

**STATE OF NEW MEXICO  
BEFORE THE SECRETARY OF ENVIRONMENT**

**IN THE MATTER OF  
HEARING DETERMINATION REQUEST  
CLASS 3 "EXCAVATION OF A NEW Shaft  
AND ASSOCIATED CONNECTING DRIFTS"  
PERMIT MODIFICATION TO THE WIPP  
HAZARDOUS WASTE FACILITY PERMIT**

**Docket No. HWB 21-02**

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**HEARING OFFICER'S REPORT AND RECOMMENDED DECISION**

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**INTRODUCTION**

The Waste Isolation Pilot Plant ("WIPP"), located in Eddy County, New Mexico, is a facility authorized by Congress for the disposal of transuranic radioactive waste materials generated by atomic energy defense activities of the United States. Radioactive and hazardous waste ("mixed waste") generated across the United States at Department of Energy ("DOE") facilities is transported to WIPP for disposal. Mixed waste is radioactive waste that is also a hazardous waste as defined by the Hazardous Waste Act, NMSA 1978, §§ 74-1-14 to -14 (1977 as amended through 2018) and is thus subject to regulation by the New Mexico Environment Department (NMED) through the Hazardous Waste Bureau ("Bureau"), which includes review and issuance of permit modifications.

WIPP is a unique facility. It is the only disposal facility of its kind in the Western Hemisphere. It does not neatly fit into the federal regulations governing hazard waste as they were drafted (there are no WIPP regulations per se).

WIPP is a salt bed repository and the only deep geologic repository for nuclear waste operated in the United States. Waste disposal panels, each the size of several football fields, are mined out of the salt bed nearly a half-mile below the

surface. Most of the TRU waste at WIPP consists of clothing, tools, rags, residues, debris, and soil, that are produced while working with plutonium. As of 2019, approximately 180,225 waste containers were disposed at WIPP, mostly in 55-gallon drums.

WIPP was certified by the United States Environmental Protection Agency (“EPA”) in 1998 and received Hazardous Waste Facility Permit No. NM4890139088-TSDF (“Permit”) from the Bureau the same year. Disposal at the facility began in 1999, and recertification is scheduled to occur every 5 years. DOE submitted applications for recertification in 2004, 2009, 2014, and 2019. EPA issued its third recertification decision for WIPP on July 13, 2017. The Bureau renewed the facility’s permit in 2010.

On August 15, 2019, DOE and its Managing and Operating Contractor, Nuclear Waste Partnership, LLC (“NWP”) (collectively “Permittees” or “Applicants”) submitted a Class 3 Permit Modification Request (“PMR”) to the Bureau in accordance with Permit Part 1, § 1.3.1, and 20.4.1.900 NMAC (incorporating 40 CFR §. 270.42(c)). The purpose of the PMR is an upgrade to the permanent ventilation system via a revision of the facility description in the Permit to include a new shaft (“Shaft #5”) and additional drifts to connect Shaft #5 to the existing underground WIPP Facility. It proposes that Shaft #5 will be 1,200 feet west of the Air Intake Shaft and will be used as the primary air intake shaft for the underground repository. The PMR also proposes to update the description of the underground ventilation system to include new surface intake fans and describe the ventilation airflow pathway with the Shaft #5 configuration, modify the Property Protection Area, and make changes to the fire-water distribution system and

evacuation routes in the Contingency Plan required by the federal Resource Conservation and Recovery Act ("RCRA").

The Public Hearing in this matter was held virtually via the Zoom platform from May 17, 2021 - May 20, 2021, conducted by Gregory Ara Chakalian, Office of Public Facilitation's Administrative Law Judge, and the duly appointed Hearing Officer. The Hearing was conducted in accordance with 20.1.4 NMAC, NMED's Permitting rule, recorded by Zoom and transcribed verbatim by Cheryl Arreguin of Albuquerque Court Reporting Service, LLC. Spanish language interpreters were sworn in at the outset and provided live instruction before the hearing began each day in English and Spanish how to use the simultaneous interpretation Zoom feature. The Governor's Emergency Order and a New Mexico Department of Health Public Health Order were in effect during the entirety of the Hearing. The following Parties submitted Notices of Intent to Present Technical Testimony ("NOI"):

The Bureau appeared through Counsel of Record Christopher J. Vigil and Christal Weatherly, Assistant General Counsel, 121 Tijeras Ave. NE, Suite 1000, Albuquerque, New Mexico 87102. The Bureau presented the testimony of Megan M. McLean, Environmental Scientist/Specialist-Advanced, Stephanie Stringer, Resource Protection Division Director, and Ricardo Maestas, Staff Manager of the WIPP Group within the Bureau.

The Permittees appeared through Counsel of Record, Michael L. Woodward, ESQ., Hance Scarborough, LLP, 400 West 15th Street, Suite 950, Austin, Texas 78620; Robert A. Stranahan, IV, ESQ., Law Office of Robert A. Stranahan, IV, 29 A Rancho Mañana, Santa Fe, New Mexico 87506; and J.D. Head, ESQ., Fritz, Byrne, Head & Gilstrap, PLLC, 221 W. 6<sup>th</sup> Street, Suite 960 Austin, Texas 78701. Called as

witnesses for Permittees were Robert F. Kehrman, Technical Consultant to the Manager of Regulatory Environmental Services, an affiliate of Nuclear Waste Partnership, LLC., Jill Farnsworth, Senior Technical Advisor for Regulatory Environmental Services, and Robert M. Holt, Technical Consultant to the Edgewater Technical Associates.

Interested Party Steve Zappe (“Zappe”) filed a timely Notice of Intent and testified during the hearing.

Interested Party Southwest Research and Information Center (“SRIC”) appeared through Counsel of Record Lindsay Lovejoy, ESQ., 3600 Cerrillos Rd., Unit 1001, Santa Fe, NM 87505 presented the testimony of Don Hancock.

Interested Party Concerned Citizens for Nuclear Safety (“CCNS/Reade”) appeared through Counsel of Record Joni Arends and Deborah Reade, P.O. Box 31147, Santa Fe, NM 87594 filed a timely Notice of Intent but presented no direct testimony at the hearing.

Interested Party George Anastas filed a timely Notice of Intent and testified at the hearing.

Interested Party Dr. James Channell filed a timely Notice of Intent and testified during the hearing.

Interested Party Scott Kovac representing Nuclear Watch N.M. was present.

Approximately one hundred (100) members of the public attended, many offered sworn testimony, and were afforded multiple opportunities to provide verbal comments and cross-examine witnesses. In addition, the record was kept open until 5:00 pm MDT on May 20, 2021, for the submission of additional written public comments.

The record proper includes, *inter alia*, the application for the permit modification request (“Application”), the Public Hearing Determination Request, a Notice of Docketing and Appointment of Hearing Officer, a Scheduling Order filed February 12, 2021, a Pre-hearing Order and Instructions filed February 25, 2021, the First Amended Scheduling Order filed March 30, 2021, a Sue Sponte Order Setting Opposed Motion Deadline filed March 31, 2021, SRIC’s Motion to Dismiss and the corresponding Responses and an Order Denying Southwest Research and Information Center’s Motion to Dismiss filed April 23, 2021, an Order on Motion in Limine filed April 26, 2021, a Pre-hearing Order filed May 11, 2021, notices of public hearing in English and Spanish, the Administrative Record submitted by the Bureau with supplementation, notices of filing and affidavits of publication, the Verbatim Transcript, written public comment and other documents and exhibits submitted at the hearing, the Notice of transcript Filing, post-hearing submittals from the Parties, and this Report and Recommended Decision.

An independent summary of the testimony is not set out here; Permittees, Bureau, SRIC, CCNS/Reade and Zappe submitted excellent summaries of the testimony as part of their proposed findings of facts and conclusions of law. After an analysis of the Hearing Record as defined under 20.1.4.7.A.2.14, the undersigned Hearing Officer adopts the true facts below. SRIC filed a Motion to Dismiss which was denied based on the pleadings.

The Bureau filed a Motion in Limine which was granted-in-part based on 20.4.1.901.B(7) NMAC which states in relevant part: “In a permit modification under this section, only those conditions to be modified shall be reopened. All other

aspects of the existing permit shall remain in effect for the duration of the unmodified permit.”

Finally, the Hearing Officer *sua sponte* during the hearing ruled that the issue of the Bureau’s initial approval of the Temporary Authorization Request, the appeal of the Request and subsequent dismissal, and the Bureau’s denial of the reissuance of the Request were separate and discrete administrative processes and not relevant subject matter for the public hearing on the PMR. The ruling and legal reasoning in support thereof was addressed on the record pursuant to 20.1.4.400.B.1 NMAC.

On May 18, 2021, the Hearing Officer devoted time reviewing the parties’ understanding of the phrase in the Class 3 PMR regulations requiring the permittee to “explain why the modification is needed.” Counsel for the Bureau, the Permittees, and Zappe shared their views of this requirement, which is captured in the transcript. The Hearing Officer issued no formal ruling from this discourse.

#### **APPLICABLE LAW**

New Mexico Hazardous Waste Act, NMSA 1978, §§ 74-4-1 - 74-4-14

New Mexico Hazardous Waste Management Regulations – Permitting Procedures, 20.4.1.900 and 20.4.1.901 NMAC

New Mexico Environment Department Permitting Procedures – 20.1.4 NMAC

#### **RECOMMENDATION**

Based upon the administrative record in its entirety, including the post-hearing submittals, I recommend that the Class 3 Permit Modification Request be issued, as set forth in the Administrative Record. What follows is drawn from Parties

post-hearing submissions based on the relevant evidence ruled admissible during the Public Hearing.

### **The Parties**

1. The NM Environment Department (“Department”) is an executive agency of the State of New Mexico and has jurisdiction over this matter. The Bureau is an organizational unit within the Department’s Resource Protection Division. Pursuant to the Hazardous Waste Act (“HWA”), NMSA 1978 §§ 74-4-1 to - 14 (1977 as amended through 2021), the Bureau is the administrative subdivision charged with reviewing the Application in this matter and making a recommendation regarding whether the PMR should be granted by the Secretary of the Environment (“Secretary”). 40 CFR §. 272.1601; NMSA 1978, §§ 9-7A-4, 6 to - 9 (1991); 74-1-7(A)(14) (2000).

