

COPY

STATE OF NEW MEXICO

BEFORE THE SECRETARY OF THE ENVIRONMENT

No. HWB 18-19(P)



**NEW MEXICO ENVIRONMENT DEPARTMENT)
HAZARDOUS WASTE BUREAU)
CLASS 3 PERMIT MODIFICATION REQUEST:)
CLARIFICATION OF TRU MIXED WASTE VOLUME)
REPORTING, PERMIT MODIFICATION TO THE)
WIPP HAZARDOUS WASTE FACILITY PERMIT)
NO. NM4890139088-TSDF)**

**PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW,
AND CLOSING ARGUMENT ON BEHALF OF
SOUTHWEST RESEARCH AND INFORMATION CENTER**

The following closing argument, proposed findings of fact and conclusions of law, based upon the hearing held on October 23-25, 2018, in Carlsbad, are submitted on behalf of Southwest Research and Information Center (“SRIC”), pursuant to 20 NMAC § 20.1.4.500.B and the Order of the Hearing Officer dated November 23, 2018.

Factual background

The Permittees, the U.S. Department of Energy (“DOE”) and Nuclear Waste Partnership (“NWP”), have filed a request to modify several sections of the Hazardous Waste Act (§ 74-4-1 *et seq.* NMSA 1978) (“HWA”) permit (the “Permit”) for the Waste Isolation Pilot Plant (“WIPP”) to enable DOE to calculate the volume of transuranic (“TRU”) waste emplaced at WIPP separately from, and without regulation by, the New

Mexico Environment Department (“NMED”), which has been determining and recording the volume of waste emplaced at WIPP consistently since the Permit was issued in 1999.

This Permit Modification Request (“PMR”) can have no legitimate purpose and no legitimate result. The quantities that DOE would calculate as “waste emplaced” are not the measurements that Congress intended or authorized when it enacted an absolute limit of 6.2 million ft³ for transuranic waste disposal at WIPP. Neither are they the volume measurements of all of the waste, including volatile organic compounds, administered by NMED, which issued the Permit and is the regulator under the Permit. DOE’s calculations would significantly understate the waste volume that counts against the statutory limit. The next step, DOE admits, will be one or more additional Permit Modification Requests, seeking leave to excavate more panels with more waste rooms, to accommodate the supposed additional waste capacity that DOE’s unlawful calculations have created. Kehrman prefiled testimony at 3 and 16; 10/23/18 Tr. 53, ll. 1-24; 215, ll. 15-19; 217, ll. 9-10 (Kehrman); 10/24/18 Tr. 175, ll. 3-9 (Maestas).

This is just the start. DOE wants vast additional disposal space for more than TRU waste, and this PMR is a DOE device to circumvent the congressional limitations and obtain more space. DOE has wasted the available space in Panels 1 through 6 of the original WIPP design, filling them to only 81% of the waste for which space was available, and has emplaced 54% of the capacity limit. SRIC Ex. 57. Now DOE is beset by new demands to dispose at WIPP of such unauthorized waste forms as surplus Plutonium, high-level waste, and commercial waste. Forces within and without the DOE press for the enlargement and continuation of WIPP beyond the limited demonstration and disposal facility that Congress authorized. DOE’s response is this illegitimate PMR,

by which DOE seeks to muscle aside NMED, the lawful regulator of WIPP's disposal capacity. The request should be denied.¹

This is not a simple request, because DOE's motives and plans have not been fully disclosed. But there are two basic legal issues that must be addressed: First, what did Congress mean when it limited WIPP's disposal capacity to no more than 6.2 million ft³ of transuranic waste? Second, what agency or agencies are authorized to answer that question?

Some history is helpful, because it illustrates how WIPP is regulated and how the waste volume has historically been calculated.

a. WIPP Authorization Act

In 1972, the Atomic Energy Commission ("AEC") announced that it would operate WIPP as the nation's first geologic repository. Hancock prefiled testimony at 2. At that time, there was no Resource Conservation and Recovery Act. 42 U.S.C. § 6921 *et seq.* ("RCRA"). The AEC had broad authorities over nuclear materials and activities.

WIPP was authorized in 1979 in Public Law No. 96-164, § 213. Therein, Congress authorized WIPP "to demonstrate the safe disposal of radioactive waste resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission." The law specifically designates WIPP as a "pilot plant," and states that its mission is to "demonstrate the safe disposal." AR 180121.08, § 213(a). Both of those provisions clearly indicate that WIPP was not the sole disposal site for all TRU waste. Hancock prefiled testimony at 1.

¹ SRIC agreed to the negotiated change to Section 3.3.1.8. Maestas prefiled testimony at 11 and Ex. 3. However, that change can be made in a future modification request that would not require class 3 procedures.

Regarding New Mexico's authority, the 1979 Authorization Act provides:

“(b)(1) In carrying out such project, the Secretary shall consult and cooperate with the appropriate officials of the State of New Mexico, with respect to the public health and safety concerns of such State in regard to such project and shall, consistent with the purposes of subsection (a), give consideration to such concerns and cooperate with such officials in resolving such concerns. The consultation and cooperation required by this paragraph shall be carried out as provided in paragraph (2).

(2) The Secretary shall seek to enter into a written agreement with the appropriate officials of the State of New Mexico, as provided by the laws of the State of New Mexico, not later than September 30, 1980, setting forth the procedures under which the consultation and cooperation required by paragraph (1) shall be carried out. Such procedures shall include as a minimum –

- (A) the right of the State of New Mexico to comment on, and make recommendations with regard to, the public health and safety aspects of such project before the occurrence of certain key events identified in the agreement;
- (B) procedures, including specific time frames, for the Secretary to receive, consider, resolve, and act upon comments and recommendations made by the State of New Mexico; and
- (C) procedures for the Secretary and appropriate officials of the State of New Mexico to periodically review, amend, or modify the agreement.”

AR 180121.08, Section 213(b).

b. Consultation and Cooperation Agreement

No consultation and cooperation (“C&C”) agreement was signed by September 30, 1980, the statutory deadline. In 1981, the State of New Mexico sued DOE in Federal District Court. Civil Action No. 81-0363 JB (D.N.M.). On July 1, 1981, after discussions, the State Attorney General and U.S. Attorney filed a Joint Motion to Stay All Proceedings, with a Stipulated Agreement, which was approved that day by the court. AR 180706.02, pp. 9-16 of PDF. As part of the Stipulated Agreement, the Governor of New Mexico and DOE Secretary signed a C&C Agreement, pursuant to the WIPP Authorization Act. AR 180706.02, pp. 22-30 and 51 of PDF. The Stipulated Agreement states:

This consultation and cooperation agreement shall be a binding and enforceable agreement between the Department of Energy and the State of New Mexico and shall expressly provide that it does not constitute a waiver by the State of any right it may have to judicial review of federal agency actions with respect to the WIPP project. at 3.

The C&C Agreement has since been modified. AR 180706.02, pp. 32-45 and 53-57 of PDF. The First Modification of 1984 states the volume limitation of 250,000 ft³ (equal to 7,080 m³) of remote-handled (“RH”) TRU waste (AR 180706.02, p. 35 of PDF) (November 30, 1984); the Second Modification of 1987 incorporates the volume limitation of 6.2 million ft³ of TRU waste. AR 180706.02, p. 56 of PDF (August 4, 1987).²

c. The WIPP Land Withdrawal Act

DOE wanted to open the facility in 1988, and WIPP land withdrawal bills were introduced in Congress starting in 1987. Five years of debate followed, addressing issues such as the requirements that WIPP would meet before receiving wastes, the capacity of the facility, and the state and federal regulatory and oversight authorities. Hancock

² Separately, in 1982, Congress passed the Nuclear Waste Policy Act (NWPA) of 1982 (Public Law 97-425),

“An Act to provide for the development of repositories for the disposal of high-level radioactive waste and spent nuclear fuel, to establish a program of research, development, and demonstration regarding the disposal of high-level radioactive waste and spent nuclear fuel, and for other purposes.” SRIC Ex. 51, enactment heading.

The NWPA did not apply to WIPP, because the WIPP facility was authorized to be exempt from Nuclear Regulatory Commission (“NRC”) licensing, and disposal was limited to transuranic waste, while any repository for high-level defense waste would be licensed by the NRC. SRIC Ex. 51, Section 8(b)(3). In 1987, Congress amended the NWPA to designate a single high-level waste and spent fuel repository. Congress had discussed whether that facility should be WIPP, but again determined that WIPP would not be that facility, and instead designated Yucca Mountain, Nevada, as the repository. SRIC Ex. 51, Section 160.

prefiled testimony at 3. The House passed the LWA on October 5, 1992, and the Senate did so on October 8, 1992. AR 180706.03. The LWA clearly states:

CAPACITY OF WIPP.—The total capacity of WIPP by volume is 6.2 million cubic feet of transuranic waste. AR 180706.03, § 7(a)(3).

Thus, Congress again determined that WIPP's mission was to demonstrate safe disposal of a specific amount of TRU waste—not more than that, and not all TRU waste.

Hancock prefiled testimony at 4. One of the bill's co-sponsors, Rep. Peter Kostmayer, emphasized WIPP's limited role:

Whether we are going to generate more nuclear waste is not the question. The question is we have got to get rid of the material we have. This facility will take only 20 percent of all the waste that we have. Still 80 percent will remain unburied. We have to deal with that.

AR 180914.32B at 32552 (c. 2).

Congress understood that the total capacity limit was based on container volumes.

Senate Report 102-196 on S 1671, by the Senate Energy and Natural Resources Committee, specifically states: “According to DOE's current plans, a total of 4,525 55-gallon drums of transuranic waste would be used during the experimental program.”

SRIC Ex. 8 at 27, AR 180402.34Z. The House bill (HR 2637) reported by the House Armed Services Committee, stated the volume limit both in cubic feet and in drums:

CAPACITY OF THE WIPP.—The total capacity of the WIPP by volume is 6.2 million cubic feet of transuranic waste. Not more than 850,000 drums (or drum equivalents) of transuranic waste may be emplaced at the WIPP. SRIC Ex. 9B at 10, AR 180402.34BB, § 9(a)(3).

House Report 102-241, Part 1, from the House Interior and Insular Affairs Committee, included capacity limits of 5.6 million ft³ of contact-handled (“CH”) waste and 95,000 ft³ of RH waste. (§ 7(a)). Preliminary introduction of waste for the Test Phase was limited to no more than 4,250 55-gallon drums. SRIC Ex. 9A at 16, 18, AR 180402.34AA.

House Report 102-241, Part 3 from the House Energy and Commerce Committee included a dissent, opposing the capacity limits “of not more than 5.6 million cubic feet of contact-handled transuranic waste and 95,000 cubic feet of remote-handled transuranic radioactive waste in WIPP” (§ 7(a)) and Test Phase limits of 4,250 barrels or 8,500 barrels of waste. SRIC Ex. 9C at 42, AR 180402.34CC.

