dear Mr. Maestas:

The purpose of this letter is to provide you with the Class 1 Permit Modification Notifications for the following items:

- Revise text in Permit Part 1, Section 1.15.1 through 1.15.5, regarding Tribal Community notice and involvement.
- Revise text in Permit Attachment A1, concerning the flood zone designation for the Waste Isolation Pilot Plant (WIPP) facility.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. Michael Gerle at (575) 988-5372.

Sincerely,

Signatures on File

Mark Bollinger Manager Carlsbad Field Office Ken Harrawood Program Manager Salado Isolation Mining Contractors LLC

Enclosure

Mr. Ricardo Maestas

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Class 1 Permit Modification Notifications

 Revise Text in Permit Part 1, Sections 1.15.1 through 1.15.5, Regarding Tribal Community Notice and Involvement
 Revise Text in Permit Attachment A1 Concerning the Flood Zone Designation for the WIPP Facility

> Waste Isolation Pilot Plant Carlsbad, New Mexico

WIPP Permit Number - NM4890139088-TSDF

March 2024

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Acronyms and Abbreviations

Agreement	Settlement Agreement and Stipulation on the Draft Permit
CFR	Code of Federal Regulations
CRP	Community Relations Plan
DOE	Department of Energy
FEMA	Federal Emergency Management Agency
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
Permit	Waste Isolation Pilot Plant Hazardous Waste Facility Permit
Permittees	U.S. Department of Energy and Salado Isolation Mining Contractors, LLC
PMNs	Permit Modification Notifications
PMP	probable maximum precipitation
SFHA	Special Flood Hazard Area
STCA	State-Tribal Collaboration Act
WIPP	Waste Isolation Pilot Plant

Overview of the Permit Modification Notifications

This document contains two Class 1 Permit Modification Notifications (**PMNs**) for the Waste Isolation Pilot Plant (**WIPP**) Hazardous Waste Facility Permit (**Permit**) Number NM4890139088-TSDF.

These PMNs are being submitted by the U.S. Department of Energy and Salado Isolation Mining Contractors LLC, collectively referred to as the Permittees, in accordance with Permit Part 1, Section 1.3.1. (20.4.1.900 New Mexico Administrative Code [**NMAC**] incorporating Title 40 of the Code of Federal Regulations [**CFR**] §270.42(a)). The PMNs in this document are necessary to notify the New Mexico Environment Department (**NMED**) of changes which impact the Permit. These changes do not reduce the ability of the Permittees to provide continued protection to human health and the environment.

The requested modifications to the Permit and any related supporting documents are provided in these PMNs. The proposed modifications to the text of the Permit have been identified using red text and <u>double underline</u> and a strikeout font for deleted information. All direct quotations are indicated by italicized text.

Attachment A Description of the Class 1 Permit Modification Notifications

Table 1. Class 1 Hazardous Waste Facility Permit Modification Notifications

ltem No.	Affected Permit Section	Change Description	Category
1	Part 1, Section 1.15.1, Requirement for Community Relations Plan, Section 1.15.2, Contents of Community Relations Plan, Section 1.15.3, Government to Government Consultation, 1.15.4 Initial Consultation on Community Relations Plan, 1.15.5 Annual Compilation of Comments on Community Relations Plan	This modification revises Permit Part 1, Sections 1.15.1, 1.15.2, 1.15.3, 1.15.4, and 1.15.5, to revise text regarding tribal communities. This change is being made in response to Item 7e of the Settlement Agreement and Stipulation on the Draft Permit (Agreement), dated June 23, 2023, to ensure consistency with reference to New Mexico tribal communities.	A.1
2	Attachment A1, <i>Container Storage</i>	This modification revises text in Permit Attachment A1, <i>Container Storage</i> , pertaining to flood zone designations. This change is being made in response to Item 7e of the Agreement, dated June 23, 2023, to address the flood zone designation.	A.1

Item 1

Description

This modification revises Permit Part 1, Sections 1.15.1, 1.15.2, 1.15.3, 1.15.4, and 1.15.5, to revise text regarding tribal communities. This change is being made in response to Item 7e of the Settlement Agreement and Stipulation on the Draft Permit (**Agreement**), dated June 23, 2023, to ensure consistency with reference to New Mexico tribal communities.