2. DOE is the federal agency charged with the responsibility to manage radioactive materials, including radioactive waste. The DOE owns WIPP. 42 U.S.C. §§ 2011; 7112; 7151(a) (2018).

3. Nuclear Waste Partnership, LLC (“NWP”) is a partnership between Amentum Energy Services LLC and BWXT Technical Services Group, Inc. NWP is the Management and Operating Contractor of the WIPP Facility and is tasked with the responsibility for the construction of Shaft #5 and the connecting drifts proposed in the PMR. [DOE NWP Ex. 1 at 11]

4. George Anastas is a party in this matter.

5. Citizen Action New Mexico (“CANM”) is a non-profit organization and a party in this matter.

6. Concerned Citizens for Nuclear Safety (“CCNS/Reade”) is a non-profit organization and in conjunction with Deborah Reade are parties in this matter.

7. Nuclear Watch New Mexico (“NWNM”) is a non-profit organization and a party in this matter.

8. Southwest Research and Information Center (“SRIC”) is a non-profit organization and a party in this matter.

9. Steve Zappe is a party in this matter.

**B. The Facility**

10. The Federal Land Withdrawal Act (“LWA”) (AR180706.03 and AR180706.04), passed in 1992 and amended in 1996, defines the term “WIPP” as “the Waste Isolation Pilot Plant project authorized under 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) (AR180121.09) to demonstrate the safe disposal of radioactive waste materials generated by atomic energy defense activities.” The WIPP facility is a mined geologic repository in a deep salt formation located in Eddy County, New Mexico designed for the permanent emplacement of transuranic waste (“TRU”).<sup>1</sup>

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<sup>1</sup> Section 2 of the Land Withdrawal Act defines Transuranic Radioactive Waste as waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years, except for—

(A) high-level radioactive waste;

(B) waste that the Secretary has determined, with the concurrence of the Administrator, does not need the degree of isolation required by the disposal regulations; or

(C) waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with part 61 of title 10, Code of Federal Regulations.; PL 102-579 § 2(18).



11. The WIPP Facility is located 26 miles southeast of Carlsbad, New Mexico in the remote desert of the Delaware Basin, under which is the Salado Formation, a 2,000-foot-thick salt bed below the surface. [NMED Ex. 5 at 6]

12. The WIPP facility is defined in 20.4.1.100 NMAC (incorporating 40 CFR § 260.10) as a Miscellaneous Unit. [Applicants' Exhibit 1, pg. 19: 16 – 17]

13. The underground Miscellaneous Unit is 2,150 ft beneath the ground surface. The regulated units in which TRU mixed waste disposal is conducted are in the southern portion of the mined area. [Applicants' Exhibit 1, pg. 19: 17 – 19]

14. A Miscellaneous Unit classification requires the WIPP facility to be operated in a manner that protects human health and the environment, and facility specific limits, referred to as environmental performance standards, are to be established as part of permits issued for the facility to ensure that it is protective. These standards may take the form of numerical exposure specifications (such as the allowable concentration of a chemical at the points of human exposure), pollutant concentrations permitted to be released to the environment, or general objectives or goals to serve as a guide for protecting human health and the environment. [Applicants' Exhibit 1, pg. 19: 20 – 21; [Applicants' Exhibit 1, pg. 19: 21 - pg. 20: 8]

15. WIPP receives TRU mixed waste from generators across the DOE complex and is subject to permitting by the State of New Mexico under the HWA and RCRA. WIPP is currently operating under a Permit issued by the Department, authorizing the management, storage, and disposal of TRU mixed waste at the Facility. [NMED Ex. 5 at 6]

16. WIPP first received a hazardous waste facility Permit from the Bureau in 1999, and the permit was renewed in 2010. WIPP is currently permitted to

manage, store, and dispose of TRU mixed waste, and to close disposal units. [NMED Ex. 5 at 6; Permit Part 1, General Permit Conditions, p. 1-1]

17. The Permit Application submitted to the NMED in 1996 as well as both renewal applications in 2009 and 2020 documented these assessments and demonstrated that the only possible pathway for release during operations is the air pathway, involving volatile organic emissions from disposed containers of TRU. [Applicants' Exhibit 1, pg. 20: 10 – 14]

18. Using the information provided by the Permittees, the NMED established environmental performance standards to protect surface workers and underground workers from emissions of volatile organic compounds to ensure compliance with the permitting standards for Miscellaneous Units. [Applicants' Exhibit 1, pg. 20: 14 – 17]

19. The WIPP facility is in a sparsely populated area. The area surrounding the facility is used primarily for grazing, potash mining, and hydrocarbon production. These types of uses have resulted in a relatively stable permanent population immediately adjacent to the boundary of the WIPP site since there is little infrastructure to support development beyond the current limited uses for grazing and mineral extraction. [Applicants' Exhibit 1, pg. 20: 19 - 21: 3]

20. No resource development that would affect WIPP facility operations or the long-term integrity of the facility is allowed within the 10,240 acres that have been set aside for the use by the DOE for the WIPP facility. [Applicants' Exhibit 1, pg. 21: 3 – 5]

21. The physical attributes of the WIPP facility and its vicinity contribute to the ability of the Permittees to isolate TRU mixed waste within the WIPP facility and

ensure that human health and the environment are protected. Geologic studies indicate that the repository host rock, known as the Salado, is essentially free of void space and water that could cause dissolution and create openings within the formation. This eliminates circulating brine water as a transport mechanism for TRU mixed waste migration to the surface or to groundwater during the Disposal Phase and facility closure. [Applicants' Exhibit 1, pg. 21: 6 – 12]

22. The main underground entries for the WIPP repository were designed based upon empirical data; site characterization data, including information from boreholes; surface geophysical measurements and laboratory tests; and mining and engineering standards universally applied to underground projects. [Applicants' Exhibit 1, pg. 21: 13 – 16]

23. The room-and-pillar design concept for the WIPP facility was based on general potash mining practice in the vicinity under similar lithologic conditions. [Applicants' Exhibit 1, pg. 21: 16 – 17]

24. The WIPP LWA authorized total capacity of limit of 6.2 million ft<sup>3</sup> (175,564 m<sup>3</sup>) of TRU waste. [Applicants' Exhibit 1, pg. 12: 8 – 9]

25. The WIPP LWA did not set a specific date in which WIPP operations will cease. Rather, closure of the WIPP will occur when the mission of safely disposing an authorized capacity of TRU waste has been completed. If no more disposal capacity is authorized by Congress, final facility closure is expected to commence when Panel 8 is filled and closed (additional disposal panels are the subject of a future permit modification request). [May 20th, HWB 21-02 Transcript pg.168: 21 – 25; Applicants' Exhibit 1, pg. 44: 3 – 7; AR 191019.14]

26. The WIPP facility has been sited and designed to ensure safe operations and to be protective of human health and the environment. [Applicants' Exhibit 1, pg. 22: 1 – 2]

27. The Permittees have implemented an Environmental Management System ("EMS") as required by the DOE to ensure that operations at the WIPP facility are conducted in an environmentally safe, sound, and compliant manner. [Applicants' Exhibit 1, pg. 12: 18 – 20]

28. The EMS conforms to the guiding principles of the International Organization for Standardization. [Applicants' Exhibit 1, pg. 12: 20 – pg. 13: 1]

29. In addition, work performed by the Permittees at the WIPP facility is controlled by, and performed in accordance with, the DOE Quality Assurance Program Document. [Applicants' Exhibit 1, pg. 13: 2-4; U. S. Department of Energy, Carlsbad Field Office, DOE Quality Assurance Program Document. DOE/CBFO-94-1012. (AR180706.10)]

### **C. Procedural History of the PMR**

30. The administrative process for this Permit action began in 2017 when the Permittees filed a Notification of Planned Change to the Permitted Facility Regarding the Construction of a New Filter Building on June 9, 2017. [Zappe Exhibit 3b, Facility Record "FR" 170606]

31. Shortly thereafter a Notification of a Planned Change to the Permitted Facility regarding the Excavation and Construction of a Shaft and Connecting Drifts was filed on July 13, 2017. [AR 170715]

32. The Permittees held two non-mandatory pre-submittal meetings with the public to discuss the draft permit modification requests for the New Filter

Building and Shaft #5 on October 31, 2017, in Carlsbad, NM and November 9, 2017 in Albuquerque, NM. [AR 171109, 171106.5]

33. Permittees submitted a Class 2 PMR that included “Changes Due to Construction and Operation of a New Filter Building” on November 29, 2017. [Zappe Exhibit 4, FR 171112]

34. On December 22, 2017, Permittees submitted a Request for a Determination of Class for a Permit Modification Request for Shaft #5 (the proposed changes were not specifically classified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42 Appendix I)). [AR 171222; Applicants’ Exhibit 1, pg. 40: 19 – pg. 41: 6]

35. On January 25, 2019, the Bureau issued an Information Request, requesting clarification and additional information regarding the PMR. [NMED Ex. 1 at 3; AR No. 190115]

36. On March 4, 2019, the Permittees responded to the Bureau’s Information Request, stating that the proposed new shaft would support future disposal units by providing the airflow needed to mine, maintain, and subsequently emplace waste in new units. [NMED Ex. 5 at 9; AR Nos. 190301; 190115; 191019.14; Applicants’ Exhibit 1, pg. 4: 14- 15]

37. The Bureau approved the Class 2 PMR for the NFB with changes on March 23, 2018, following a 60-day public comment period. [FR 180310]

38. The Permittees withdrew the December 22, 2017, determination of class request, and filed the Class 3 PMR (the focus of this Report) on August 15, 2019. [Applicants’ Exhibit 1, pg. 41: 16 – 18; AR 190815]

#### **D. The Class 3 Permit Modification Request**

39. Pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270) and 20.4.1.901(B) NMAC, the Permittees submitted the PMR to the Bureau on August 15, 2019, to allow for the “[e]xcavation of a New Shaft and Associated Connecting Drifts.” [AR No. 19815 at 1]