The capacity limits for the Test Phase (which was deleted in 1996) and the entire facility were based on the volume of 55-gallon drums (or drum equivalents): 850,000 drums times 7.3 cubic feet (55-gallon drum volume) equals 6,205,000 ft³. Mr. Kehrman, witness for the Permittees, concurred in this. 10/23/18 Tr. 168, ll. 10-20 (Kehrman). The LWA also confirms the State’s authority under the Solid Waste Disposal Act. LWA § 9(a)(1)(C), AR 180706.03.³ In addition, the LWA affirms the C&C Agreement and states that it may only be modified by express language. LWA § 21.

Don Hancock of SRIC was present in Washington, D.C., during the discussions about the LWA and testified five times before congressional committees of jurisdiction. 10/25/18 Tr. 180, ll. 3-6 (Hancock). He stated that the capacity of the repository was a major issue in the negotiations. 10/25/18 Tr. 181, ll. 13-17 (Hancock). Congress understood that WIPP would not be the sole repository for transuranic waste. 10/25/18 Tr. 181, ll. 1-2 (Hancock). Also, Congress discussed waste capacity in terms of containers. 10/25/18 Tr. 181, ll. 16-21 (Hancock). Counsel for NMED inquired whether the elimination in the final LWA of container numbers, which had been specified in

³ SRIC and other parties had advocated and litigated for that authority. In *State of New Mexico Ex. Rel. Udall v. Watkins* and *Environmental Defense Fund v. Watkins*, the State, SRIC, and other parties argued that RCRA applied to the WIPP Test Phase, a position that would prevent waste emplacement without a permit. The District Court granted summary judgment in favor of that argument. 783 F. Supp. 633 (D.D.C. 1992). That decision was reversed by the Court of Appeals. 969 F.2d 1122 (D.C.Cir. 1992). Hancock prefiled testimony at 5.

committee bills, meant that Congress intended “to not containerize the capacity.” Mr. Hancock stated:

Absolutely false. And I know that for a fact, because as I say, I was there in the discussions about the drafting of the bill, and the discussion was, do we need the drum equivalents or not, and it was concluded they didn’t need them.

10/25/18 Tr. 232, ll. 15-19 (Hancock). The C&C Agreement had been signed in 1981, and by 1991 the Second Modification (1987) had also been signed, which recited the volume limit of 6.2 million ft³, a fact of which Congress was also aware. 10/25/18 Tr. 182, ll. 17- 183, l. 5; 184, ll. 19-185, l. 7 (Hancock). The application of RCRA was also important to Congress, since litigation had already affirmed RCRA’s application, and the Federal Facility Compliance Act (Public Law No. 102-386, AR 180402.48C) was also before Congress. 10/25/18 Tr. 187, ll. 3-11 (Hancock). As for the idea that the “LWA volume” could be a different amount from the “RCRA volume,” Mr. Hancock stated: “[I]t’s stunning to me for anybody to think that there’s a separation in the law between a WIPP capacity limit and a RCRA capacity limit. Everybody in Congress at the time knew that those were one and the same thing.” 10/25/18 Tr. 188, ll. 5-9 (Hancock).

d. Historical volume calculations

It is uncontroverted in the record that it has always been true that TRU waste volume at WIPP was measured by the gross internal volume of the waste container. In the Final Environmental Impact Statement (“FEIS”) of 1980, DOE stated that “The data for TRU waste presently in retrievable storage are the container volume.” SRIC Ex. 1, AR 180121.04 at E-25. The 1980 FEIS stated that the design capacity was 6.2 million ft³. SRIC Ex. 1, AR 180706.03 at 2-17. The FEIS (AR 180121.04) identified the planned waste inventory:

This EIS analyzes the alternatives for disposing of the readily retrievable waste expected to be stored in Idaho through 1990. This waste includes the 2.4 million cubic feet shown in Table 2-3 for 1986 plus an additional two-thirds of the 0.25 million cubic feet generated annually between 1986 and 1990. In addition, the WIPP would be designed to accommodate all defense TRU waste generated between 1990 and 2003. SRIC Ex. 1 at 2-18.

Those quantities add up to approximately 6.2 million ft³. 10/23/18 Tr. 168, ll.-10-20 (Kehrman). The 1981 Record of Decision, based on the FEIS, carried forward these capacity figures. SRIC Ex. 2 at 9163, c. 1, AR 180121.02.

The 1990 Final Supplement Environmental Impact Statement (DOE/EIS-0026-FS, January 1990 (“SEIS-I”)) again used the volume of the waste container as the measure of the volume of emplaced waste:

“Using a drum volume of 0.2 cubic meter gives a drum equivalent capacity of 880,000 for CH-TRU waste, about 4 percent higher than the values suggested by the commenters. This number is calculated by dividing the CH TRU waste capacity of the WIPP, 6.2 million cubic feet, by 0.2 cubic meter and 35.3 cubic feet per cubic meter. The result is then rounded up to two significant digits.” SRIC Ex. 52 at 246.

The Environmental Evaluation Group (“EEG”) had commented on the 1989 Draft SEIS-I that DOE had erroneously calculated WIPP’s capacity, by assuming that 55-gallon drums were 80 percent full, and causing WIPP’s 6.2 million ft³ capacity to be contained in “a fictitious number of drums that cannot fit into the WIPP.” Instead, the “design capacity of the WIPP is based upon the total volume of emplaced containers and not their contents.” *Ibid.* In response, in the final SEIS-I DOE dropped the 80 percent fill ratio, “because the calculations based on this assumption greatly overestimated the volume of waste to be emplaced in the WIPP.” SRIC Ex. 53 at B-3. The SEIS-I reiterates that the contact-handled (CH) waste design capacity is 6.2 million ft³. AR 180914.32C at 3-4.

To support the WIPP HWA Permit application and for other needs, DOE published a WIPP Transuranic Waste Baseline Inventory Report (“TWBIR”) in June 1994. Revision 2 (DOE/CAO-95-1121) included all DOE TRU waste. AR 180402.34G at xi. The TWBIR calculated all waste volumes in “Final Waste Form,” which was defined as the gross internal volume of the containers. SRIC Ex. 10 at 1-5; 10/23/18 Tr. 175, ll. 8-14 (Kehrman).

The 1997 Disposal Phase Supplemental Environmental Impact Statement (DOE/EIS-0026-S-2, September 1997(“SEIS-II”)) again used the volume of the waste containers to measure the volume of emplaced waste:

[T]he waste volumes used for the SEIS-II analyses are estimates of “emplaced waste volumes” (the volumes of the containers that TRU wastes would be emplaced in), not actual waste volumes inside the containers, except as noted. DOE recognizes that virtually all containers would contain some void space and that some containers may be only partially filled (for instance, to meet limits on weight or thermal power for transportation).

AR 180121.03 at 2-9.

With the RH-TRU waste volume limit at WIPP of 7,080 cubic meters (250,000 cubic feet), the volume disposed of was calculated using the capacity of the waste containers rather than the volume of the waste within the containers.

SRIC Ex. 11, AR 180121.03 at A-13, -14. DOE emphasized the conservatism of its measurements of waste volume:

CONSERVATISM OF TRU WASTE VOLUME ESTIMATES:

TRU waste inventory estimates, as used throughout SEIS-II, embody many conservative assumptions to ensure bounding analyses of maximum, reasonably foreseeable impacts. The following reflect some of the conservative assumptions.

* * *

"While the LWA and C&C Agreement include limits on the volume of TRU waste that can be emplaced, there is considerable uncertainty concerning how much of a container's volume is made up of TRU waste and how much is void

space. Many of the containers would include a great deal of void space, particularly for RH-TRU waste; the actual volume of waste in a drum or cask, therefore, may be much less than the volume of the drum or cask. For the purposes of analysis in SEIS-II, the volume of the drum or cask is used, as if the drum or cask were full without void space. .

SRIC Ex. 11 at 3-8; AR 180121.03. Thus, the SEIS-II used container volumes. AR 180121.03 at 2-9, 3-8, A-13, -14. In its annual budget requests, DOE has reported to Congress the volume of Contact-Handled (“CH”) emplaced at WIPP, compared to the LWA capacity limit. DOE’s reports have been based on the gross internal volume of the outer container, *i.e.*, the same value as is reported to NMED under the Permit. AR 180402.34H to V.

DOE is also required to report the volume of waste emplaced annually to the Environmental Protection Agency (“EPA”). These Annual Reports calculate the CH waste volumes based on the outer container volume. SRIC Ex. 55 at 17. Numerous other DOE documents use the gross internal volume of the outer container to calculate TRU waste volumes. For example, the calculation for the total volume of legacy TRU waste planned for disposal is approximately 131,000 m³, based on container volumes. AR 180402.34W at 13.

DOE’s Annual Transuranic Waste Inventory Report (“ATWIR”) shows “final form” volumes as in earlier Baseline Inventory Reports, and also “outer container volume,” which is the same as the gross internal volume of the outer container. The current (2017) Annual Inventory Report states: “In this report, CH-TRU waste volume in overpacks reflects the outer container volume and the RH-TRU waste volume in overpacks reflects the inner container volume.” AR 180402.34X at 18.

WIPP has used outer container volumes, as in the Permit, in its operating contracts, including the contract with NWP. The original NWP contract from 2012 included Programmatic Goal 3: “Complete disposition of 90 percent of the legacy transuranic waste by the end of fiscal year 2015” from the Roadmap for EM’s Journey to Excellence. AR 180402.34W at 12-13; AR 180402.34Y at C-3.

In the current PMR (AR 180121) and the Response to Technical Incompleteness Determination (AR 180706 (“TID”)), the Permittees assert that they have based waste volume on the assumption of full waste containers. (PMR at 8; TID at 6). That is not a true statement. To be accurate: waste volume was calculated based on the volume of the container. The gross internal volume of the outer container has consistently been used by DOE for calculating the volume of waste emplaced that counts against the WIPP legal capacity limit, as well as for numerous other purposes. Mr. Kehrman agreed that in performance assessments DOE had conservatively assumed that waste containers were full, but DOE personnel knew that the containers were not actually full. 10/23/18 Tr. 211, ll. 16-17 (Kehrman).