The changes being made to Permit Part 1, Section 1.15.1 are described below:

- Changed "communities and interested members of the public" to "communities and the general public, including interested members of New Mexico's nation, tribes, and pueblos (collectively referred to as interested parties)."
- Changed "communities and interested members of the public" to "interested parties."

The changes being made to Permit Part 1, Section 1.15.2, Section 1.15.3, Section 1.15.4, Section 1.15.5 are described below:

- Changed "affected tribes and pueblos" to "affected nations, tribes, and pueblos."
- Changed "communities and interested members of the public" to "interested parties."

Basis

This change is classified as "Administrative and informational changes" and is, therefore, a Class 1 modification pursuant to 20.4.1.900 NMAC (incorporating 40 CFR §270.42, Appendix I, A.1).

Discussion

This change is needed to implement Item 7e of the Agreement. Item 7e stated:

e. Permittees agree to timely prepare and file two Class 1 Permit modifications with the NMED to change 100-year flood plain to 500-year flood plain and to ensure consistency with reference to the Tribal communities for notice and community involvement.

This change in Permit Part 1, Section 1.15.1, revises the phrase "communities and interested members of the public" to "communities and the general public, including interested members of New Mexico's nations, tribes, and pueblos (collectively referred to as interested parties)" to broaden the audience for the Community Relations Plan (**CRP**) and to specifically include interested members of New Mexico's nations, tribes, and pueblos. This inclusive audience will be collectively referred to as "interested parties." Additionally, occurrences throughout Section 1.15.2 through Section 1.15.5 of the phrase "communities and interested members of the public" are changed to "interested parties" for consistency with the change made above. This change ensures that New Mexico's nations, tribes, and pueblos are encompassed in the term "interested parties" throughout the CRP.

Permit Part 1, Section 1.15.2, also requires the Department of Energy (**DOE**) to "establish a productive government-to-government relationship between the Permittee DOE and affected tribes and pueblos." The change in this PMN to specifically include New Mexico's nations,

tribes, and pueblos in the term "interested parties" is not to be understood as a surrogate to DOE Order 144.1, *Department of Energy American Indian Tribal Government Interactions and Policy*.

The change "tribes and pueblos" to "nations, tribes, and pueblos" revises the language to be consistent with the definition in the State-Tribal Collaboration Act (**STCA**), N.M. Stat. § 11-18-1. The STCA is the framework for state agencies and tribes to develop policies that promote beneficial collaboration between the state and tribal governments. The STCA defines "Indian nation, tribe or pueblo" as "any federally recognized Indian nation, tribe or pueblo located wholly or partially in New Mexico" N.M. Stat. §11-18-2.

Proposed Revised Permit Text:

PART 1 – GENERAL PERMIT CONDITIONS

1.15 COMMUNITY RELATIONS PLAN

1.15.1 <u>Requirement for Community Relations Plan</u>

The Permittees shall establish and implement a Community Relations Plan (**CRP**) to describe how the Permittees will keep communities and interested members of the <u>publicgeneral public, including interested members of New Mexico's nations, tribes, and pueblos (collectively referred to as interested parties)</u> informed of Permit-related activities, including waste management, closure, post-closure, and corrective action, as specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.32(b)(2)). The CRP shall explain how communities and interested members of the public<u>interested parties</u> can participate in Permit-related activities.