40. The primary modification sought in the PMR consists of a new shaft (“Shaft #5”) along with associated drifts that connect Shaft #5 to the existing WIPP Facility. Shaft #5 and associated drifts is one of two projects referred to collectively as the Permanent Ventilation System (“PVS”), the other being the New Filter Building (“NFB”). The NFB project was previously submitted as a separate Permit Modification Request that has since been approved. Shaft # 5 will be used as the primary air intake shaft for WIPP and can support additional future uses. However, future uses outside of ventilation are not part of this PMR. [AR No. 19815 at 6; NMED Ex. 1 at 3]

41. The PMR responds to the requirement to indicate why the modification is needed (AR 190815 pp. 9 - 12), with the following statement in the PMR:

*"This modification is needed to add descriptive information regarding Shaft #5 and connecting drifts into the Permit. As a result of the 2014 radiological event, portions of the WIPP underground facility and the existing surface-mounted ventilation and exhaust systems became radiologically contaminated. Since the 2014 event the Permittees have operated the facility using continuous filtration of the underground Disposal and Waste Shaft Station Circuits exhaust air (filtration mode). Continuous filtration is used to mitigate any radioactive releases. The filtration system, as originally designed, can accommodate only a small percentage of the original design*

*flow needed to support the normal operations of construction, maintenance, and waste emplacement. The addition of Shaft #5 and associated connecting drifts represents an upgrade to the [Underground Ventilation System] and will provide a new intake and exhaust system capable of restoring full-scale, concurrent, mining, maintenance, and waste emplacement operations”.*

[Applicants’ Exhibit 1, pg. 41: 22 - 42: 16]

42. After the 2014 radioactive incident, the filtration system was modified and can accommodate only a small percentage of the original design airflow. The modified system was not intended to support the normal operations of simultaneous construction, maintenance, and waste emplacement. [Applicants’ Exhibit 1, pg. 4: 14 – 16]

43. The Permittees have operated the facility using continuous filtration of the air that is circulated through the underground disposal and waste shaft areas (filtration mode) as a means of mitigating radioactive releases to the atmosphere should they occur. [Applicants’ Exhibit 1, pg. 4: 9 – 12; May 17, 2021, HWB 21-02 Transcript pg. 40: 1-8]

44. Continuously operating the facility with reduced ventilation, entirely in filtration mode, is inefficient and unsustainable; it is intended to be a temporary provision, not a long-term solution. [Applicants’ Exhibit 1, pg. 4: 12 – 14; May 17, 2021, HWB 21-02 Transcript pg. 82: 11-18, pg. 107: 12-24]

45. Even though the addition of the NFB will increase the overall ventilation capacity, full scale mining utilizing a filtered exhaust circuit is not practical with just the NFB. [Applicants’ Exhibit 1, pg. 4: 16 – 18]

46. The PMR does not seek to add new disposal units, authorize an increased volume of waste, or change the type of waste authorized at the facility. [See generally Applicants' Exhibit 1]

47. The Permittees are not proposing to change environmental performance standards, nor the way compliance is demonstrated. [Applicants' Exhibit 1, pg. 20: 17 - 18]

48. The Permittees have limited the proposed modifications in this PMR to changes in the descriptive text in the Permit attachments to incorporate upgrades to the WIPP facility Underground Ventilation System ("UVS"). Without modification, the Permit would not contain language specific to the proposed Shaft #5 and the connecting drifts and consequently would be inadequate textually to provide an accurate description of the ventilation system for NMED to properly conduct oversight on structures and operations. [Applicants' Exhibit 1, pg. 7: 5 - 10]

49. The addition of Shaft #5 and the associated connecting drifts represents an additional upgrade to the UVS and will support a new intake and exhaust system capable of restoring full-scale (pre-2014), concurrent, unfiltered mining, maintenance, and continuously filtered waste emplacement operations. [Applicants' Exhibit 1, pg. 4: 18 - 21; May 18, 2021, HWB 21-02 Transcript pg.55: 3 - 10, NMED Exhibit 5, pg. 9: 1 -15 and 17 - 21]

50. The proposed ventilation reconfiguration employs Shaft #5 as the main air intake source for the repository. The Current Salt Handling Shaft and the Waste Handling Shaft will function as minor/secondary air intake sources. The Air Intake Shaft ("AIS") will be converted from an air intake shaft to an exhaust shaft for construction exhaust only, while the balance of the underground will continue to



move exhaust air through the exhaust shaft and the filtration system. [Applicants' Exhibit 1, pg. 4: 23 - 5: 4]

51. The proposed modifications are an upgrade to the existing system. The reconfigured ventilation system has a number of benefits; 1) It will allow uncontaminated construction air to exhaust through an unfiltered AIS to help reduce particulate build-up on the roughing filters in the NRB, which will reduce the amount of harvested salt particulate that must be characterized as waste and disposed of properly; and 2) It will aid in increasing the air intake volumes, which will facilitate the resumption of concurrent mining, waste emplacement, and maintenance; and 3) It will aid in diluting gases and diesel particulate matter, which will allow more diesel equipment to be operated simultaneously while maintaining air quality and safe working conditions; and 4) It will enhance control of underground ventilation; and 5) It will increase worker safety. [Applicants' Exhibit 1, pg. 5: 4 – 20; May 17, 2021, HWB 21-02 Transcript pg. 39: 1 – 14 and 17 - 25, pg. 40: 1- 15; May 19, 2021, HWB 21-02 Transcript pg.77: 3- 18; NMED Exhibit 5, pg. 9: 1 – 15]

52. Optimizing safety, while providing maintenance and increasing operational flexibility will enhance worker safety in the following ways; 1) enhanced controls over differential pressure will effectively prevent leakage of contaminated air from the disposal circuit; and 2) enhanced controls will mitigate adverse ventilation impacts in the underground environment associated with ambient temperature and pressure changes; and 3) enhanced controls will improve ventilation dramatically especially where equipment exhaust and particulate could pose a threat to worker safety; and 4) the associated connecting drifts will provide additional storage space for underground safety infrastructure (e.g. notification systems, self-contained

breathing apparatus caches). [Applicants' Exhibit 1, pg. 6: 1 – 14: May 19, 2021, HWB 21-02 Transcript pg.79: 1 – 21; NMED Exhibit 5, pg. 9: 1 – 15]

53. The proposed modification does not change the fundamental design of the repository and does not substantially alter the Permit conditions or reduce the capacity of the facility to protect human health and the environment. [Applicants' Exhibit 1, pg. 7: 3 – 5: May 19, 2021, HWB 21-02 Transcript pg. 78: 23-25, p. 79: 1-2]

54. The proposed Draft Permit will allow the Permittees to modify the way certain components of the ventilation system are used (i.e., a downcast shaft becomes an upcast shaft, fans push air through portions of the facility in addition to pulling air through portions of the facility. [Applicants' Exhibit 1, pg. 7: 10 - 13.

55. Under the proposed Draft Permit, the ventilation processes will remain unchanged, but changes to the operating procedures for the revised ventilation system will be necessary. [Applicants' Exhibit 1, pg. 7: 13 – 15]

56. The regulations call for an explanation of why the Permit needs to be modified. The regulations do not require the applicant to justify the decision to modify the facility unless such information is important to demonstrating that the modification maintains protection of human health and the environment and is consistent with the regulations. [Applicants' Exhibit 1, pg. 8: 5 – 10; May 17, 2021, HWB 21-02 Transcript pg.51: 17 – 25, pg. 140: 12 – 23]

57. Credible evidence supports the finding that the proposed Draft permit meets all applicable regulatory requirements of the Hazardous Waste Act and the Hazardous Waste Management regulations and is protective of human health and the

environment. [May 19, 2021, HWB 21-02 Transcript pg. 78: 12 – 19; NMED Exhibit 5, pg. 10: 13 – 19]

58. In the PMR, the Permittees requested changes to the following Permit parts and attachments:

- a. Attachment A, *General Facility Description and Process Information*, Section A-3, *Property Description*;
- b. Attachment A, *General Facility Description and Process Information*, Section A-4, *Facility Type*;
- c. Attachment A2, *Geologic Repository*, Section A2-1, *Description of the Geologic Repository*;
- d. Attachment A2, *Geologic Repository*, Section A2-2a(2), *Shafts*;
- e. Attachment A2, *Geologic Repository*, Section A2-2a(3), *Subsurface Structures, Underground Facilities Ventilation System*;
- f. Attachment A2, *Geologic Repository*, Section A2-2a(3), *Subsurface Structures, Underground Ventilation System Description*;
- g. Attachment A2, *Geologic Repository*, Section A2-2a(3), *Subsurface Structures, Underground Ventilation Modes of Operation*;
- h. Attachment A2, *Geologic Repository*, Figure A2-1, *Repository Horizon*;
- i. Attachment A2, *Geologic Repository*, Figure A2-2-Shaft #5, *Spatial View of the Miscellaneous Unit and Waste Handling Facility (with Shaft #5)*;
- j. Attachment A2, *Geologic Repository*, Figure A2-9c, *Underground Ventilation System Airflow (with Shaft #5)*;

- k. Attachment A4, *Traffic Patterns*, Figure A4-4, *Typical Underground Transport Route Using E-140*;
- l. Attachment A4, *Traffic Patterns*, Figure A4-4a, *Typical Underground Transport Route Using W-30*;
- m. Attachment B, *Hazardous Waste Permit Application Part A*, Appendix B2, *Maps*, Figure B2-2, *Planimetric Map-WIPP Facility Boundaries*;
- n. Attachment B, *Hazardous Waste Permit Application Part A*, Appendix B2, *Maps*, Figure B2-2a, *Legend to Figure B2-2*;
- o. Attachment B, *Hazardous Waste Permit Application Part A*, Appendix B3, *Facilities*, Addition of Figure B3-1-Shaft #5, *Spatial View of the WIPP Facility (with Shaft #5)*;
- p. Attachment B, *Hazardous Waste Permit Application Part A*, Appendix B3, *Facilities*, Figure B3-2, *Repository Horizon*;
- q. Attachment D, *RCRA Contingency Plan*, Figure D-2-Shaft #5, *Spatial View of the WIPP Facility (with Shaft #5)*;
- r. Attachment D, *RCRA Contingency Plan*, Figure D-3, *WIPP Underground Facilities*;
- s. Attachment D, *RCRA Contingency Plan*, Figure D-5-NFB, *Fire-Water Distribution System with Building 416*;
- t. Attachment D, *RCRA Contingency Plan*, Figure D-5-Shaft #5, *Fire-Water Distribution System (with Shaft #5)*;
- u. Attachment D, *RCRA Contingency Plan*, Figure D-7, *Designated Underground Assembly Areas*;

- v. Attachment D, *RCRA Contingency Plan*, Figure D-8, *WIPP Site Evacuation Routes*;
- w. Attachment G, *Closure Plan, Introduction*;
- x. Attachment G, *Closure Plan*, Figure G-1, *Location of Underground HWDUs and Anticipated Closure Locations*; and
- y. Attachment G, *Closure Plan*, Figure G-6, *Approximate Locations of Boreholes in Relation to the WIPP Underground*.