At the hearing, the Permittees offered a new argument not previously made to justify the PMR – “volume overestimates the amount of waste actually disposed by about 30 percent, due to the air space that's contained in the outermost container and the non-waste materials that are also placed into that outermost container for various purposes.” 10/23/18 Tr. 23, ll. 1-5; Tr. 48, ll. 12-14, 20-22; Tr. 59, ll. 15-17; Tr. 60, ll. 19-20; Tr. 63, ll. 22-25; Tr. 69, ll. 7-9; Tr. 76, ll. 5-8; Tr. 132, ll. 8-9; Tr. 207, ll. 16-21; Tr. 208, ll. 10-12; Tr. 209, ll. 21-22; Tr. 211, ll. 19-21 (Kehrman). As to the asserted overestimates, DOE has used ten-drum overpacks (“TDOPs”) because they make more efficient use of

the underground disposal space than other containers, including 55-gallon drums and standard waste boxes. SRIC Ex. 6 at 400, ll. 1-5 (Kehrman). Thus, some overpacks, rather than leaving empty space in the underground, allowed more waste to be emplaced in Panel 2 than could be accommodated in the design capacity by other containers. SRIC Ex. 6 at 400, ll. 6-12 (Kehrman). As a result of those efficiencies, the volume capacity of subsequent panels was increased in the Permit. SRIC Ex. 6 at 400, ll. 17-18 (Kehrman).

Mr. Kehrman also conceded that much of the air within overpacks contains waste in the form of volatile organic compounds, regulated by the Permit (Table 2.3.4), and that a significant number of waste containers were placed into TDOPs to contain that waste with air that contains carbon tetrachloride. 10/23/18 Tr. 131, ll. 1-25 (Kehrman). Mr. Zappe stated: “the internal volume of the overpack will undoubtedly have an opportunity to have volatile organic compounds, which are waste, be present in that void space. That air space.” 10/25/18 Tr. 107, ll. 15-19 (Zappe). But if the PMR were approved, air contaminated with waste in overpacks would no longer be counted as waste emplaced at WIPP. 10/25/18 Tr. 108, ll. 2-8 (Zappe).

e. EPA certification pursuant to the Land Withdrawal Act

The LWA requires that EPA certify “whether the WIPP facility will comply with the final disposal regulations.” LWA § 8(c)(2), AR 180706.03. That certification is required before the DOE “may commence emplacement of transuranic waste underground for disposal at WIPP.” LWA § 7(b)(1), AR 180706.03. EPA’s 1999 certification was subject to notice-and-comment rulemaking requirements and judicial review. LWA § 8(d)(1). To show compliance with the LWA volume limit, pursuant to 40 C.F.R. § 194.24(g), DOE in its Certification Application provided EPA with waste

inventory data based on “final form” container volume. SRIC Ex. 14 at 24-97. EPA accepted the “final waste form” container volume data to demonstrate compliance with the LWA limits. SRIC Ex. 14 at 24-98; 63 Fed. Reg. 27354, 27373. The same process of submission of final waste form data and EPA approval took place in 2006, 2010, and 2017 recertifications. SRIC Exs. 17, 20, 22. Mr. Kehrman concurred that final waste form data had been submitted to and accepted by EPA. 10/23/18 Tr. 192, ll. 16- 195, l. 19 (Kehrman). *See also* 10/24/18 Tr. 150, ll. 7-11(Maestas).

f. The WIPP Hazardous Waste Act Permit

In their HWA Permit Application (1996), the Permittees included the gross internal volume of the waste containers, which were incorporated into the original Permit and remain in the current permit. AR 180914.37I, Section 3.3.1. In the PMR, Permittees acknowledge: “At the time the Permittees prepared the Part B Permit Application, the WIPP LWA limit and the HWDU [hazardous waste disposal unit] limit were considered to be the same.” AR 180121 at 7.

The LWA capacity limit of 6.2 million ft³ has always been incorporated into the WIPP Permit. The limit was included in the Permittees’ Part A application (AR 180914.37I) (Original Permit Attachment O, now Attachment B.). The capacity limit also is now included in Table 4.1.1, Attachment B, Attachment G1, Attachment G1c, Attachment H1, and Table J3. *See also* 10/24/18 Tr. 86, ll. 3-7 (Maestas).

The Permit, from its inception in 1999 to date, has approved use of overpacks for storage and disposal. 10/25/18 Tr. 104, ll. 11-24 (Zappe); Tr. 189, ll. 24-25 (Hancock). In some cases, the Permit may require use of an overpack. Attachment A1-1c(1), Attachment A1-1d(2), Attachment A1-1d(4), Attachment A1-1e(1), Attachment A2-2b,

Attachment A4-3, Attachment D-4b, Attachment D-4e, and Attachment D-4e(3). DOE also may use its management authority to use overpacks for other reasons. 10/23/18 Tr. 117, ll. 8-23; Tr. 129, ll. 22- 130, l-14; Tr. 130, l.23 - 131, l. 25 (Kehrman). The gross internal volume of those overpacks has always been the measure of waste emplaced under the Permit and the LWA. Kehrman prefiled testimony at 2; 10/23/18 Tr. 61, ll. 6-23 (Kehrman); 10/24/18 Tr. 117, ll. 1-6 (Maestas).

Throughout the 1999 WIPP Permit hearing, NMED reiterated its authorities under the HWA and the LWA. The Hearing Officer's Report (AR 180914.37T), Findings and Fact and Conclusions of Law, as adopted by the NMED Secretary in issuing the Permit (AR 180914.37W), found that NMED did have those authorities.

NMED has enforced the calculation of capacity volumes based on outer container volume. On August 8, 2011, the Permittees submitted a Class 1 modification to revise Table 4.1.1 to reflect final waste volumes in Panel 5. SRIC Ex. 32, AR 180914.32H. The Permittees erroneously reported the RH volume as "5,403 ft³ (153 m³)." NMED responded on November 9, 2011, correcting the stated volumes:

NMED changed the final volume for remote-handled (RH) waste in Panel 5 to 8,300 ft³ (235 m³) to maintain consistency with the calculations used to report the RH volume for Panel 4. In their submittal, the Permittees reported the RH volume based on the volume of the containers within the RH canisters emplaced in Panel 5. The corrected RH volume is based on the volume of the RH canisters (264 canisters * 0.89 m³ per canister = 235 m³)."

SRIC Ex. 33 at 1, AR 180914.32I.

In 19.5 years of operations—March 26, 1999 to September 29, 2018—less than 54 percent of that 6.2 million ft³ (175,564 m³) capacity limit has been emplaced at WIPP. SRIC Ex. 56⁴; 10/25/18 Tr. 192, ll. 1-8 (Hancock).

g. Current pressure to emplace waste beyond congressional authorization

Numerous current proposals, reflected in National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (“NEPA”), documents, analyze the expansion of WIPP beyond its statutory mission of disposal of a limited amount of defense TRU waste. AR 80402.34B through F. Such proposed expansions, which have not been authorized by Congress, are an apparent motivation for the present modification request. Possible additional waste includes high-level waste now stored at the Hanford Reservation, commercial waste stored at West Valley, New York, surplus Plutonium, and Greater than Class C waste. 10/25/18, Tr. 193, l. 1 -194, l. 15 (Hancock).

It has long been apparent that the Permittees’ failure to use all of the available CH TRU disposal capacity, and the failure to use available RH TRU disposal capacity, meant that the TRU waste actually disposed of at WIPP would be much less than the authorized 6.2 million ft³, even based on outer container volume. SRIC Ex. 57. In 2003, the DOE Inspector General (“IG”) reported:

If current waste emplacement practices continue, by 2020, the repository, as now configured, will not be able to accommodate 980 planned shipments of remote-handled TRU waste. The Department has recognized the potential space problem and identified some alternatives, but has not yet formally planned for the resolution of this issue.

⁴ For CH waste, 173,242 containers emplaced have 93,929 m³ of waste, and 728 containers of RH waste have 642 m³ of waste. That total of 94,571 m³ is less than 54 percent of the capacity limit. The request and the Draft Permit do not specifically discuss that fact, nor address why any change in the capacity limit nor a separate “Volume of Record” is needed, since the existing volume limits are adequate for years or even decades into the future. Hancock prefiled testimony at 10.

SRIC Ex. 58 at 1. In 2013 the DOE IG reported:

We found that while EM had made progress in meeting its operational disposal goals, it was not on track to meet its goal to dispose of 90 percent of the Department's legacy TRU waste by the end of FY 2015. In particular, EM faces a number of challenges in meeting its planned 90 percent waste disposal goal by 2015. Additionally, without further modifications to the repository or existing waste disposal practices, WIPP may not have capacity for disposal of the current RH inventory.

SRIC Ex. 59 at 1-2. In 2017, the Government Accountability Office (“GAO”) reported:

DOE does not have sufficient space at WIPP to dispose of all defense TRU waste....

- DOE’s TRU waste management plan, which includes planning for WIPP, covers a 5-year period and does not address possible expansion. Moreover, DOE’s TRU waste management plan does not include a schedule for expanding DOE’s disposal space before existing space is full.

- Expanding WIPP’s disposal space will require regulatory approval that is expected to take several years. However, DOE modeling that is needed to begin the regulatory approval process is not expected to be ready until 2024.

SRIC Ex. 60 at inside cover. Such unstated DOE motivations for the PMR do not provide a legal basis for that PMR or the Draft Permit.

h. WIPP’s unsafe operating record

A principal purpose of RCRA is protection of “human health and the environment.” 42 U.S.C. § 6901(b)(2). George Anastas, a professional nuclear engineer, environmental engineer, health physicist, and former member of the Environmental Evaluation Group (“EEG”), testified about WIPP’s recent performance from the standpoint of environmental safety and health and how that performance bears on the PMR. Mr. Anastas stated that “WIPP is suffering from a wide scope of safety deficiencies, many of which have been recurring, and are still open.” 10/25/18 Tr. 133, l. 13-15 (Anastas). He advised that, in considering the PMR, the NMED take a “holistic approach to any permit modification, including roof falls, electrical deficiencies, fire in

the underground, freezing of fire equipment, and other items identified in the Defense Nuclear Facilities Safety Board (“DNFSB”) be taken care of before any other permit modifications are put in place. Because not only are the workers placed in jeopardy, but the public is, and environment is, as well.” 10/25/18 Tr. 133, l. 21- Tr. 134, l. 5 (Anastas). *See also* 10/25/18 Tr. 171, l. 8-25, 172, ll. 12-23 (Anastas); 10/25/18 Tr. 199, l. 21 -200, l. 22 (Hancock). Mr. Anastas had concluded that “DOE and NWP do not possess the skills and commitments that would justify expanding the operations of WIPP beyond the limits contained in the Land Withdrawal Act and undertaking new responsibilities in managing the measurement and emplacement of additional new waste volume.” Anastas prefiled testimony at 3. Mr. Anastas identified the following areas of concern:

Operating incidents: Mr. Anastas stated, as is publicly known, that WIPP suffered from an underground salt truck fire and, soon after, a waste drum detonation in February 2014. Both of these incidents were closely examined by DOE accident investigation committees, which delivered extensive reports. SRIC Exs. 42, 45, 48.

The salt truck fire was caused by a failure of maintenance that led to accumulation of combustibles and the fact that the automatic fire extinguishing system had been disconnected. Anastas prefiled testimony at 10-13. Thirteen workers were treated for smoke inhalation. *id.* 11. An investigation by DOE identified causes to be the failure of the management and operations contractor to recognize and mitigate the hazard of fire in the underground, including by inspections and removal of combustible buildup. *id.* 11-12. The investigation report identified ten separate organizational failures, *e.g.*, in training, worker qualifications, emergency response execution. *id.* 12-13.