1.15.2 Contents of Community Relations Plan

The CRP must describe how the Permittees will accomplish the following elements:

- 1. Identify and establish an open working relationship with communities and interested members of the public<u>interested parties</u>;
- 2. Establish a productive government-to-government relationship between the Permittee DOE and affected <u>nations</u>, tribes, and pueblos;
- 3. Keep communities and interested members of the public <u>interested</u> <u>parties</u> informed of permit actions of interest (e.g., implementation of the Contingency Plan, Permit modification requests, Permit compliance issues), to include pre-submittal meetings for Class 2 and 3 permit modification requests;
- 4. Minimize disputes and resolve differences with communities and interested members of the public<u>interested parties</u>;
- 5. Provide a mechanism for the timely dissemination of information in response to individual requests; and
- 6. Provide a mechanism for communities and interested members of the public<u>interested parties</u> to provide feedback and input to the Permittees.
- 7. The Permittees shall conduct WIPP Community Forum public meetings three times per year with interested stakeholders, communities, and members of the public<u>interested parties</u>. Specifically, the Permittees must invite the members of the New Mexico Radioactive Waste Consultation Task Force to each meeting. The Permittees shall provide evidence of at least 30 days' public notice prior to the meeting taking place.

1.15.3 Government to Government Consultation

DOE shall consult on a government-to-government basis with affected <u>nations</u>, tribes, and pueblos in New Mexico when developing the CRP in an effort to ensure the program is responsive to their needs. DOE shall document in the operating record of this Permit and post on the WIPP Home Page all consultations, communications, agreements, and disagreements between DOE and affected <u>nations</u>, tribes, and pueblos in New Mexico only with the express approval of those entities, regarding the development of the CRP. The CRP shall specify how DOE will consult on a government-to-government basis with affected <u>nations</u>, tribes, and pueblos annually concerning how they may be made better informed of the issues related to this Permit.

1.15.4 Initial Consultation on Community Relations Plan

The Permittees shall communicate with and solicit comments from communities and interested members of the publicinterested parties when developing the CRP in an effort to ensure the program is responsive to their needs. The Permittees shall document in the operating record of this Permit all consultations, communications, agreements, and disagreements between the Permittees and all participating entities, with the approval of those entities, regarding the development of the CRP.

1.15.5 Annual Compilation of Comments on Community Relations Plan

The CRP shall specify how the Permittees will solicit comments from communities and interested members of the publicinterested parties annually concerning how they may be made better informed of the issues related to this Permit. The CRP shall specify that the Permittees will annually post on the WIPP Home Page a compilation of all such comments, including any statements of disagreement, with the approval of those entities in a manner set forth in the CRP.

Item 2

Description

This modification revises text in Permit Attachment A1, *Container Storage*, pertaining to flood zone designations. This change is being made in response to Item 7e of the Agreement and, dated June 23, 2023, to address flood zone designations.

Text addressing 20.4.1.500 NMAC (incorporating 40 CFR §270.14(b)(11)(iii) and (iv)) regarding the 100-year flood plain evaluation was added. Information in this section was also re-arranged to align and separate descriptive information pertaining to a probable maximum precipitation event and the 100-year floodplain evaluation.

The changes being made to Permit Attachment A1, Section A1-1c(1), *Waste Handling Building Container Storage Unit (WHB Unit)*, are described below:

- Created new paragraph beginning with, "Design calculations for the probable maximum precipitation (PMP) event ..." The following text was moved to this new paragraph: "Protection from flooding or ponding caused by PMP events is provided by the diversion of water away from the WIPP facility by a system of peripheral interceptor berms and dikes. Additionally, grade elevations of roads and surface facilities are designed so that storm water will not collect within the Property Protection Area under the most severe conditions." This text was relocated from the paragraph previously beginning with "The WIPP facility does not lie within a 100-year floodplain."
- Created new paragraph beginning with, "A design-basis flood report is not available because ..." This sentence was previously located in the paragraph beginning "The WHB has been designated to meet DOE design..."
- The following text was added to the new paragraph beginning with "A design-basis flood report is not available because ...": "The regulations in 20.4.1.500 NMAC (incorporating 40 CFR §270.14(b)(11)(iii)) require facilities to provide an identification of whether the facility is located within a 100-year floodplain. The WIPP facility does not lie within a 100-year floodplain, therefore the requirement pertaining to floodplain in 20.4.1.500 NMAC (incorporating 40 CFR §270.14(b)(11)(iii) and (iv)) does not apply to the WIPP facility. Although, the Settlement Agreement and Draft Permit dated June 23, 2023, (Item 7e) stated a Class 1 modification would be submitted to change the 100-year floodplain designation to the 500-yr floodplain designation, the Permittees evaluated whether the WIPP facility lies within the Federal Emergency Management Agency (FEMA) designated 500-year floodplain and determined that the WIPP facility does not lie within a 500-year floodplain."