[AR No. 190815]

#### **E. THE PERMANENT VENTILATION SYSTEM**

59. The purpose of the Permittee's PMR is to modify the permit to reflect construction of Shaft #5 and the connecting drifts, as part of the PVS. [Applicants' Exhibit 1, pg. 4: 4 – 5]

60. The final design for the PVS consists of two Department of Energy capital projects, the Safety Significant Confinement Ventilation System ("SSCVS") and the Utility Shaft (US). [Applicants' Exhibit 2, pg. 11: 7 – 8]

61. The SSCVS consists of a NFB and Salt Reduction Building ("SRB"), along with exhaust fans capable of exhausting 540,000 ACFM of filtered air. [Applicants' Exhibit 2, pg. 11: 8 – 10; May 17, 2021, HWB 21-02 Transcript pg. 204: 10 – 12]

62. Credible evidence supports the finding that the "PVS restores the WIPP underground to its pre-2014 condition..." [AR 190815, PDF p. 5]

63. The UVS airflow circuits below ground level are virtually identical between Permit Attachment Figure A2-9a (original, pre-2014 design) and Figure A2-9a-NFB (approved SSCVS design). [Permit Attachment A2, p. A2-35, 36]

64. The UVS airflow circuits above ground level between these two figures reflects replacement of the Exhaust Filter Building and above ground fans with the approved SSCVS design. [Id.]

65. Permittees' witness Farnsworth testimony supports the finding that descriptions of design features and operational advantages contained in the Class 3 PMR are of the PVS and not simply of SHAFT #5. [Tr. May 18, p. 54:21 – 57:7]

66. Permittees' witness Farnsworth further described the disadvantages of the SSCVS alone versus the PVS that included SHAFT #5. [Tr. May 18, p. 57:8–59:10]

67. These disadvantages of the SSCVS alone can be expressed as advantages of adding SHAFT #5 to complete the PVS. These advantages of adding SHAFT #5 are

- a. Reduce the amount of waste generated in the SRB by exhausting construction circuit air unfiltered out the AIS;
- b. Increase differential pressure with fans on SHAFT #5 pushing air into the underground, a safety enhancement for workers;
- c. Mitigate the NVP on the intake side of the UVS; and
- d. Keep a consistent airflow in the underground by automatically adjusting to changes in the NVP. [Id.]

68. The US project consists of Shaft Number 5, two intake fans located on the surface connected to Shaft #5, and an exhaust stack at the existing AIS. [Applicants' Exhibit 2, pg. 11: 10 – 11]

69. The design of Shaft #5 assumes that the new exhaust fans and NFB contemplated in the SSCVS will be operational. [Applicants' Exhibit 2, pg. 11: 11 – 12]

70. The NFB and Shaft #5 were designed together as integral parts of the new SSCVS. The fans were sized with the assumption and understanding that the NFB and Shaft #5 would operate in conjunction as an upgrade to the ventilation system. The NFB does have the capability of providing 540,000 ACFM of air. However, that capability was designed into the system as a defense in depth. If something were to happen in the underground that would cause WIPP to have to filter all the air, then that system would be capable of performing that function. But it is not the intent to run the system in that manner. Its intent is to run the filtration system with the shaft to provide maximum ventilation. [May 17, 2021, HWB 21-02 Transcript pg. 204: 7 - 14 and pg. 214: 9 – 17]

71. The existing UVS fans at WIPP have fixed voltage and frequency motors. Airflow is controlled manually by underground workers adjusting Inlet Vane Controls ("IVC") located on each surface exhaust fan. The intake fans at the proposed Shaft #5, along with the exhaust fans at the NFB, will be equipped with automated variable frequency drives ("VFD's"). [Applicants' Exhibit 2, pg. 5: 2 – 20]

72. Operation of the new VFD equipped intake and exhaust fans will be integrated to allow their flows to be synchronized. Synchronized intake and exhaust fans that automatically adjust to changes in NVP will mitigate the effects of NVP and enhance the operational control of the UVS. This will ensure that reliable airflow occurs throughout the facility improving the safety of underground workers. [Applicants' Exhibit 2, pg. 5: 16 – 20]

73. The automatic integrated control system for both the intake and exhaust fans is a technological advancement for the operation of the ventilation system at the WIPP facility for the following reasons:

- a. It will reduce the impacts of NVP on the UVS by controlling both intake and exhaust flow.
- b. It will provide an automated ventilation system that is more responsive to changes in conditions such as NVP by eliminating the need to manually adjust airflow.
- c. A more responsive UVS ensures the continuity of adequate airflow in the underground, thereby, maintaining and enhancing a safe environment for the underground workers.
- d. The technologically advanced system will provide efficiency by eliminating the manual manipulation that is needed on the surface with the existing system. [Applicants' Exhibit 2, pg. 14: 17 - 15: 6]

74. Intake fans located at Shaft #5 will increase the differential pressure between the Construction and Disposal circuits, which also enhances worker safety. The differential pressure assures ventilation leakage flows from the Construction circuit into the Disposal circuit (Permit Attachment A2, Section A2-2a(3), *Subsurface Structures*). A fan pushing air into the underground increases the differential pressure created by the exhaust fans that are pulling air out of the underground. This is another enhancement to worker safety that would not be available without Shaft #5. [Applicants' Exhibit 2, pg. 15: 14 – 20]

75. According to the National Academy of Occupational Safety and Health (NIOSH) hierarchy of controls for addressing hazards, engineering controls, such as



the integrated control system for the intake and exhaust fans, are preferable to administrative controls, such as the manual means used to adjust airflow that are currently in place. Therefore, the integrated control system is a more advantageous method to reduce risk to the underground workers, thereby enhancing worker safety. [Applicants' Exhibit 2, pg. 15: 9 – 13; May 17, 2021, HWB 21-02 Transcript pg. 202: 24 – 25, pg.203: 8 – 25]

76. The improved control of airflow will allow the facility to return to pre-2014 radiological event operating capacity by providing significantly increased ventilation flow, unfiltered exhaust for the construction activities, filtered exhaust for the disposal circuit, the four ventilation circuits described in the existing Permit, and the ability to provide a pressure differential that causes air to flow from areas of low potential for radioactive contamination toward areas of high potential for radioactive contamination (e.g., from the Construction circuit to the Disposal circuit). [Applicants' Exhibit 2, pg. 11: 12 – 18; May 17, 2021, HWB 21-02 Transcript pg. 201: 6 – 25, p. 202: 7 – 23]

77. With the SSCVS and Shaft #5 in operation the shafts will be configured as follows:

- a. Shaft Number 5 will be the main air intake shaft for the underground.
- b. The SHS will function as an intake shaft, supplying the majority of the intake air for the North circuit.
- c. The WS will function as the intake shaft for the Waste Shaft Station circuit.
- d. The AIS will function as an unfiltered exhaust shaft for the Construction circuit.

- e. The ES will function as the filtered exhaust shaft for the North, Waste Shaft Station and Disposal circuit exhaust air. [Applicants' Exhibit 2, pg. 11: 19 - 12: 3]

78. Two intake fans, located on the surface, will be connected to Shaft #5 via duct and a plenum. One fan will operate at a time, pushing fresh air into Shaft #5. A steel cover will be installed at the top of Shaft #5 to direct the fresh air down the shaft and into the underground. The fresh air from Shaft #5 will be used to ventilate the Construction and Disposal circuits and will also supply a portion of the fresh air for the North circuit. The Waste Shaft (WS) will continue to supply fresh air to the Waste Shaft Station circuit. The AIS will become the unfiltered exhaust shaft for the Construction circuit exhaust air. The existing Exhaust Shaft (ES) in conjunction with the SSCVS exhaust fans will continue to exhaust air from the North, Waste Shaft Station, and Disposal circuits. [Applicants' Exhibit 2, pg. 13: 1 - 8]

79. The Shaft #5 portion of the PVS design allows the salt particulate that is generated in the Construction circuit (generated by mining) to be exhausted through an unfiltered exhaust path (the AIS) while the particulate that is generated in the North, Disposal and Waste Shaft Station circuits (generated by travel and maintenance operations) is exhausted through the SSCVS, where the air is routed through HEPA filters prior to being released to atmosphere. [Applicants' Exhibit 2, pg. 13: 9 - 13]

80. With Shaft #5, the design will not only reduce the particulate build-up on the filters, as it will reduce the amount of particulate from the SRB that must be disposed of. The reduction of waste generation in the SRB and the NFB is consistent with the "resource conservation" element of RCRA, thereby, providing protection of

the environment. Additionally, reducing the amount of waste generated reduces industrial safety risks to workers as they do not have to collect, sample, or transport additional waste for disposal. This would not be possible without the Shaft #5 element of the PVS design. [Applicants' Exhibit 2, pg. 13: 13 – 20]