The underground detonation in a waste drum and release of radioactivity occurred on February 14, 2014. The drum lid was “blown half off.” 10/25/18 Tr. 158, ll. 7-8 (Anastas). The event contaminated 2000 feet of underground workings, and radiation blew 2150 feet farther up the exhaust shaft, partially bypassed the filter bank, and escaped to the atmosphere. Plutonium and Americium were detected in air thousands of feet from the release point. Several WIPP workers were contaminated. The cost of the detonation and its consequences was about \$1 billion. The ventilation system had an automatic filter system linked to continuous air monitors, but the linkage had been disabled. 10/25/18 Tr. 137, ll. 2 -139, l. 25 (Anastas). The contamination in the underground was severe and caused the abandonment of the southern part of the facility. 10/25/18 Tr. 199, ll. 2-14 (Hancock).

Mr. Anastas pointed out that the prospect of a drum detonation had been analyzed by EEG in 1991. SRIC Ex. 43 and 44. DOE had responded that such an occurrence could not happen. 10/25/18 Tr. 149 ll. 14-17 (Anastas). The SEIS-II of 1997 assigned a very low probability to such an occurrence, namely, once in 10,000 years. 10/25/18 Tr. 150 ll. 14-16 (Anastas); AR 180914.32C at 5-106. Nevertheless, the drum detonation happened in 2014. Numerous drums from the same batch were sent to storage at Waste Control Specialists in Andrews, Texas. 10/25/18 Tr. 150 ll. 17-21 (Anastas).

Investigators found that causes included a widespread lack of management initiative in addressing longstanding deficiencies, neglect of maintenance of important elements of the plant, and the failure to maintain a strong safety culture at WIPP. (Anastas prefiled testimony 15-19). The DOE investigators reported as follows concerning the safety attitude prevailing at WIPP:

Repeat deficiencies were identified in DOE and external agencies' assessments, e.g., Defense Nuclear Facilities Safety Board (DNFSB), emergency management, fire protection, maintenance, CBFO oversight, and work planning and control, but were allowed to remain unresolved for extended periods of time without ensuring effective site response.

SRIC Ex. 42 at ES-4. The Phase 2 Radiological Release Event report identified the “systemic root cause” as a failure by Los Alamos National Laboratory (“LANL”) and DOE Carlsbad Field Office (“CBFO”) “to ensure that LANL had adequately developed and implemented repackaging and treatment procedures that incorporated suitable hazard controls and included a rigorous review and approval process.” SRIC Ex. 48 at ES-7. Twelve contributing causes were identified. *id.*

LWA violation: Mr. Anastas reported an occurrence in September 2013, when DOE personnel at Argonne National Laboratory packaged some spent fuel and high level waste and sent it to WIPP, which accepted it, contrary to § 12 of the LWA. Specifically, pieces of spent fuel from some U.S. commercial reactors, a Belgian reactor, and a CANDU reactor were assembled in pipe overpack containers and shipped to WIPP. Also, reprocessing waste from a UREX reprocessing campaign was packaged and sent to WIPP. 10/25/18 Tr. 135, ll. 22-136, 1.9 (Anastas); Anastas prefiled testimony at 18. *See also* SRIC Ex. 50 at 3-7.

Roof falls: There were roof falls in Panel 3 and 4 access drifts in September and October 2016 and in Panel 7 Room 4 in November 2016. 10/25/18 Tr. 143, ll. 1-3 (Anastas); Anastas prefiled testimony at 4. These involved large blocks of salt weighing several tons. Mr. Anastas observed that DOE seemed to think that it was a solution simply to cordon off the areas where roof falls occurred. But, he explained, “That doesn’t solve the problem.” 10/25/18 Tr. 172, ll. 17-20 (Anastas). Rather, “You have

got to figure out why the roof falls are occurring, and take steps to assure that it does not.” *Id.* at ll. 21-23 (Anastas).

Electrical problems: There has been a continuing unavailability, for several months, of one of the electrical buses that serves the underground, leaving only one available power source. 10/25/18 Tr. 142 ll. 2-5 (Anastas). Mr. Anastas explained that, for nuclear facilities, it is important to have more than one electrical source at all times. *id.* ll. 5-8 (Anastas). *See also* Anastas prefiled testimony at 7.

Ventilation problems: DNFSB noted in a March 2018 report that WIPP’s new Supplemental Ventilation System (“SVS”) was not integrated with the continuous air monitor system. Apparently, CBFO regards the interface, which would shift the ventilation system to filter mode if radiation is detected, to be outside the design scope of the SVS. 10/25/18 Tr. 145, ll. 9-13 (Anastas). The problem could lead to a release of radioactivity to the environment. *id.* at 147, ll. 5-12 (Anastas). DNFSB itself drew this problem to the attention of CBFO. *id.* at 145, ll. 22-25 (Anastas). In addition, CBFO in May 2018 called upon NWP to verify that underground ventilation conforms to the facility plan. *id.* at 146, ll. 5-7 (Anastas). NWP gathered some data, but it was unusable. The issue has not been resolved. Other ventilation issues are outlined in prefiled testimony. Anastas prefiled testimony at 5, 6, 8.

Fire safety: The DOE Deputy Assistant Secretary for Safety, Security, and Quality Assurance sent a memo on November 21, 2017, requiring WIPP to prepare a plan for prioritizing and funding its fire protection issues. 10/25/18 Tr. 143, ll. 14-18 (Anastas). There had been inadvertent discharges of fire suppression equipment due to record-keeping errors. One recent occurrence was the freezing of water lines, damaging

equipment and rendering it inoperable. The water line to the decontamination trailer froze; this was noted in a February 2018 DNFSB report. *id.* at. 144, ll. 19-22 (Anastas). The previous decontamination trailer had frozen three years previously. *id.* at ll. 12-13 (Anastas). Other fire protection issues were raised by the DNFSB. Anastas prefiled testimony at 4.

Mr. Anastas has visited one hundred or more nuclear sites around the world, including WIPP. When asked whether he would go into the WIPP underground in its present condition, he said: “In all capitals, bold, NO. Six exclamation points.” 10/25/18 Tr. 174, ll. 24-25 (Anastas).

i. This Permit Modification Request

The nature of the PMR is not obvious, nor is the nature of the changes that NMED made to DOE’s proposal to arrive at the Draft Permit. Zappe prefiled testimony at 3-5. In the PMR, Permittees ask NMED to introduce into the Permit new definitions that distinguish between “TRU mixed waste volume” and “TRU waste volume of record.” AR 180121, PMR at 3. These two different definitions would apply to the *same* waste—the defense TRU waste disposed of at WIPP. “TRU mixed waste volume” would mean the volume of the outermost disposal container of waste and would be “reported by the Permittees relative to the maximum capacities in Permit Part 4, Table 4.1.1.” *Ibid.* “TRU waste volume of record” is defined as the “volume of TRU waste inside a disposal container” and is “reported, separately from the Permit, by the DOE pursuant to the WIPP Land Withdrawal Act total capacity limit of 6.2 million ft³.” *id.* at 4.

Permittees also propose changes in Table 4.1.1. Currently, this table lists each underground panel, Panels 1 through 8. As to each, it shows in one column the

“Maximum Capacity” of each panel for CH TRU waste and RH TRU waste. In a separate column, it shows the “Final Volume”—*i.e.*, the total amount of waste actually emplaced, as calculated after emplacement by summing the volume of each outer container of waste that has been emplaced. The Final Volume for each panel is reported to NMED by DOE upon panel closure pursuant to Permit Section 6.10.1.

In the PMR, Permittees propose that the column heads be changed to read “Maximum TRU Mixed Waste Capacity” and “Final TRU Mixed Waste Volume,” and a footnote be added to state that the Final TRU Mixed Waste Volume is based upon outer container volumes. *Ibid.*

The PMR also includes changes to provisions concerning closure. Section 6.5.2 would call for closure of the facility “after the HWDUs have been filled” and DOE must report the final TRU mixed waste volume. *id.* at B-5. Section G-1, Closure Plan, would be revised to state that “final facility closure is defined as closure that will occur when all permitted HWDUs are filled or have achieved their maximum capacities as outlined in Permit Part 4, Table 4.1.1.” *id.* at B-14. Similar changes are proposed in Sections G-1c, H-1a(2), H1, and Table J-3 to eliminate references to the total maximum capacity and to identify the maximum capacity for “TRU mixed waste” as the sum of the permitted capacities for HWDUs.

Permittees have announced a new CBFO Management Policy, which will contain DOE’s new method of calculating the volume of TRU waste in a container. See TID Response (AR 180706). Permittees’ Exhibit A is a Draft Policy, however. This document shows one way in which DOE might calculate LWA TRU waste volume. The Management Policy was not previously submitted with the PMR, and, although Mr.

Maestas of NMED initially said that DOE was bound to calculate waste volume based on the volume of the innermost container, he later admitted that DOE was not constrained at all in how it might calculate the volume of emplaced waste, and in practice neither NMED nor the parties to this proceeding would have an opportunity to review or approve any change in the policy. 10/24/18 Tr. 103, ll. 11-19, Tr. 104, ll. 6-16, Tr. 127, ll. 16 – 123, l. 2, Tr. 132, ll. 20-25 (Maestas).

In issuing a Draft Permit, NMED has changed the proposed definition of “LWA TRU Waste Volume” to call it:

the volume of TRU waste inside a disposal container. This volume is tracked and reported by the DOE internally relative to the WIPP Land Withdrawal Act total capacity limit of 6.2 million ft³ (175,564 m³ (Pub. L. 102-579, as amended). For informational purposes, the LWA TRU Waste Volume is included in Table 4.1.1.

Draft Permit at 1-6. In addition, NMED would include in Table 4.1.1 an additional column headed “Final LWA TRU Waste Volume” to reflect the volumes of LWA TRU waste, as newly defined, calculated by DOE and reported for each panel. Draft Permit at 4-2 and 4-3. Further, NMED would include, as a basis for facility closure, attainment of the LWA maximum capacity of 6.2 million ft³. Draft Permit at G-2.

The concept of a “LWA volume of record” introduces a volume number that is entirely within DOE’s unregulated discretion. Draft Permit §1.5.22. Mr. Kehrman stated that the method for determining LWA TRU waste volume is an “internal” matter subject to determination by DOE. 10/23/18 Tr. 146 ll. 22-24 (Kehrman). Mr. Maestas, witness for NMED, testified that the value of “LWA TRU waste volume” is entirely within DOE’s power to determine. 10/24/18 Tr, 87, ll. 13-19, Tr. 103, ll. 11-19, Tr. 132, ll. 20-25 (Maestas). DOE can change its method of calculation without notice to or concurrence by NMED. 10/24/18 Tr. 127, ll. 22 – 128, l. 2 (Maestas).