Basis

This change is classified as "Administrative and informational changes" and is, therefore, a Class 1 modification pursuant to 20.4.1.900 NMAC (incorporating 40 CFR §270.42, Appendix I, A.1).

Discussion

This change is needed to address a commitment made in Item 7e of the Agreement. Item 7e stated:

e. Permittees agree to timely prepare and file two Class 1 Permit modifications with the NMED to change 100-year flood plain to 500-year flood plain and to ensure consistency with reference to the Tribal communities for notice and community involvement.

Text addressing 20.4.1.500 NMAC (incorporating 40 CFR §270.14(b)(11)(iii) and (iv)) regarding the 100-year flood plain evaluation was added to clearly explain that the WIPP facility does not lie within a 100-year floodplain, therefore the requirement pertaining to floodplains therein do not apply to the WIPP facility. Additionally, to address the language in the Agreement, the Permittees have evaluated the location of the WIPP facility in relation to the designated 500-year floodplain. As a result of that evaluation, text was added to show that Permittees have confirmed the WIPP facility is situated outside of the 500-year floodplain.

Flood hazard areas are categorized by the Federal Emergency Management Agency (FEMA) into three main groups: Special Flood Hazard Areas (SFHA), moderate flood hazard areas, and areas of minimal flood hazard. The areas classified as SFHA are defined as that which will be inundated by a flood event having a 1% annual chance of being equaled or exceeded in any given year. The 1% annual chance flood is also referred to as a 100-year flood zone. Moderate flood hazard areas represent the areas between the limits of the base flood and the 0.2% annual-chance (or 500-year) flood. The areas outside of the SFHA and in a location that maintains a higher elevation of the 500-year flood are considered to be areas of minimal flood hazard. The Land Withdrawal Act boundary is located within the areas of minimal flood hazard, maintaining the requirements for elevation and proximity to the SFHA as depicted in Figure 1. Figure 1 in Attachment B was developed by the Permittees using the FEMA Flood Insurance Rate Layer to demonstrate the proximity of the entire facility to the nearest flood zone. Figure 2 depicts the northern portion of the WIPP facility located on the FEMA Flood Insurance Rate Map. Figure 3 depicts the southern portion of the WIPP facility located on the FEMA Flood Insurance Rate Map. As shown in Figure 1, the WIPP facility lies within Unshaded Zone X. outside of both the 100-year floodplain and the 500-year floodplain. The FEMA identifies No Screen Zone X as an Area of Minimal Flood Hazard in Figure 2 and Figure 3.

Proposed Revised Permit Text:

ATTACHMENT A1

CONTAINER STORAGE

A1-1c(1) Waste Handling Building Container Storage Unit (WHB Unit)

CH TRU Mixed Waste

The WHB has been designed to meet DOE design and associated quality assurance requirements. The 2009 Amended Renewal Application, Chapter M1, Table M1-1 (DOE, 2009) provided a summary of basic design requirements, principal codes, and standards for the WIPP facility. Appendix D2 of the WIPP RCRA Part B Permit Application (DOE, 1997a) provided engineering design-basis earthquake and tornado reports. The design-basis earthquake report provides the basis for seismic design of WIPP facility structures, including the WHB foundation. The WIPP facility design-basis earthquake is 0.1 g peak ground acceleration. The WIPP facility design-basis tornado includes a maximum windspeed of 183 miles per hour (**mi/hr**) ((294.5 kilometers per hr (**km/hr**)), which is the vector sum of the velocity components. It is also limited to a translational velocity of 41 mi/hr (66 km/hr) and a tangential velocity of 124 mi/hr (200 km/hr). Other parameters are a radius of maximum wind of 325 ft (99 m), a pressure drop of 0.5 pounds per square inch (**Ib/in.**²) (3.4 kilopascals (**kPa**)), and a rate-of-pressure drop of 0.09 pounds per square inch per second (**Ib/in.**²/s) (0.6 kilopascals per second (**kPa/s**)). A design basis flood report is not available because flooding is not a credible phenomenon at the WIPP facility.