81. As particulate is deposited on filters, the differential pressure on the filter increases. At a pre-determined differential pressure, the filter is replaced to prevent filter failure and to keep the system operating properly. Using Shaft #5 as the unfiltered exhaust path for the salt dust laden Construction circuit exhaust is a safety measure for protecting both the worker and the environment by reducing excessive loading of filters. [Applicants' Exhibit 2, pg. 13: 22 - 14: 3]

82. The PVS design will allow for the concurrent mining (unfiltered ventilation), maintenance (either unfiltered or filtered ventilation, depending on location), and waste emplacement operations (filtered ventilation) to take place. [Applicants' Exhibit 2, pg. 14: 4 – 6]

83. At present, it is not possible to perform necessary work in the facility concurrently. The equipment used to perform mining, maintenance, and waste emplacement is primarily driven by diesel engines. Diesel engines emit harmful gases and particulate in their exhaust. Ventilation is used to both dilute and remove the exhaust from the working areas. In order to protect the underground workers, the use of diesel equipment is limited by the quantity of airflow. The PVS system, which includes Shaft #5, will provide enough ventilation to operate at pre-2014 levels while keeping the underground workforce safe from harmful gases. [Applicants' Exhibit 2, pg. 14: 6 – 13]

84. The Permit contains "Parts" which mandate the Permit conditions and environmental performance standards applicable to the facility. Shaft Number 5 and the associated connecting drifts will neither change nor impact the "Parts" (Permit conditions). [Applicants' Exhibit 2, pg. 15: 21 - 16: 1]

85. The Permit also contains "Attachments" which provide additional details pertaining to implementation of Permit conditions. The modification for Shaft #5 and the associated connecting drifts will change the relevant descriptive text, relevant figures, and introduce additional figures to various "Attachments" in the Permit. [Applicants' Exhibit 2, pg. 16: 1 - 5]

86. The new shaft and its intake fans improve worker safety by uniquely providing automatic control over natural ventilation pressures which makes the process of mitigating potential backflow from the disposal area significantly more reliable and easier to deal with. [Applicants' Exhibit 2, pg. 16: 14 - 16]

87. The new shaft will enhance the ability to meet the requirements for active disposal room ventilation airflow in Permit Part 4, Section 4.5.3.2., by assisting in providing increased airflow to the underground, thereby assuring underground workers have sufficient clean air to maintain their safety while performing their activities. [Applicants' Exhibit 2, pg. 16: 21 - 23]

88. The new shaft will reduce the generation of salt and filter waste, thereby minimizing surface waste handling and disposal activities. [Applicants' Exhibit 2, pg. 17: 5 - 6]

89. The DOE has determined that it is necessary to have a fully functioning facility with enhanced ventilation systems to ensure that operations can progress in

a manner that protects human health and the environment and provides optimal safety for its workers. [May 17, 2021, HWB 21-02 Transcript pg.177: 5 – 11]

**F. Public Notice Process of the Permit Modification Request**

90. The Permittees sent a notice of the modification request to all persons on the facility mailing list maintained by the Bureau and to the appropriate units of New Mexico and local government on August 15, 2019. [Applicants' Exhibit 1, pg. 43: 1 – 5; AR 190818]

91. On August 17, 2019, the notice of the modification request was published, in English and Spanish, in the *Albuquerque Journal*, *Carlsbad Current-Argus*, and the *Santa Fe New Mexican*. The notice commenced a 60-day public comment period on the PMR. The comment period ended on October 16, 2019. [NMED Ex. 1 at 3; AR Nos. 190818; 191019]

92. The Permittees provided evidence of the mailing and publication to the Secretary on October 16, 2019. [Applicants' Exhibit 1, pg. 43: 10 – 12; AR 191018]

93. Copies of the PMR were placed at the Bureau in Santa Fe as well as the NMED Oversight Bureau in Carlsbad and the Carlsbad Public Library. [Applicants' Exhibit 1, pg. 43: 13 – 15]

94. Permittees posted the PMR to the WIPP Information Repository. [Applicants' Exhibit 1, pg. 43: 16 – 17]

95. Public meetings were conducted to provide information of the proposed changes to hazardous waste management at WIPP. They were held in Carlsbad, New Mexico, on September 17, 2019, at the Skeen-Whitlock Building from 5 PM to 7 PM and in Santa Fe, New Mexico, on September 19, 2019, from 3

PM to 5 PM at the Courtyard by Marriott on Cerrillos Road. [Applicants' Exhibit 1, pg. 43: 18 – 23]

96. During the comment period, the Permittees submitted a clarifying comment to the PMR Overview on October 16, 2019. This comment clarified that the proposed ventilation changes in the PMR would support the construction of future disposal panels at the WIPP facility. However, it reiterated that such additional panels would be the subject of a future modification request once the necessary pre-submittal activities were completed. [Applicants' Exhibit 1, pg. 44: 3 – 7; AR 191019.14]

#### **G. The Bureau's Administrative and Technical Review**

97. The Bureau's administrative and technical review of the PMR was undertaken to ensure that the Permittees met the regulations and bureau staff doublechecked to see if permit conditions were impacted and the Permittees followed the proper classification. [May 19, 2021 Tr. 82:14-21; 83:3-4]

98. The NMED issued an administrative completeness determination for the PMR on October 28, 2019. [Applicants' Exhibit 1, pg. 44: 8 – 9; AR 191028]

99. On December 6, 2019, the Bureau issued a Technical Incompleteness Determination for the PMR and requested clarification and additional information. [NMED Ex. 1 at 3; AR No. 191203]

100. The Permittees responded to the Bureau's request for clarification information on January 21, 2020. [NMED Ex. 1 at 3; AR No. 200114]

101. The Bureau determined that the PMR would not result in any changes that modify any of the current Permit conditions. [NMED Ex. 5 at 8]

102. On June 12, 2020, the Bureau determined that the PMR was technically complete and issued a Draft Permit. In deciding whether to issue the Draft Permit, the Bureau reviewed and considered the Permittee's January 21, 2020, response, the response to the January 25, 2019 Information Request, and public comments received. [NMED Ex. 1 at 3-4; NMED Ex. 5 at 8; AR Nos. 200606; 200114; 190301; 191203; 191019]

#### **H. Public Notice Process for the Draft Permit**

103. The Bureau issued the Public Notice on June 12, 2020, seeking public comment on the Draft Permit and announcing the opportunity to request a public hearing. The Bureau expanded the opportunity for public participation by announcing the start of a 60-day public comment period which ended on August 11, 2020. [NMED Ex. 1 at 4-5; AR No. 200607]

104. The NMED issued the Fact Sheet dated June 12, 2020, entitled "Notice of Intent to Approve a Class 3 Modification to Excavate a New Shaft and Associated Connecting Drifts at the Waste Isolation Pilot Plant Carlsbad, New Mexico". [Applicants' Exhibit 1, pg. 45: 8 - 10; AR 200608]

105. On June 3, 2020, the Bureau arranged for the notice of the Draft Permit be published on June 12, 2020 in the *Carlsbad Current-Argus*, a daily newspaper published in the area where the WIPP Facility is located, and in the *Albuquerque Journal*, a newspaper of general circulation in the state. Although the Bureau requested publication of the notice in the *Carlsbad Current-Argus*, the newspaper did not proceed with publication for reasons unknown. The failure of the *Carlsbad Current-Argus* created a deficiency under 20.4.1.901(C)(3) NMAC, which

requires “publication of a notice in a newspaper of general circulation.” [NMED Ex. 1 at 5-6; AR No. 200607.1]

106. Although the *Carlsbad Current-Argus*, did not publish the notice on June 12, 2020, the paper did publish an article on July 8, 2020, announcing the 60-day comment period and opportunity to request a hearing, and provided the Bureau’s address for submitting comments. [NMED Ex. 1 at 6; AR No. 200607.1]

107. The Bureau remedied the deficiency of notice in the *Carlsbad Current-Argus* when it published the Public Hearing Notice on March 18, 2021 which referenced the June 12, 2020 Public Notice and extended the comment period to the close of the public hearing. Testimony supported the finding that the deficiency was cured because the March 18 notice provided over 60 days for the public to comment on the Draft Permit. [Ex. 1 at 6]

108. Public Service Announcements (“PSAs”), in both English and Spanish, were broadcast on June 12, 2020, on KUNM, a greater Albuquerque station, and KANW, which serves large areas of the state during morning and evening commuting hours. [NMED Ex. 1 at 6; AR No. 200609]

109. Public Notice was sent to the State Printing Office for mailout to the WIPP Facility Mailing List, which includes governmental units within the state, on June 2, 2020. The notice was mailed electronically to the applicant on June 10, 2020. [NMED Ex. 1 at 7]

110. The Bureau ensured that Draft Permit binders, containing documents pertinent to this proceeding were made available in hardcopy format at the following local information repositories on June 12, 2020.



- a. Carlsbad Public Library, 101 S. Halagueno Street, Carlsbad, New Mexico 88220;
- b. the N.M. Environment Department's Carlsbad Field Office, 406 N. Guadalupe, Suite C, Carlsbad, New Mexico 88220.
- c. Santa Fe Public Library – La Farge Branch, 1730 Llano Street, Santa Fe, New Mexico 87505; and
- d. the N.M. Environment Department's Santa Fe Field Office, 2905 Rodeo Park Drive East, Bldg. 1, Santa Fe, New Mexico 87505.

[NMED Ex. 1 at 7-8]

111. In past Class 3 PMR proceedings, the Bureau has hosted information repositories only at state offices in Carlsbad and Santa Fe. Since COVID-19-related restrictions were affecting access to these offices, the Bureau found alternate sites to host these information repositories. After exploring multiple options, the Bureau decided on local libraries as the best solution due to their ability to provide "curbside" service of the Draft Permit binders to the public. [NMED Ex. 1 at 7]

112. On June 12, 2020, the date of the notice and the start of the public comment period, curbside services were available at both the Carlsbad Public Library (starting in April 2020) and the La Farge branch of the Santa Fe Public Library (starting on May 19, 2020). [NMED Ex. 1 at 7]

113. The Bureau created door postings, two-page modified versions of the Public Notice and posted them at the following locations:

- a. the N.M. Environment Department's Carlsbad Field Office, 406 N. Guadalupe, Suite C, Carlsbad, New Mexico 88220.