In Permittees' PMR and in NMED's Fact Sheet and Draft Permit, neither the Permittees nor NMED has articulated any new information or rationale to support a departure from the way compliance with the LWA capacity limit has historically been determined based on the volume of the outer container, nor any justification to expand WIPP's capacity.

The changes proposed in the PMR raise several questions: If the changes are adopted, what would be the maximum capacity of WIPP? How would it be measured? When must closure of the WIPP facility occur? And what entity—NMED, DOE, or some other—would decide these matters?

Closure is governed by Permit § G-1, Closure Plan, which says in the Draft Permit as follows:

For the purposes of this Closure Plan, final facility closure is defined as closure that will occur when all permitted HWDUs are filled or have achieved their maximum capacities as outlined in Permit Part 4, Table 4.1.1 or when WIPP achieves its capacity of 6.2 million cubic feet (ft³) (175,564.m³) of Land Withdrawal Act (LWA) TRU waste volume.

Draft Permit § G-1. Mr. Maestas testified that, under the PMR, the "Total" quantities shown in Table 4.1.1 for either Maximum TRU Mixed Waste Capacity or Final TRU Mixed Waste Volume *could exceed* 6.2 million ft³—the statutory limit. 10/24/18 Tr. 160, l. 5 – 161, l. 13 (Maestas). Thus, the amounts listed in those columns would not trigger closure. The fifth column, Final LWA TRU Waste Volume, is entirely within DOE's control. 10/24/18 Tr. 161 ll. 14-20 (Maestas). Thus, NMED takes the position that DOE alone would determine when WIPP must close. *id.* Mr. Hancock pointed out that, as modified, the Permit would contain three columns in Table 4.1.1, showing the volume attributable to each panel under three different measures, and the Permit would not say

which column determines when the maximum capacity has been reached, requiring closure. 10/25/18 Tr. 220, ll. 17-221 l. 3; 222, ll. 5-11 (Hancock). Mr. Hancock underscored that the PMR would deny NMED the power, and the duty, to close WIPP when it reached the 6.2 million ft³ limit: “The RCRA Land Withdrawal Act capacity limit would not become something that the Environment Department is enforcing, but they would be dependent on whatever DOE decides to calculate it as, however it decides to calculate it.” *id.* 191, ll. 14-18 (Hancock). In addition, he said that closure would not occur when all of the planned panels are full, because DOE intends to seek further disposal space. *id.* 191, ll. 19-25; 192, ll. 19-22 (Hancock).

What are the practical consequences of the proposed modification? Mr. Kehrman stated that DOE has calculated that the use of the outer container volume in calculating waste emplaced at WIPP causes the volume of emplaced waste to be overstated by 30% compared to the value that DOE assigns to “LWA TRU waste volume.” 10/23/18 Tr. 209, ll. 3-8 (Kehrman).

Mr. Kehrman also said that DOE plans to recalculate the previously-emplaced volume retroactively, going back to the start of WIPP’s operation in 1999. 10/23/18 Tr. 214, ll. 14-18 (Kehrman). The result of such recalculation may be shown: Summing the emplaced amounts now listed in Table 4.1.1 as Final TRU Mixed Waste Volume in Panels 1 through 6, and adding the future volumes, *i.e.*, Maximum TRU Mixed Waste Capacities, for Panels 7 and 8, the total is 4,579,200 ft³. Draft Permit, Table 4.1.1. Reducing this emplaced volume by 30%, the result is 3,205,440 ft³ of emplaced waste. Thus, of the statutory limit of 6.2 million ft³, there would remain 2,994,560 ft³ of unfilled

capacity—a quantity of waste that would call for more than four additional panels of the current capacities.

Mr. Kehrman stated that DOE would be filing additional PMRs, asking NMED for authority to excavate more disposal space. 10/23/18 Tr. 53, ll. 1-24; 215, ll. 15-19; 217, ll. 9-10 (Kehrman); Kehrman prefiled testimony at 3 and 16. Mr. Maestas had the same expectation. 10/24/18 Tr. 175, ll. 3-9 (Maestas). Of course, a facility enlarged to contain nearly three million ft³ of additional TRU waste would be much larger than the WIPP described in three Environmental Impact Statements, one certification and three recertifications by EPA, and the RCRA Permit issued by NMED. See, *e.g.*, Draft Permit Att. B, Permit Application Part A. And, while DOE previously projected that waste emplacement would continue for about 25 years, the changes wrought by the PMR and Draft Permit would mean that WIPP will scarcely be half full when Panels 1 through 8 are filled, indicating that New Mexico must endure approximately 20 additional years of waste transportation and operations at WIPP.

Mr. Hancock explained that DOE could not accurately recalculate the volume of emplaced waste, using only the volume of inner containers, because the WIPP Waste Data System (“WDS”) does not record, *e.g.*, containers for which the volume of the overpack should be counted as waste volume, such as those that were overpacked because of a loss of container integrity, or containers that vented hazardous waste into the interior of the overpack, or similar situations. 10/25/18 Tr. 190, ll. 13- 191, l. 1 (Hancock).

Mr. Walentine, testifying for the Permittees, stated that the WDS did not track breached containers, not even container LA00000068660, which released contaminants

on February 14, 2014. 10/24/18 Tr. 45, ll. 19-25 (Walentine). *See also* SRIC Ex. 26. The reason that overpacks are used in a particular case is not entered in the WDS. 10/24/18 Tr. 23, ll. 12-16 (Walentine). If an inner container in an overpack has leaked, the WDS does not record such leaks. 10/24/18 Tr. 54, ll. 25 – 55, l. 3 (Walentine). If inner containers leak waste into the overpack, the proposed LWA volume would not include the waste contaminants that leaked into the air and overpack. 10/24/18 Tr. 55, ll. 4-9 (Walentine). Moreover, the publicly available WDS does not include information about the inner containers in an overpack. 10/24/18 Tr. 23, ll. 23-25 (Walentine). Thus, the public cannot verify the accuracy of a report on the contents of an overpack container. 10/24/18 Tr. 54, ll. 7-13 (Walentine).

The WDS lists 10 pieces of equipment that occupy space in Panel 7, Room 6, as “non-containerized material.” They are not included in the waste volume calculations 10/24/18 Tr. 62, ll. 11-17 (Walentine), even though the waste occupies the space that was to hold more than 70,000 ft³ of waste. 10/24/18 Tr., 63, ll. 14-17 (Walentine).

Mr. Walentine explained that, except for edit and limit functions, the WDS does not distinguish between accurate and inaccurate data entered by the generator sites. 10/24/18 Tr. 40, ll. 13-16 (Walentine).

The requested modifications would plainly work massive changes in the operation and the impacts of WIPP, departing dramatically from the original plan that was authorized by NMED and ceding control to DOE over the vital decisions that, in law, must remain with NMED. Hancock prefiled testimony at 10-12. The proposal contains fundamental legal flaws, to which we now turn:

Argument

1. Under RCRA, NMED has the authority, and the duty, to regulate the volume of waste at WIPP and always has done so under the HWA permit.

This PMR is predicated upon a misunderstanding—or a misstatement—of the federal laws that apply to WIPP. RCRA was enacted to protect human health and the environment. Without a RCRA permit (in New Mexico issued pursuant to the Hazardous Waste Act, § 74-4-1 *et seq.* NMSA 1978 (“HWA”)), WIPP cannot operate, and with a RCRA permit, WIPP is required to operate within the terms of that Permit. On the other hand, the WIPP LWA, Pub. L. No. 102-579, was enacted primarily to withdraw the WIPP site from the operation of the public land laws of general application. It contains several conditions to constrain the operation of the waste disposal facility. However, the LWA authorizes no new environmental standards for WIPP and confers no environmental authorities upon DOE. Instead, it mandates that DOE at WIPP must comply with existing environmental laws, which the LWA expressly does not modify or limit. These LWA savings clauses and other provisions in the LWA make clear that, even if a conflict existed between the LWA and RCRA, the provisions of RCRA would prevail.

RCRA requires EPA to issue regulations, *inter alia*, establishing a structure for the issuance of hazardous waste permits (42 U.S.C. § 6925), which EPA has done (40 C.F.R. Parts 260-272). These regulations include rules for permitting of “miscellaneous units,” a term that includes WIPP. 40 C.F.R. §§ 264.601-03, Subpart X. Such rules require the permitting authority to consider the scope of a proposed facility and the possible ways hazardous wastes might be released from such a facility and to issue a permit that protects human health and the environment. Regulations direct as follows:

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions must include those requirements of subparts I through O and subparts AA through CC of this part, part 270, part 63 subpart EEE, and part 146 of this chapter that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment, considering . . .

40 CFR § 264.601. The factors that the permitting authority must consider include:

The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

Id. Further, the permitting authority is required to include in its permit the specific reporting requirements that meet the needs of the facility:

Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with §§ 264.601, 264.15, 264.33, 264.75, 264.76, 264.77, and 264.101 as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

40 CFR § 264.602. EPA explained in issuing Subpart X that any possible release of hazardous constituents must be examined and provisions included in the permit to guard against such possible releases. Such measures require the issuing authority to regulate the volume, concentration and characteristics of hazardous wastes to be disposed of. EPA stated:

1. Ground-Water and Subsurface Migration

Section 264.601(a) lists several factors to be considered to prevent any release that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment. These factors must be addressed to prevent ground-water contamination and the subsurface migration of hazardous waste from miscellaneous units (e.g., geologic repositories and hazardous waste management units that are placed in or on land).

The first factor includes the volume, concentration, and physical and chemical characteristics of the waste placed in the unit. The volume and concentration determine the maximum amount and concentration of waste that may enter the ground water.

EPA Release, 52 Fed. Reg. 46946, 46956 (Dec. 10, 1987).

The EPA Subpart X regulations have been adopted as HWA regulations. 20 NMAC

4.1.500. The HWA regulations outline the process that NMED followed in issuing the permit for WIPP in 1999. The Permittees filed a Part A application, which by regulation must include:

(j) A specification of the hazardous wastes listed or designated under 40 CFR part 261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

40 C.F.R. § 270.13. DOE filed a complete Part A application with the Permit

Application, giving the capacity of 175,600 m³, which is the equivalent of 6.2 million ft³.

AR 180402.48G. The Part A application states: “The geologic repository has been divided into ten discrete hazardous waste management units (HWMU) which are being permitted for disposal under 40 C.F.R. Part 264, Subpart X.” *id.* at A-5. Capacities of each HWMU are stated in cubic meters. It is stated that “During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 may be remote-handled (RH) TRU mixed waste.” *id.* at A-25.