Design calculations for the probable maximum precipitation (**PMP**) event, provided in Appendix D7 of the WIPP RCRA Part B Permit Application (DOE, 1997a), illustrated run-on protection for the WIPP facility. <u>Protection from flooding or ponding caused by PMP events is provided by the diversion of water away from the WIPP facility by a system of peripheral interceptor berms and dikes. Additionally, grade elevations of roads and surface facilities are designed so that storm water will not collect within the Property Protection Area under the most severe conditions.</u>

A design-basis flood report is not available because flooding is not a credible phenomenon at the WIPP facility. The WIPP facility does not lie within a 100-year floodplain. There are no major surface-water bodies within 5 miles (mi) (8 kilometers (km)) of the site, and the nearest river, the Pecos River, is approximately 12 mi (19 km) away. The general ground elevation in the vicinity of the surface facilities (approximately 3,400 feet (ft) (1,036 meters (m)) above mean sea level) is about 500 ft (152 m) above the riverbed and 400 ft (122 m) above the 100-year floodplain. The regulations in 20.4.1.500 NMAC (incorporating 40 CFR §270.14(b)(11)(iii)) require facilities to provide an identification of whether the facility is located within a 100-year floodplain. The WIPP facility does not lie within a 100-year floodplain, therefore the requirement pertaining to floodplain in 20.4.1.500 NMAC (incorporating 40 CFR §270.14(b)(11)(iii) and (iv)) does not apply to the WIPP facility. In response to the Settlement Agreement and Draft Permit dated June 23, 2023, (Item 7e) the Permittees evaluated whether the WIPP facility lies within the Federal Emergency Management Agency (FEMA) designated 500-year floodplain and determined that the WIPP facility does not lie within a 500-year floodplain. Protection from flooding or ponding caused by PMP events is provided by the diversion of water away from the WIPP facility by a system of peripheral interceptor berms and dikes. Additionally, grade elevations of roads and surface facilities are designed so that storm water will not collect within the Property Protection Area under the most severe conditions.