- b. the N.M. Environment Department's Santa Fe Field Office, 2905 Rodeo Park Drive East, Bldg. 1, Santa Fe, New Mexico 87505; and
- c. Santa Fe Public Library – La Farge Branch, 1730 Llano Street, Santa Fe, New Mexico 87505.

[NMED Ex. 1 at 8; AR No. 200607.2]

114. These door postings were placed on the front doors of the Bureau offices in Santa Fe and Carlsbad on June 12, 2020, to direct attention to the availability of the Draft Permit at local libraries and online on the Bureau webpage, as well as to provide direction on how to submit public comment and seek further information. [*Id.*]

115. A door posting was placed outside the La Farge branch of the Santa Fe Public Library on June 30, 2020, to highlight the availability of the Draft Permit binder at that location. [NMED Ex. 1 at 8; AR No. 200607.2]

116. The Santa Fe Public Library increased public awareness of the Draft Permit by posting information about the availability of the Draft Permit on the main library Facebook page on July 24, 2020. [NMED Ex. 1 at 8; AR No. 200607.2]

117. The Draft Permit, Public Notice, Fact Sheet, an updated Public Involvement Plan, as well as many other documents associated with the PMR were posted on the Bureau webpage on June 12, 2020. [NMED Ex. 1 at 9]

118. To provide ease of access for the public, the Bureau also provided a link to the AR Index and the AR Folder, which contains all documents relevant to the Bureau's decisions regarding the PMR. [NMED Ex. 1 at 9; AR Nos. 200612; 200613]

119. The Bureau received numerous comments, both in support of and in opposition to the Draft Permit. Comments dealing with expansion, closure date, and waste type and volume were related to portions of the Permit that were not being modified by the PMR. [Applicants' Exhibit 1, pg. 45: 14 – 19]

120. No specific proposal to modify the Draft Permit was made during the public comment period. [Applicants' Exhibit 1, pg. 45: 20]

121. There were seven requests for a hearing. The Bureau moderated negotiations between the Permittees and commenters who requested a hearing on December 15, 17, and 18, 2020, to resolve issues that had given rise to opposition by those who requested a hearing. The negotiations were not successful and the requests for hearing were not withdrawn. [NMED Ex. 1 at 4; AR Nos. 200610; 201205.5]

122. Prior to the unsuccessful negotiations, the Bureau updated the Administrative Record ("AR") Index in a version dated December 11, 2020, and updated the AR Folder, accordingly, providing links on the Bureau webpage. In response to the comments given during the negotiations, the Bureau provided the updated December 11, 2020, version of the AR Index in Spanish, both in a link on the Bureau webpage and in the AR Folder. [AR Nos. 201205.3; 200613; 201205.4]

### **I. Fact Sheet and Updated Fact Sheet**

123. The original Fact Sheet, issued in English and Spanish, was made available to the public on June 12, 2020, along with the issuance of the Draft Permit. The Fact Sheet set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the Draft Permit. [NMED Ex. 1 at 9; AR No. 200608]

124. The Fact Sheet contained the following elements:

(a) a brief description of the WIPP Facility and the activity which is the subject of the draft permit;

(b) the type and quantity of wastes which are being treated, stored, and disposed;

(c) a brief summary of the basis for the draft permit conditions including references to applicable statutory and regulatory provisions;

(d) reasons why the PMR does or does not appear justified; and

(e) a description of the procedures for reaching a final decision on the draft permit, including: the beginning and ending dates of the comment period, the address where comments will be received, procedures for requesting a hearing, the nature of that hearing, any other procedures by which the public may participate in the final decision, and the name and telephone number of a person to contact for additional information. [NMED Ex. 1 at 9-10; AR No. 200608]

125. After reviewing public comments received during the Draft Permit Comment Period, June 12 – August 11, 2020, and in response to discussions held during negotiations in December 2020, a decision was made to improve upon and update the Fact Sheet for this Permit action to be available in time for the Public Hearing Notice which was issued on March 18, 2021. [NMED Ex. 1 at 10; AR No. 210316]

126. Language Services received its own section on page 7 of the Updated Fact Sheet, issued in English and Spanish, and this section is mentioned in the first paragraph on page 1, with information to direct the public should they need these services. The express availability of Spanish interpretation for the hearing was

included, as well. In response to public comment, the Updated Fact Sheet and Hearing Public Notice emphasized that the Draft Permit and associated documents were available electronically. [*Id.*]

127. A section of the Updated Fact Sheet on the Geology/Hydrology of the WIPP Facility was also included in response to public comment. [*Id.*]

#### **J. Public Notice Process for the Public Hearing**

128. On December 20, 2020, the Bureau submitted a request for a hearing determination by the Secretary. In the request, the Bureau explained that it had been unable to resolve outstanding issues with members of the public who requested a hearing, and therefore a hearing would be appropriate. The Secretary entered an Order to hold a public hearing in this matter on February 4, 2021. [Hearing Determination Req. (12/20/20); Not. of Docketing and Order of Hearing (2/4/21)]

129. The Public Hearing Notice was published in English and Spanish in the *Albuquerque Journal*, the *Carlsbad Current-Argus*, and the *Roswell Daily Record* on March 16, 2020. [NMED Ex. 1 at 12; AR No. 210315.1]

130. The notice provided the ZOOM link for accessing the virtual public hearing, as well as information on Spanish interpretation while accessing this link. [NMED Ex. 1 at 11; AR Nos. 210315; 210315.1]

131. PSAs in both English and Spanish, were broadcast on Carlsbad Public Radio (KAMQ) March 16-20, 2021, and on KUNM, a greater Albuquerque station, and KANW, which serves large areas of the state, on March 16, 2021, during morning and evening commuting hours. [NMED Ex. 1 at 13; AR No. 210317]

132. The Bureau mailed the Notice of Hearing to the WIPP Facility Mailing List, which includes governmental units within the state. The Notice first began arriving in member mailboxes on March 13, 2021. [NMED Ex. 1 at 13]

133. The Notice was mailed electronically to all parties and hearing requestors on March 10, 2021, and mailed electronically to the applicant on March 22, 2021. [NMED Ex. 1 at 13]

134. NMED Draft Permit binders, containing documents pertinent to this proceeding (the Hearing Public Notice and Updated Fact Sheet being added March 4 – 5, 2021), were available in hardcopy format at the following local information repositories through the conclusion of the Public Hearing:

- a. Carlsbad Public Library, 101 S. Halagueno Street, Carlsbad, New Mexico 88220; and
- b. the N.M. Environment Department's Carlsbad Field Office, 406 N. Guadalupe, Suite C, Carlsbad, New Mexico 88220.
- c. Santa Fe Public Library – La Farge Branch, 1730 Llano Street, Santa Fe, New Mexico 87505; and
- d. the N.M. Environment Department's Santa Fe Field Office, 2905 Rodeo Park Drive East, Bldg.1, Santa Fe, New Mexico 87505.

[NMED Ex. 1 at 13]

135. To expand public outreach, especially in the vicinity of the Facility and with the aim of reaching the Spanish-speaking community there, NMED created door postings, two-page modified versions of the Hearing Public Notice in English and Spanish. [NMED Ex. 1 at 14; AR No. 210315.2]

136. NMED reached out to Carlsbad community leaders for information on gathering places for the Spanish-speaking community in Carlsbad. The Bureau arranged for the Notice to be placed in Carlsbad City Hall, in English and Spanish, as well as on the City Hall Facebook page on March 18, 2021. [NMED Ex. 1 at 14]

137. The Notice of Public Hearing was placed at the following locations on March 17, 2021:

- a. Carlsbad Public Library, 101 S. Halagueno Street, Carlsbad, New Mexico 88220;
- b. the N.M. Environment Department's Carlsbad Field Office, 406 N. Guadalupe, Suite C, Carlsbad, New Mexico 88220;
- c. Carlsbad City Hall, 101 N. Halagueno Street, Carlsbad, New Mexico 88221;
- d. La Tienda Thriftway, 1301 S. Canal Street, Carlsbad, New Mexico 88220;
- e. San Jose Catholic Church, 1002 Debaca Street, Carlsbad, New Mexico 88220;
- f. Santa Fe Public Library – La Farge Branch, 1730 Llano Street, Santa Fe, New Mexico 87505; and
- g. the N.M. Environment Department's Santa Fe Field Office, 2905 Rodeo Park Drive East, Bldg. 1, Santa Fe, New Mexico 87505.

[NMED Ex. 1 at 14; AR No. 210315.2]

138. The Public Hearing Notice, Updated Fact Sheet, and the two Scheduling Orders were posted online on the NMED HWB webpage on March 10, 2021. [NMED Ex. 1 at 15]

139. The Administrative Record Index was updated and posted to the Bureau's webpage on May 3, 2021 in English and Spanish. [NMED Ex. 1 at 15; AR Nos. 210501; 210501.1]

**K. Public Hearing**

140. The appointed Hearing Officer conducted a pre-hearing scheduling conference with all parties present and issued a Scheduling Order on February 12, 2021, setting a week-long hearing to commence on May 17, 2021.

141. On March 11, 2020, the Governor issued Executive Order 2020-004 ("Emergency Order"), declaring a public health emergency in response to the first reported cases of COVID-19 in New Mexico. Pursuant to the Public Health Emergency Response Act, NMSA 1978, 12-10A-1 through -19 (2003), the Emergency Order applies to all political subdivisions to the extent permitted by law.

142. On March 23, 2020, the New Mexico Department of Health issued a Public Health Order temporarily closing all non-essential businesses and limiting mass gatherings. The Order applies to all public and private employers and requires that social distancing be practiced.

143. In immediate response to the Emergency Order, the Department assigned most employees to telework for the duration of the public health emergency and limited non-essential Department business that required mass gatherings. As a result of these public health orders, the Department put a temporary hold on administrative hearings until such a time as such hearings could be held in a safe manner.