DOE filed a Part B application, which described in detail, inter alia, how the WIPP facility would meet Environmental Performance Standards. AR 180402.48G, ch. D-9. *See* 10/23/18 Tr. 73, ll. 19 – Tr. 74, l. 18 (Kehrman). NMED was assisted in reviewing DOE’s application by EPA’s publication, Hazardous Waste Storage and Disposal in Geologic Repositories, Permit Guidance under the Resource Conservation and Recovery Act, EPA/530-SW-001, Sept. 1988. This guidance states that a RCRA

permit application for a geologic repository should address the structural stability, hydrologic isolation, waste emplacement methods, and worker safety and health of the proposed repository. *id.* at 3-2 to 3-5.

During the WIPP Permit hearing in 1999, NMED provided evidence and testimony regarding its authority under the LWA and the HWA to impose various conditions in the Permit. AR 180402.34A, 180914.37T, 180914.37W. The Permit imposed capacity limits on each Hazardous Waste Disposal Unit (“HWDU”), based on container volumes, including overpacks, which were included in the Permit. Permit Part III.C.1. Thus, in law, regulation, and practice, NMED has authority to impose conditions, including capacity limits, on WIPP. NMED has used its authority to specify that WIPP HWDU capacity limits are based on container volumes.

On October 27, 1999 NMED issued the HWA disposal permit for WIPP. The Permit, among other requirements, specifies the maximum quantities of transuranic waste to be disposed of in each of eight panels, and calls upon DOE to maintain records of the volume of waste emplaced in each room and to report the volume in each panel by submitting a permit modification, for entry of the data in Table 4.1.1. Permit Part 1.3.1, 6.10.1. The Permit is predicated on a determination by NMED that the WIPP facility will protect human health and the environment if operated within the limits of the Permit, which include the authorized waste volume.

It is not correct to suggest, as DOE does, that the purpose of the HWA Permit is simply to ensure that the waste fits within the “physical volume of each mined HWDU” or to assure “safe management of the waste and initiation of closure of the HWDUs.” AR 180121, PMR at 2. To the contrary, the HWA permit is designed to ensure that the WIPP facility as a whole, for the present and the future, does not adversely affect human health

and the environment, as RCRA and the RCRA regulations mandate. NMED has determined that, without the Permit, with all its terms and conditions, including as to waste volume, it cannot ensure that WIPP would be safe, and therefore WIPP would not be entitled to operate. Indeed, without that Permit WIPP may not lawfully operate, and it may not, at any time, lawfully operate beyond the limits set by that Permit, including, for present purposes, the waste types and volumes specified in existing Table 4.1.1. Mr. Maestas of NMED acknowledged that NMED is mandated to enforce volume limits. 10/24/18 Tr. 167, ll. 19-25, Tr. 168, ll. 1-13 (Maestas).

The Subpart X regulations, and other RCRA regulations, are not optional. It is not within NMED's authority to exempt WIPP from part of the Subpart X regulations. Regulation of hazardous wastes is governed by federal law, and RCRA is the supreme law of the land. U.S. Const., Art. VI, Cl. 2. The LWA specifically saves RCRA from any implied repeal. LWA §§ 9(d), 14. NMED has represented to EPA that New Mexico's HWA program is "equivalent to, consistent with, and no less stringent than the federal program" under RCRA. On that basis, EPA authorized New Mexico under 42 U.S.C. § 6926(b) to operate the state's HWA program in lieu of RCRA. Maestas prefiled testimony at 2-3. *See also generally*, New Mexico: Final Authorization of State Hazardous Waste Management Program Revision, 72 Fed. Reg. 46165 (Aug. 17, 2007).

2. DOE has no delegated authority to regulate WIPP. DOE cannot exercise such authority, and its interpretations are not entitled to deference.

DOE now claims, for the first time in this PMR, that it has independent authority under the LWA to interpret the volume limitation in LWA § 7(a)(3), which states: "The total capacity of WIPP by volume is 6.2 million cubic feet of transuranic waste." (AR 180121, PMR at 9-10). DOE claims that it can apply its own measurement methods to

the statutory limit of 6.2 million ft³ and can tell the rest of the world, including NMED and EPA, what waste containers do or do not constitute 6.2 million ft³ of TRU waste. DOE claims that it can use its own fill factors, count or discount overpacks or inner containers, and so forth. The Draft Permit would have the Permittees report the numerical conclusion for entry by NMED into Table 4.1.1. NMED's witness, Mr. Maestas, confirmed that this is his understanding. 10/24/18 Tr. 127, ll. 12-15, Tr. 161, ll. 14-20 (Maestas). Mr. Kehrman agreed that DOE could make such determinations without oversight or explanation. 10/23/18 Tr. 83, ll. 3-16; Tr. 91, ll. 6-21; Tr. 146, ll. 13-24; (Kehrman).

But, against the specific and mandatory RCRA requirements, calling upon NMED to determine the needs of safety and the environment, and mandating that NMED ascertain and record the volume of waste emplaced, DOE presents no legal basis for DOE, independently and without regulation, to calculate and report publicly the quantity of waste disposed of at WIPP⁵.

The fundamental fact of this case is that the LWA assigns no regulatory role to DOE. DOE asks leave to regulate its own compliance with the LWA volume limit, by determining the volume of waste in containers emplaced at WIPP. Of course, DOE is free to record and maintain any statistics it finds meaningful. But the calculation of an asserted "LWA TRU waste volume," with or without its insertion into the Permit, can have no legal effect on the operation of WIPP. The LWA does not appoint DOE as a separate regulator under the LWA. To the contrary, the LWA expressly acknowledges

⁵ The Permittees cite to the Atomic Energy Act and the DOE Organization Act (Kehrman prefiled testimony at 8), but these general provisions do not refer to WIPP, nor do they confer upon DOE regulatory authority over WIPP.

and empowers other federal and state authorities to have such regulatory responsibilities.

The LWA expressly directs DOE not to enforce but *to comply with RCRA, RCRA regulations, and the RCRA permit*,⁶ and to document its compliance with such legal requirements:

SEC. 9. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS.

(a) In General. --

(1) Applicability. Beginning on the date of the enactment of this Act, the Secretary [of Energy] shall comply with respect to WIPP, with –

* * *

(C) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.);

* * *

(H) all regulations promulgated, and all permit requirements, under the laws described in subparagraphs (B) through (G).

(2) Periodic oversight by administrator and state. The Secretary [of Energy] shall, not later than 2 years after the date of the enactment of this Act, and biennially thereafter, submit documentation of continued compliance with the laws, regulations, and permit requirements described in paragraph (1) to the Administrator, and, with the law described in paragraph (1)(C), to the State.

(3) Determination by administrator or state. The [EPA] Administrator or the State, as appropriate, shall determine not later than 6 months after receiving a submission under paragraph (2) whether the Secretary is in compliance with the laws, regulations, and permit requirements described in paragraph (1) with respect to WIPP. AR 180706.03.

In addition, LWA § 9(d) underscores the State’s ongoing authority under RCRA:

(d) Savings provision.—The authorities provided to the Administrator and to the State pursuant to this section are in addition to the enforcement authorities available to the State pursuant to State law and to the Administrator, the State, and any other person, pursuant to the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.) and the Clean Air Act (40 U.S.C. 7401 et seq.).

⁶ References to the Solid Waste Disposal Act, 42 U.S.C. § 6901 *et seq.*, include RCRA, which is a part of that Act (42 U.S.C. § 6921 *et seq.*, Subchapter III).

Thus, it cannot be contended that the LWA modified the applicable RCRA requirements. To preclude any such claims, the LWA specifically states that nothing therein modifies the terms of RCRA or limits the State's or EPA's authority to enforce or DOE's obligation to comply with RCRA:

SEC. 14. SAVINGS PROVISIONS.

(a) CAA and SWDA. No provision of this Act may be construed to supersede or modify the provisions of the Clean Air Act (42 U.S.C. 7401 et seq.) or the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).

(b) EXISTING AUTHORITY OF EPA AND STATE. No provision of this Act may be construed to limit, or in any manner affect, the Administrator's or the State's authority to enforce, or the Secretary's obligation to comply with --

(1) the Clean Air Act (42 U.S.C. 7401 et seq.);

(2) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.), including all terms and conditions of the No-Migration Determination; or

(3) any other applicable clean air or hazardous waste law.⁷ .

The LWA says that NMED's role is to enforce RCRA, and DOE's role is to comply with RCRA. There is no reference to any authority granted to DOE to interpret and enforce limits on the introduction of waste.

⁷ The 1996 WIPP Land Withdrawal Amendments Act, Pub. L. No. 104-201, relieved DOE from compliance with the land disposal provisions of RCRA for waste designated for WIPP. These amendments have no effect on the case at hand. Section 14 of the LWA now reads as follows:

Section 14. Savings provisions.

(a) CAA and SWDA.—Except for the exemption from the land disposal restrictions described in Section 9(a)(1), no provision of this Act may be construed to superseded or modify the provisions of the Clean Air Act (42 U.S.C. 7401 et seq.) or the Solid Waste Disposal act (42 U.S.C. 6901 et seq.).

(b)EXISTING AUTHORITY OF EPA AND STATE.—No provision of this Act may be construed to limit, or in any manner affect, the Administrator's or the State's authority to enforce , or the Secretary's obligation to comply with—

(1) the Clean Air Act (42 U.S.C. 7401 et seq.);

(2) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.), except that the transuranic mixed waste designated by the Secretary for disposal at WIPP is exempt from the land disposal restrictions described in section 9(a)(1);

or

(3)any other applicable clean air of hazardous waste law.

If the PMR is granted and DOE starts asserting its “LWA volume of record” calculations for amounts of waste emplaced, there would clearly be a conflict between DOE’s waste volume data and the waste volume data compiled by NMED. Mr. Kehrman said that the purpose of the PMR is to “remov[e] the nexus” between the LWA volume and the TRU mixed waste volume” regulated by the Permit. 10/23/18 Tr. 79, ll. 16-18 (Kehrman).

But there are rules for resolving conflicts between federal statutes. First, the courts must be reluctant to read conflicts into statutes: “The canon against reading conflicts into statutes is a traditional tool of statutory construction.” *See Epic Systems Corp. v. Lewis*, 138 S.Ct. 1612, 1630 (2018). The preferred course in interpreting two statutes that address the same subject matter is to give full effect to the provisions of both statutes: “It is this Court’s duty to interpret Congress’s statutes as a harmonious whole rather than at war with one another.” *id.* 1619.

Under RCRA, NMED is charged with the duty to set limits upon waste volume, to record waste emplacement, and to enforce the waste volume limit contained in the Permit. 40 C.F.R. §§ 264.601-03, Subpart X. At the same time, no provision in the LWA empowers DOE to interpret statutory volume limits, such as the waste volume limit of 6.2 million ft³, nor to enforce its interpretation of such limits.