Attachment B Figures - Flood Zone Designation for WIPP Facility

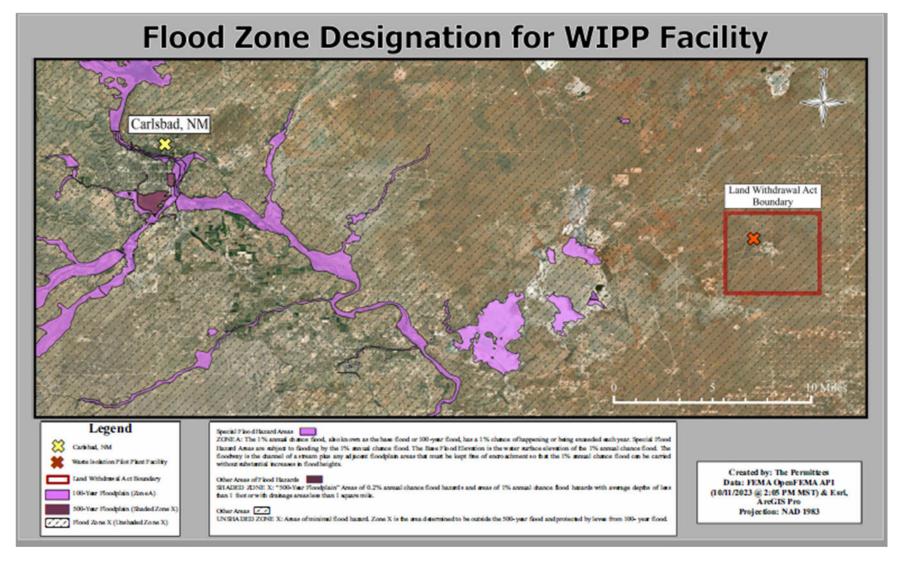


FIGURE 1 - FLOOD ZONE DESIGNATION FOR WIPP FACILITY

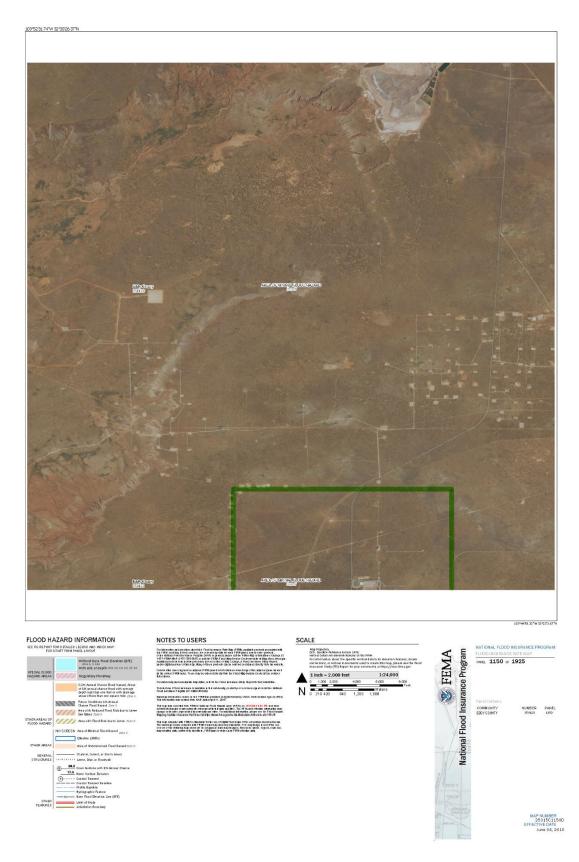


FIGURE 2 – NORTH PANEL

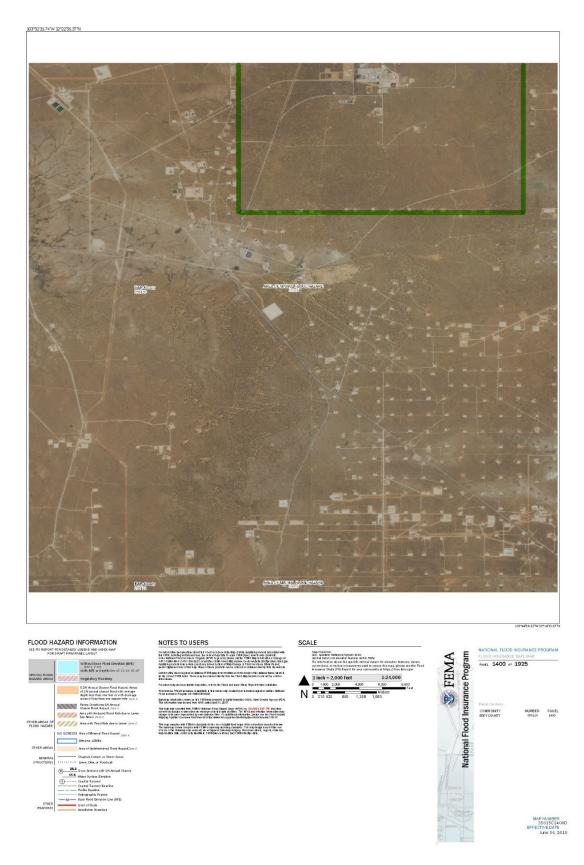


FIGURE 3 – SOUTH PANEL