144. The Hearing Officer issued The First Amended Scheduling Order, removing one provision from the original order, on March 25, 2021. This order



scheduled a hearing in this matter to be held on Zoom virtual platform commencing May 17, 2021 and continuing on subsequent days until complete. The order provided:

- a. A Notice of Intent meaning that any party that intends to present technical evidence or testimony must pre-file full written testimony with marked exhibits on or before May 3, 2021. Failure of a party to file timely and complete Notice of Intent will preclude them from presenting technical evidence or testimony at the hearing.
- b. A public comment provision stating that the Hearing Officer will accept non-technical public comment throughout the hearing.
- c. The Bureau shall prepare and send public notice for the hearing in English and Spanish no later than sixty (60) days prior to the public hearing. This time frame is above and beyond public notice as laid out in 20.1.4.200 NMAC.
- d. The hearing will be governed by 20.4.2.901 NMAC and 20.1.4 NMAC permitting procedures.
- e. The Administrative Record shall be forwarded to the Hearing Clerk no later than the date of the hearing.

145. On April 1, 2021, the Hearing Officer issued a procedural order *sua sponte* establishing deadlines for prehearing motion practice. This provided that the deadline to file an opposed motion was on or before April 23, 2021 to provide opposing parties a meaningful opportunity to file a response before the hearing.

146. On March 31, 2021, NMED submitted a motion in limine seeking to exclude irrelevant evidence from the Public Hearing pursuant to 20.1.4 NMAC. Parties

had 15-days to submit responses in opposition to the motion, and the moving party had 10-days to file a reply.

147. Recognizing the need to limit the hearing to only the conditions to be modified by the PMR, pursuant to 20.4.1.901(B)(7) NMAC, the Hearing Officer granted-in-part NMED's motion in limine on April 26, 2021. The order excluded evidence of future expansion of WIPP as irrelevant to the approval or denial of the PMR. To ensure a fair, impartial, and efficient hearing, it was necessary to exclude evidence and testimony of expansion, as expansion of the WIPP was not sought in this PMR and would be the subject of a future PMR if it were sought.

148. On May 11, 2021, the Hearing Officer issued a Prehearing Order that established the hearing procedure for public comment, order of presentation of arguments, cross-examination, and exhibits.

149. A public hearing on the merits was held on May 17, 2021, before the Honorable Gregory Chakalian, Administrative Law Judge. The hearing concluded on May 20, 2021. Present at the hearing were: Permittees, the Bureau, and all interested parties who were afforded the opportunity to present technical testimony and cross examine the technical testimony of other parties during the hearing.

150. All notices and orders of the Hearing Officer were properly and timely served to Permittees, the Bureau, and all interested parties.

151. In accordance with the Emergency Order and Public Health Order, the Public Hearing was held virtually on the Zoom platform. Around 100 members of the public attended, many offering in-person comments during the hearing. The Bureau arranged to have four Spanish language interpreters to give live interpretation both on the Zoom platform, and telephonically.

152. During each day of the Public Hearing, the Hearing Officer made announcements before the hearing began and after the lunch hour that anyone who wanted to provide general public comment should use the chat feature in Zoom and advise the hearing moderator of their wish to speak. The moderator kept a virtual sign-in sheet and members were called in the order they signed up to speak. [5/17/21 1 Tr. 132:4-140:22; 5/18/21 2 Tr. 5:15-18; 119:16-132; 5/19/21 3 Tr. 126:16-137:19; 5/20/21 4 Tr. 34:2-36:13; 156:20-161:25]

153. During the Public Hearing, members of the public were afforded the opportunity to cross-examine witnesses. After each witness was cross-examined by the parties, the Hearing Officer announced the opportunity for members of the public to cross-examine the witness. [5/5/21 1 Tr. 83:8-89:20; 111:18-113:19; 188:19-190:17; 5/19/21 2 Tr. 68:11-69:19; 106:22-110:19; 179:20-184:8; 5/20/21 3 Tr. 93:1-93:21; 180:13-181:1]

154. In addition, the record was kept open until 5:00 pm MDT on May 20, 2021, for the submission of additional written public comments. [5/20/21 4 Tr. 201:25-202:3]

155. The Office of Public Facilitation received written general comment before and during the hearing and sworn general comment during the hearing. Approximately twenty-five persons voiced their support for the PMR and approximately ninety-one persons were opposed. The comments in support were centered around increased mine ventilation improving workers' safety. The comments opposed centered around impermissible expansion and are fully considered in "III. Conclusions of Law" section titled "F. Counterarguments."

**L. Concerns of the Opposing Parties Regarding Access to Information by Spanish Speakers**

156. Bureau staff testified at hearing that Spanish-language versions of the “public notice for the draft permit, as well as the hearing public notice, and the . . . updated fact sheet” as well as the Administrative Record Index were available on the Bureau’s website. Bureau staff further testified that the Bureau’s policy of translating public notice documents into Spanish was instituted in 2014. [5/18/21 2 Tr. 150:12-16; 152:19-25-153:1-3]

**M. Closure of Shaft #5**

157. The geology and stratigraphy present at the WIPP Shaft #5 location is consistent with the geology and stratigraphy found elsewhere in the underground. In fact, core hole comparisons between the AIS and Shaft #5 are almost identical. [Applicants’ Exhibit 3, pg. 12: 13 – 20]

158. The geologic conditions at the Shaft #5 location are virtually identical to those present at the WIPP AIS. Geologic units encountered at the Shaft #5 correlate with those observed in the AIS. The geo-mechanical and hydrologic conditions present at the Shaft #5 are like those present at the AIS. Because of these similarities, the current WIPP shaft closure design found in Permit Attachment G2 will be appropriate for the Shaft #5. [Applicants’ Exhibit 3, pg. 11: 18 – 22]

159. The memorandum provided by Sandia Laboratories evaluated scoping calculations that verify that the closure plan currently in place for existing shaft structures is appropriate for Shaft #5 as well. [Applicants’ Exhibit 2, Attachment 2-A, pg. 6]

160. The current Permit contains an estimated closure date of 2024 in Attachment G. This was the expected closure date calculated at the time of the original permit. That date was assumed based on expected through-put rates,

expected construction rates, and expected operations. The current Permit also states more definitively that that date could be extended or retracted depending on several factors, such as the availability of waste from the generator sites.

Additionally, Attachment G states that the end of the mission will be – when the facility reaches its statutory limit of 6.2 million ft<sup>3</sup> (175,564 m<sup>3</sup>) of TRU mixed waste. or when the Department of Energy identifies that there’s no more waste to send to the facility. As a result, the estimated facility closure date of 2024 is a transitional estimation not a hard closure date. [May 17, 2021, HWB 21-02

Transcript pg. 60: 13 – 25, pg. 61: 1 – 6 & 13 - 17, pg. 95: 16 – 25, p. 96: 1 – 9]

### **III. CONCLUSIONS OF LAW**

1. Upon a determination by the secretary that the applicant has met the requirements adopted by the Environment Improvement Board pursuant to NMSA 1978, § 74-4-4, the secretary may issue a permit or a permit subject to any conditions necessary to protect human health and the environment for the facility. NMSA 1978, § 74-4-4.2.C.

2. The Hearing Officer shall decide each matter in controversy by a preponderance of relevant and reliable evidence pursuant to 20.1.4.400(A)(3) and 20.1.4.400(B)(1) NMAC.

3. The Permittees have the burden to prove that the PMR should be granted and not denied. The Bureau has the burden of proof for any challenged conditions of the PMR. Any person who contends that the PMR is inadequate, improper, or invalid, or who proposes to include a permit condition has the burden of to present an affirmative case on any challenged conditions pursuant to 20.1.4.400(A)(1) NMAC.

4. The PMR and the process for considering the PMR is governed by 20.4.1.900-20.4.1.901 NMAC.

5. The Class 3 PMR was filed on August 15, 2019, in accordance with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)).

6. The PMR described the exact changes to be made to the Permit conditions and supporting documents referenced by the Permit pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(1)(i)).

7. The PMR identified the modification as a Class 3 modification in accordance with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(1)(ii)).

8. The PMR satisfies the requirement to show why the modification is needed in accordance with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(1)(iii)).

9. The PMR provided the applicable information required by 20.4.1.900 NMAC (incorporating 40 CFR § 270.13 through 270.22, 270.62, 270.63, and 270.66).

10. The Bureau's determination that the PMR qualified as a Class 3 PMR was appropriate was reasonable and in accordance with State and federal regulations under 40 CFR §. 270.42(d)(2)(iii).

11. The Bureau's administrative and technical review were thorough, complete, and sufficient to support the determination that the PMR was administratively and technically complete under 20.4.1.901(A)(1) NMAC; 40 CFR §. 270.13-270.22; 270.62; 270.63; 270.66.

12. The Draft Permit was issued in accordance with State and federal regulations under 20.1.4.900 - 20.1.4.901 NMAC.

13. The Bureau has met the regulatory standards regarding public notice of the Draft Permit in accordance with 20.4.1.901(A)(3)-20.4.1.901(C)(3) NMAC.

14. The Bureau has met the regulatory standards as to publishing public notice of the Fact Sheet under 20.4.1.901 NMAC.

15. Consistent with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)), the PMR included a regulatory crosswalk to demonstrate that the appropriate parts of the regulations were addressed.

16. The Permittees complied with the procedural requirements related to notice and hearing for a Class 3 permit modification request.

17. Consistent with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(2)) the Permittees sent a notice of the modification request containing all the required information to all persons on the facility mailing list maintained by the Secretary and to the appropriate units of New Mexico and local government on August 15, 2019.

18. The Permittees published this notice in major local newspapers of general circulation including the Carlsbad Current Argus, Albuquerque Journal, and Santa Fe New Mexican, on August 17, 2019, pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(2)).

19. The Permittees provided sufficient evidence of the mailing and publication to the Secretary on October 16, 2019, pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(2)).

20. Copies of the PMR were placed at the Hazardous Waste Bureau in Santa Fe as well as at the NMED Oversight Bureau in Carlsbad and the Carlsbad

Public Library, pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(3)).