An agency’s assumption of regulatory authority, such as DOE seeks here, must be based on clear statutory language: “[A]n administrative agency’s power to regulate in the public interest must always be grounded in a valid grant of authority from Congress.” *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 161 (2000). Thus: “The Supreme Court has long recognized the principle of deference which requires courts to

accord 'considerable weight' to the construction by an executive department of a statute that it administers." *Ohio v. Ruckelshaus*, 776 F.2d 1333, 1339 (6th Cir. 1985). The key phrase is: "a statute that it administers." The statute in question must be "delegated to the[] care" of the agency:

Of course, courts afford considerable deference to agencies interpreting ambiguities in statutes that Congress has delegated to their care, *see Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 104 S. Ct. 2778, 81 L. Ed. 2d 694 (1984), including statutory ambiguities affecting the agency's jurisdiction, *see Commodity Futures Trading Comm'n v. Schor*, 478 U.S. 833, 844, 106 S. Ct. 3245, 92 L. Ed. 2d 675 (1986); *see also Miss. Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 381, 108 S. Ct. 2428, 101 L. Ed. 2d 322 (1988) (Scalia, J., concurring in the judgment); *Teamsters Local Union No. 523 v. NLRB*, 590 F.3d 849, 850-51 (10th Cir. 2009).

Hydro Resources, Inc. v. U.S. EPA, 608 F.3d 1131, 1145-46 (10th Cir. 2010). But courts refuse deference to the pronouncements of an agency that has no such delegation of authority:

Courts do not, however, afford the same deference to an agency's interpretation of a statute lying outside the compass of its particular expertise and special charge to administer. *See Metro. Stevedore Co. v. Rambo*, 521 U.S. 121, 137 n.9, 117 S. Ct. 1953, 138 L. Ed. 2d 327 (1997) (no deference given to agency interpretation of statute, in part, because the agency was not "charged with administering" it); *Adams Fruit Co. v. Barrett*, 494 U.S. 638, 649, 110 S. Ct. 1384, 108 L. Ed. 2d 585 (1990) ("A precondition to deference under *Chevron* is a congressional delegation of administrative authority.").

id.

Such delegation of authority is not discovered by speculating about the supposed implications of obscure statutory provisions: "[I]t is highly unlikely that Congress would leave the determination of whether an industry will be entirely, or even substantially, rate-regulated to agency discretion—and even more unlikely that it would achieve that through such a subtle device as permission to 'modify' rate-filing requirements." *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000), *quoting from MCI*

Telecommunications Corp. v. American Telephone & Telegraph Co., 512 U.S. 218, 231 (1994). Permittees’ PMR ignores the watchword that “Congress ‘does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes.’” *Epic Sys. Corp. v. Lewis*, 138 S. Ct. 1612, 1626-1627 (2018), quoting from *Whitman v. American Trucking Assns., Inc.*, 531 U. S. 457, 468 (2001).

Thus, there is no conflict between the federal laws, because no federal law authorizes DOE to perform the function that it claims here—that the “LWA requires the volume to be reported relative to the total capacity limit of 6.2 million ft³ (175,564 m³) of TRU waste” (AR 180121, PMR at 2)—a DOE function that exists nowhere in federal law, least of all in the LWA.

3. DOE offers no interpretation to which other agencies or courts may defer.

Moreover, DOE does not disclose the methodology it would employ to determine emplaced waste volumes or the conclusions it would reach. To deserve any deference at all, an agency decision must make an explicit “interpretive choice.” *United States v. Mead Corp.*, 533 U.S. 218, 226-38 (2001). DOE’s public interpretations of the LWA volume limit over decades, which are many, all conflict with the separate determinations it now proposes to make. The PMR proposes that DOE simply deliver to NMED a waste volume number, without basis or explanation, which NMED will enter in the Permit. Even when an agency is charged with administration of its own statute, in deciding whether to accept its interpretations the courts must consider “the agency’s care, its consistency, formality, and relative expertness, and to the persuasiveness of the agency’s

position.” *Mead Corp.*, 533 U.S. at 228. Under DOE’s proposal, none of those would be visible. There is no process to whose result NMED may choose to defer.

4. The meaning of the 6.2 million ft³ volume limit is clear when understood in the statutory context.

In evaluating a federal agency’s interpretation of a statute that it administers, guidance is furnished by *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). *Chevron* counsels that one must address an agency interpretation by first determining whether the statute in question is ambiguous. One must consider the specific language in issue in the context of the other language of the statute. Thus, in determining

whether Congress has specifically addressed the question at issue, a reviewing court should not confine itself to examining a particular statutory provision in isolation. The meaning—or ambiguity—of certain words or phrases may only become evident when placed in context. See *Brown v. Gardner*, 513 U.S. 115, 118, 130 L. Ed. 2d 462, 115 S. Ct. 552 (1994) (“Ambiguity is a creature not of definitional possibilities but of statutory context”).

FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 132-33 (2000). See also *Pharmanex v. Shalala*, 221 F.3d 1151, 1157 (10th Cir. 2000). It is a “fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.” *Davis v. Michigan Dept. of Treasury*, 489 U.S. 803, 809 (1989).

Apparent ambiguities may be resolved by the structure of the statute and the meaning of other sections. *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132-33 (2000); *Robinson v. Shell Oil Co.*, 519 U.S. 337, 345-46 (1997). A court must interpret the statute “as a symmetrical and coherent regulatory scheme,” *Gustafson v. Alloyd Co.*, 513 U.S. 561, 569, 131 L. Ed. 2d 1, 115 S. Ct. 1061 (1995), and “fit, if

possible, all parts into an harmonious whole," *FTC v. Mandel Brothers, Inc.*, 359 U.S. 385, 389, 3 L. Ed. 2d 893, 79 S. Ct. 818 (1959).

NMED claims that it sought the intent of Congress by reading the LWA. 10/24/18 Tr. 148, ll. 19-21 (Maestas). Mr. Maestas testified that NMED determined that the LWA contained no clear direction that required the use of the volume of the outermost container to calculate the emplaced volume under § 7(a)(3). Mr. Maestas testified that he determined only that the LWA volume provision, § 7(a)(3), viewed by itself, does not *require* waste measurement based on the outermost container volume. Maestas pre-filed testimony at 8; 10/24/18 Tr. 88, ll. 10-16, Tr. 141, ll. 8-25, Tr. 142, ll. 1-9 (Maestas). NMED therefore reasoned that DOE was free to determine emplaced volume by any test it wished (10/24/18 Tr. 125, ll. 11-14 (Maestas)), an observation that begins, but does not complete, the inquiry. 10/24/18 Tr. 88, ll. 10-16 (Maestas).

There is no indication that NMED gave any thought to (a) whether DOE has any statutory authority to interpret and apply the waste volume limitation or (b) the meaning of the § 7(a)(3) volume limit in the context of other LWA provisions, such as the limitations on Test Phase waste volume, the LWA's emphatic confirmation of RCRA coverage, and the multiple savings clauses that maintain the State's authority to apply RCRA.

For example, Congress's intent in enacting the LWA volume limit of 6.2 million ft³ is illustrated by two other limits on introduction of waste at WIPP contained in the original LWA, Pub. L. No. 102-579. The Test Phase was a preliminary stage that DOE proposed involving experiments with TRU waste at WIPP. The original LWA had two limitations on the introduction of waste for the Test Phase:

(a) EPA's No-Migration Determination, 55 Fed. Reg. 47700 (Nov. 14, 1990). The No-Migration Determination limited the introduction of waste for the test phase: "Wastes placed in the repository may not exceed 8,500 drums or 1 percent of the total capacity of the repository, as currently planned." *id.* at 47720.

(b) Test Phase limitations contained in the original LWA § 6(c), which limited introduction of waste for the Test Phase to "in no event more than 1/2 of 1 percent of the total capacity of WIPP as described in section 7(a)(3)." AR 180706.03.

When the LWA was passed, the impact of total repository volume limits was years in the future, but the limits applicable to the Test Phase were of urgent interest. In its No-Migration Determination, EPA said that to exceed the limit of 1% of the total WIPP capacity, or 8,500 drums, would be a basic change in the nature of DOE's activities, requiring notice and comment rulemaking:

Rather, EPA in effect is defining a limit that it would consider to be a significant departure from the activities described in DOE's no-migration petition and its final test plan. Before DOE could exceed that limit, it would have to repetition EPA, and any EPA approval of an expanded test program would have to undergo public comment.

55 Fed. Reg. 47700, 47707. In the LWA, Congress spotlighted the limitations of the No-Migration Determination as included within DOE's obligation to comply with RCRA, *viz*: "including all terms and conditions of the No-Migration Determination." (LWA § 14(b)(2)).

Congress also included in the LWA its own specific limitation on Test Phase waste, which firmly limited the volume of waste allowed for the Test Phase to:

(A) only such quantities of transuranic waste as the Administrator has approved for test phase activities under section 5; and
(B) in no event more than 1/2 of 1 percent of the total capacity of WIPP as described in Section 7(a)(3).

LWA § 6(c)(1).

If DOE were authorized to determine what constitutes a given volume of waste, such an authority would be in utter conflict with the waste volume limits on Test Phase activities in EPA's No-Migration Determination, 55 Fed. Reg. 47700 (Nov. 14, 1990), and in the original LWA § 6(c)(1) itself. In mandating specific volume limits for the Test Phase, Congress plainly did not empower DOE, in the same statute, to thwart those very limitations by exercising an unstated power to "recalculate" the volume of waste brought for tests. Much less did Congress grant DOE the power to "recalculate" WIPP's total waste volume, thereby recalculating both test volume and total volume. The power to change waste volume by "recalculation" is a latter-day DOE fabrication that does not exist in the enactments of Congress.

5. If the statutory language—6.2 million ft³—were considered ambiguous, the outermost container rule is established in the legislative history and nearly 40 years of practice, and a public rulemaking is controlling.

Section 7(a)(3), seen in the context of the entire LWA, is not ambiguous, but even if that provision be viewed as ambiguous, *Chevron* counsels that, in the presence of ambiguity, one must continue the inquiry into stage two: "If, however, the court determines Congress has not directly addressed the precise question at issue, *the court does not simply impose its own construction on the statute*, as would be necessary in the absence of an administrative interpretation." The Court explained: "Rather, if the statute is silent or ambiguous with respect to the specific issue, *the question for the court is whether the agency's answer is based on a permissible construction of the statute.*" *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 843 (1984)(*emphasis supplied*). Thus, one must consider additional sources and should reject the agency's interpretation if "it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned." *Chevron U.S.A., Inc.*

v. Natural Resources Defense Council, 467 U.S. 837, 845 (1984), quoting *United States v. Shimer*, 367 U.S. 374, 382, 383 (1961).

The inquiry is careful and focused: “The principle of deference does not permit the court to become a rubber stamp, automatically approving every agency interpretation of a statute. Rather, it requires ‘a searching and careful’ inquiry into the facts of each case to determine that the agency has acted within the scope of its statutory authority. *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416 (1971).” *Ohio v. Ruckelshaus*, 776 F.2d 1333, 1339 (6th Cir. 1985).