21. In addition to the location of the hard copies, the Permittees posted the PMR to the WIPP Information Repository pursuant to Permit Part 1, Section 1.14.2.

22. Public meetings were conducted pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(4)), to provide information on the proposed changes to hazardous waste management at the WIPP facility.

23. A public comment period ran from August 15, 2019, until October 16, 2019, consistent with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42(c)(5)).

24. The PMR is fully compliant with the applicable portions of the New Mexico Administrative Code and the Code of Federal Regulations.

25. The Atomic Energy Act ("AEA"), as amended by the Department of Energy Organization Act grants DOE the responsibility and authority to manage radioactive materials including radioactive waste.

26. The AEA defines the scope of DOE's authority to manage radioactive wastes that are not regulated by the Nuclear Regulatory Commission (NRC).

27. According to the DOE and U.S. Environmental Protection Agency (EPA) guidance documents pertaining to mixtures of radioactive and hazardous waste, the AEA governs the radioactive portion of the mixed waste, and the hazardous waste portion is subject to regulation under RCRA.

28. The WIPP LWA, Public Law 102-579, as amended by Public Law 104-201, defines the responsibilities of the EPA with regard to the WIPP Project. The LWA grants EPA responsibility, through the certification and re-certification process



codified in Title 40 of the Code of Federal Regulations Part 194, to determine if the DOE performance assessment of the WIPP facility complies with the EPA radioactive waste disposal standards set forth in 40 CFR Part 191, Subparts B and C.

29. The changes proposed in the PMR are consistent with DOE responsibility to manage the waste in a manner that ensures that the mission of the WIPP facility is fulfilled while preserving the health and safety of the workers and the public and protecting the environment.

30. The DOE is required to comply with the applicable provisions of the Federal Solid Waste Disposal Act as amended by RCRA. The NMED, pursuant to its authority to implement RCRA, has regulatory authority over the hazardous waste portion of TRU mixed waste.

31. The EPA has authorized NMED to implement a hazardous waste program equivalent to the federal program under NMSA 1978 § 74-4-1.

32. The NMED has been granted the authority by EPA to regulate hazardous wastes, including the hazardous components of radioactive mixed wastes, in a manner consistent with the federal RCRA program.

33. Evidence pertaining to future expansion of the WIPP facility not included in the Draft Permit was deemed irrelevant and has no evidentiary weight on the approval or denial of this PMR under 20.4.1.901(B)(7) NMAC providing "In a permit modification under this section, only those conditions to be modified shall be reopened. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit."

34. Approval of the PMR will maintain protection of human health and the environment. 42 U.S.C.A § 6902 (a)(4).

35. The Bureau met the regulatory standards as to public notice of the public hearing under 20.4.1.901 NMAC; 20.1.4.200(C)(2) NMAC.

36. The Public Hearing in this matter was conducted appropriately and was held in accordance with the Order for a public hearing entered by the Secretary of Environment. 20.1.4.200(A)(1) and (5) NMAC; 20.4.1.901(F) NMAC.

37. The Public Hearing was held in accordance with the Department's Permit Procedures and provided sufficient opportunity for public participation. 20.1.4.200 NMAC; 20.1.4.300(B)(2) NMAC; 20.1.4.400(B)(2) NMAC; 20.4.1.901(F)(5)(C) NMAC.

38. The subject matter of the Public Hearing was appropriate under 20.1.4.901(B)(7) NMAC.

39. The virtual venue of the Public Hearing in this matter was appropriate and complied with the standing public health orders under NMSA 1978, § 74-4-4.2(H) (2006); 20.1.4 NMAC; Executive Order 2020-004; and the March 24, 2020 Public Health Order.

40. The public process for consideration of the PMR complied with the applicable requirements of 20.1.4 NMAC.

41. The public was given a reasonable opportunity to present technical and non-technical testimony and to cross-examine each witness presenting testimony.

42. The Department and the Office of Public Facilitation provided a meaningful opportunity for all members of the public including those with limited English proficiency to comment and participate in the three-day public hearing.

43. Credible evidence supports the conclusion that Shaft #5 can be closed in accordance with existing WIPP closure plans in a manner that is protective of human health and the environment.

44. No credible evidence supports denial of the PMR for the reasons outlined in NMSA 1978, § 74-4-4.2.D.

45. Opposing parties failed to provide credible relevant evidence sufficient to support their respective burdens to prove that any condition of the Draft Permit is inadequate, improper, or invalid, or that this PMR should be denied.

20.1.4.400(A)(1) NMAC.

#### **F. Counterarguments**

46. The argument was made that the NFB is good enough to provide ventilation while protecting the environment, so the proposed enhancements are unnecessary. Credible evidence was presented that the NFB is only one component of the permanent ventilation system and is designed to work in conjunction with the proposed Shaft #5. More than an increase in airflow provided by the NFB is needed to address the mission and operation needs of WIPP. Shaft #5 will reduce the salt particulate build-up on the filters, increasing the useful life of the filters and limit the amount of particulate from the SRB that must be disposed. Thus, the reduction of waste generation in the SRB and NFB is consistent with the resource conservation element of the RCRA, providing protection of the environment.

47. The argument was made that Permittees have not provided sufficient justification for "why the modification is needed" under 40 CFR § 270.42(c)(1)(iii) (*accord* 20.4.1.900 NMAC). For example, SRIC asserts that "Permittees have misrepresented the need for the new shaft and associated drifts, which are not

needed for ventilation of the original WIPP design of four shafts and eight (plus potentially two more, comprised of access drifts) underground panels, nor for the original WIPP designed as augmented by the Safety Significant Confined Ventilation System. This argument ignores contrary evidence that because of a 2014 radiological event, contamination of portions of the WIPP underground facility and the existing surface-mounted ventilation and exhaust systems forced a reduction in the ventilation capacity. Consequently, the filtration system, as modified after the event can accommodate only a small percentage of the original airflow and was not intended to support the normal underground operations of simultaneous mining, maintenance, and waste emplacement. Permittees persuasively rebutted this assertion, arguing that the Permittee must show why a modification to the language of their permit is needed, and that the PMR should be approved so long as the modified permit maintains its protection of human health and the environment.

48. The argument was made that the PMR constitutes an expansion of the facility. For example, SRIC argues “[t]he DOE is seeking to expand the underground disposal capacity of the WIPP nuclear waste repository beyond its legal limit, using a permit modification that employs a subterfuge.” However, the Draft Permit does not address added capacity to store waste, and no credible relevant evidence was presented to support this assertion. Permittees have persuasively rebutted this argument by demonstrating the purpose of the Class 3 PMR does not add new disposal units, authorize an increased volume of waste, or change the type of waste authorized at the facility. Moreover, the mission of WIPP is to dispose of 6.2 million cubic feet of TRU waste in a manner protective of human health and the environment.

49. The argument was made that the installation of Shaft #5 is unnecessary because the closure of the WIPP facility was estimated to begin in 2024. Credible evidence supports the conclusion that the estimated closure date calculated at the time of WIPP's inception (2024) does not constitute a hard deadline in fact, and that there are other benefits of the new ventilation system beyond the initiation of closure of the facility (it is estimated that it will take ten to fifteen years for the facility to be completely shut down).

50. The argument was made that Permittees were not being truthful about why the modification is necessary, and that their certification cannot be accepted. Permittees' witnesses testified extensively on the issue of need and were cross-examined at length, and their testimony was found to be truthful and consistent.

51. The argument was made that the Temporary Authorization threatens to prejudice the result of this PMR. This assertion by SRIC is not based on evidence admitted during the hearing. Moreover, the Hearing Officer ruled that the separate and distinct Temporary Authorization process was not relevant to the approval or denial of the PMR, and that evidence submitted regarding the Temporary Authorization in pre-hearing submissions or during the hearing would be considered an offer of proof.

52. The argument was made that Shaft #5 and associated drifts is an illegal expansion of the WIPP footprint as originally contemplated under the "C&C Agreement" and therefore, violates the "social contract" with New Mexicans. As asserted by SRIC, "[t]his fifth shaft increases the underground footprint of WIPP. Regardless of what comes after that, it increases the original footprint of WIPP, and a permit from the Environment Department does not qualify as a modification of

the C&C Agreement.” The public hearing on the PMR and the Hearing Officer’s report, and recommended decision is the not appropriate forum to litigate these issues.

53. The argument was made that “the addition of Shaft #5 to the PVS does little or nothing to “restore” the WIPP underground to its pre-2014 condition. It is the SSCVS alone that is both necessary and sufficient to accomplish that goal.” Zappe, however acknowledges that the “addition of Shaft #5 to the PVS does provide several enhancements to the UVS due to the addition of Shaft #5 as in intake shaft and an unfiltered exhaust path through the existing AIS, but those contributions pale in comparison to what the SSCVS accomplishes.” This argument presumes that restoration of the pre-2014 condition is the only justification to support approval of the PMR. Both the Bureau and Permittees submitted credible evidence to support the conclusion that Shaft #5 is an essential part of the PVS and that the benefits of Shaft #5 are synergistic with the SSCVS and provide mine workers an environment protective of human health and welfare.

54. The argument was made that the PMR should be denied because “[t]he public participation process for this PMR was defective from beginning to end and did not meet the requirements of RCRA, the Civil Rights Act, the New Mexico Hazardous Waste Act, the state and federal executive orders, or the implementing regulations. For these reasons, the NMED Secretary must deny the PMR and the Draft Permit.” This argument is not persuasive considering the credible evidence demonstrating substantial compliance with 40 CFR §. 270.42 and the Department’s rules and regulations related to public notice. Finally, CCNS/Reade provide no authority for the drastic remedy of denial of the PMR.

## **RECOMMENDED FINAL ORDER**

A draft Final Order consistent with the recommendations above is attached and incorporated by reference.

Respectfully submitted,

**Gregory  
Chakalian**

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GREGORY ARA CHAKALIAN,  
Administrative Law Judge,  
Office of Public Facilitation

## Certificate of Service

I hereby certify that on September 14, 2021 a copy of the foregoing **Hearing Officer's Report and Recommended Decision** was emailed to the persons listed below. A copy will be mailed first class upon request.

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