Further, “[i]n surveying legislative history we have repeatedly stated that the authoritative source for finding the Legislature's intent lies in the Committee Reports on the bill, which ‘[represent] the considered and collective understanding of those Congressmen involved in drafting and studying proposed legislation.’ *Zuber v. Allen*, 396 U.S. 168, 186 (1969).” *Garcia v. United States*, 469 U.S. 70, 76 (1984). However, Mr. Kehrman did not consult the legislative history. 10/23/18 Tr. 149, ll. 18-21; 166, ll. 4-8 (Kehrman). Mr. Maestas claims that he reviewed the congressional reports in response to public comments, but found no help there. 10/24/18 Tr. 102, ll. 16-25, Tr. 141, ll. 8-25; Tr. 148, ll. 6-21, (Maestas).

We look to the legislative history, recognizing that DOE offers (a) no demonstration of its supposed delegated authority to regulate waste volume and (b) no agency interpretation of the LWA volume limit which might be examined to determine whether it is “permissible.”

The congressional reports show that Congress was determined to control, by legislation, the volume of waste brought to WIPP. The House Energy and Commerce Committee observed that DOE's "test phase" plan was a matter of current debate:

However, despite these limitations, DOE's test plan remains a controversial proposal, both in terms of its safety and its utility. In a June, 1991, report, the General Accounting Office concluded, "From 1981 through 1988, DOE concentrated on building WIPP and gave little attention to resolving environmental compliance issues. In 1989, after external oversight groups had raised concerns about these issues, DOE proposed tests . . . Since then, DOE has repeatedly had to revise and delay the tests because of unresolved technical and safety issues." In addition, questions have been raised by Sandia National Laboratories and others as to whether the test phase will produce useful results.

SRIC Ex. 9C at 14. Therefore, the committees focused closely on the exact quantity of waste allowed for the Test Phase. Committees proposed bills, emphasizing that a statutory limit on Test Phase waste could not be exceeded: The Senate Energy and Natural Resources Committee stated that its limit of 1% of WIPP's capacity constitutes "an absolute limitation on volume of 1 percent of the design capacity of WIPP." SRIC Ex. 8, AR 180402.34Z. The House Interior and Insular Affairs Committee specified that "(i) the EPA Administrator must determine that movement of specific quantities of TRU waste to the WIPP is necessary to perform test phase activities; (ii) no more than 4,250 55-gallon drums of TRU waste, or one-half of one percent of the total capacity of the WIPP, whichever is less, may be used." SRIC Ex. 9A at 18, AR 180402.34AA. The House Committee on Armed Services made clear that the experimental program was strictly limited in volume: Section 6(a) "would also limit waste emplaced during the experimental program to only so much as required for the experimental program, but not to exceed 0.55 percent of the total capacity of WIPP, or 4,675 drums (or drum equivalents)." SRIC Ex. 9B at 22, AR 180402.34BB. The House Committee on Energy

and Commerce stated that “Sec. 6(c) imposes the following limitations on test phase activities at the WIPP: (i) the EPA Administrator must determine that movement of specific quantities of TRU waste to the WIPP is necessary to perform test phase activities; (ii) no more than 4,250 55-gallon drums of TRU waste, or one-half of one percent of the total capacity of the WIPP, whichever is less, may be placed in WIPP” SRIC Ex. 9C at 20, AR 180402.34CC. It is clear also that Congress understood the volume limitations to refer to waste in containers—*i.e.*, waste drums.

Thus, the legislative history (also discussed in part (c), pp. 6-8, *supra*), shows that Congress was determined to set hard limits on permissible waste volumes, understood that such volumes were measured by the volume of the containers, and clearly could not have intended DOE to possess the power to “recalculate” waste volumes to circumvent the specific limits that Congress imposed.

Moreover, it is uncontroverted in the record, so DOE must concede, that there are close to 40 years of consistent application of the rule that the volume of waste emplaced at WIPP is determined by the volume of the outermost container. This principle is embodied in Environmental Impact Statements, RCRA Permits, DOE Inventory Reports and reports to Congress, and EPA Certification decisions. See parts (d) and (e), pp. 8-14, *supra*.

Where a statute is ambiguous, the courts may look to interpretations contained in regulations issued by the agency charged with their issuance. *Dalzell v. RP Steamboat Springs, LLC*, 781 F.3d 1201, 1209 (10th Cir. 2015). *Toomer v. City Cab*, 443 F.3d 1191 (10th Cir. 2006), holds that reliance on agency interpretations contained in regulations is appropriate when the statute is ambiguous: Thus, deference is warranted when it

"appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority." *Gonzales v. Oregon*, 126 S. Ct. 904, 915, 163 L. Ed. 2d 748 (2006) (quoting *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2001)).

The Tenth Circuit has observed:

In *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 844 (1984), the Supreme Court reaffirmed that

considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer, and the principles of deference to administrative interpretations . . . consistently followed . . . whenever decision as to the meaning or reach of a statute [] involves reconciling conflicting policies, and a full understanding of the force of the statutory policy in the given situation [] depends upon more than ordinary knowledge respecting the matters subjected to agency regulations.

Seneca-Cayuga Tribe of Oklahoma v. National Indian Gaming Commission, 327 F.3d 1019, 1036 (10th Cir. 2003). Moreover, the outcome of a public rulemaking process is especially entitled to deference:

Underlying this judicial deference to administrative agencies is the notion that the "rule-making process bears some resemblance to the legislative process and serves to temper the resultant rules such that they are likely to withstand vigorous scrutiny."

Seneca-Cayuga Tribe, 327 F.3d at 1036. In *Seneca-Cayuga Tribe*, the results of a public rulemaking were held entitled to "controlling weight." *Id.* 1043.

The EPA Certification, by regulation, required that DOE demonstrate compliance with the waste volume limits in the LWA:

(g) The Department shall demonstrate in any compliance application that the total inventory of waste emplaced in the disposal system complies with the limitations on transuranic waste disposal described in the WIPP LWA.

40 C.F.R. § 194.24(g). The compliance determination itself was carried out by another public notice-and-comment rulemaking. In proof of compliance, DOE submitted data to EPA showing its emplaced waste volumes, calculated based upon “final waste form” data, *i.e.*, using the volume of the outermost container when the waste is prepared for disposal. “These inventories are also described in terms of final forms and include stored, projected, anticipated, and total disposal volumes for CH-TRU and RH-TRU waste.” SRIC Ex. 14, CARD No. 24, Waste Characterization, at 24-97. The data were submitted in a public process and were subject to notice and comment rulemaking procedures and judicial review. LWA § 8(c)(2) & (3). EPA accepted the “final form” data: “EPA concluded that the CCA adequately described the inventory at the WIPP in terms of the units specified in the limitations of the LWA as they pertain to total RH activity and total volume . . .” *Id.* 24-98. A similar practice, except without judicial review, was followed in later certification submissions and EPA decisions. SRIC Ex. 17 (71 Fed. Reg. 18010, 18017); SRIC Ex. 20 (75 Fed. Reg. 70584, 70591-92); SRIC Ex. 22 (82 Fed. Reg. 33106, 33119).

DOE has no delegated authority to determine how waste volume is measured, nor has DOE proposed a method for measuring waste volume that is entitled to deference. DOE has no legal authority, but NMED does, and so does EPA. And there is a public and established interpretation of the volume limit that is entitled to deference—that volume should be determined based on the “final waste form,” *i.e.*, the waste after any necessary treatment and in any appropriate overpack. That interpretation has prevailed for decades, endorsed not only by DOE but also by NMED and by EPA.

And, importantly, DOE submitted “final waste form” volume data to EPA in the Compliance Certification proceeding to demonstrate compliance with the LWA volume limit. EPA accepted such data as proof of compliance. That proceeding was a public rulemaking process, with judicial review. Under precedents such as *Seneca-Cayuga Tribe*, the determination of waste volume based on final waste form is entitled to “controlling weight.”

6. DOE’s proposed interpretation would change a longstanding and controlling interpretation without any explanation, contrary to federal law.

Neither DOE nor NMED has offered a reasoned explanation for the change that DOE seeks in the interpretation of the LWA limit. Such an unexplained reversal of a longstanding position deserves no support:

A ‘settled course of behavior embodies the agency's informed judgment that, by pursuing that course, it will carry out the policies committed to it by Congress. There is, then, at least a presumption that those policies will be carried out best if the settled rule is adhered to.’” *Atchison, T. & S. F. R. Co. v. Wichita Bd. of Trade*, 412 U.S. 800, 807-808 (1973). Accordingly, an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance.

Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 41-42 (1983). The Court has explained that, when an agency changes its policy, it “may not, for example, depart from a prior policy sub silentio or simply disregard rules that are still on the books. . . . And of course the agency must show that there are good reasons for the new policy.” *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). Further, an agency must offer a more detailed justification than what would suffice for a new policy created on a blank slate. The Court offered examples:

Sometimes it must—when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account. . . It would be arbitrary or capricious to ignore such matters. In such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.

Id. A recent decision that enjoins construction of the Keystone XL pipeline states: “An agency must provide a detailed justification for reversing course and adopting a policy that ‘rests upon factual findings that contradict those which underlay its prior policy.’

FCC v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009).” *Indigenous*

Environmental Network v. U.S. Department of State, No. CV-17-29-GF-BMM (D. Mont., Nov. 8, 2018) (slip op. at 31).

In the 1980’s, the State of New Mexico made an agreement with the Department of Energy, as called for by Congress in the Authorization Act of 1979. Pub. L. No. 96-164, § 213. The State of New Mexico agreed to accept the construction and operation of WIPP on certain conditions, among which were the stated waste volume limits. Under that C&C agreement, the “prior policy” clearly has been to calculate waste volume based on the outermost container. That method was the premise of the agreed-upon volume limits in many operative documents in which DOE and the State participated, including the Consultation and Cooperation Agreement, the Second Modification of 1987, the LWA, and the HWA Permit. The method was manifestly known to environmentally-informed citizens.

Such agreement between the State and DOE had practical consequences for the government and the entire population of New Mexico. The duration of WIPP’s operation was a direct function of the disposal volume. The Final Environmental Impact Statement

of 1980 states that “the plant would be designed for an operating life of about 25 years. The facility would be operational in 1987.” SRIC Ex. 1, AR 180121.04 at 1-5. At the time of the LWA in 1991, DOE stated, and Congress understood that “[t]he total estimated cost over the 25-year operating life of the facility is in excess of \$2.5 billion.” SRIC Ex. 8; Sen. Rpt. at 18. The House Interior report stated that “[t]he Department of Energy (“DOE”) plans to operate the WIPP for 25 years...” SRIC Ex. 9A at 9 (House Interior Rpt.). The Permit itself projects a disposal phase of 25 years: “During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 m³ may be remote-handled (RH) TRU mixed waste.” at B-13. Again: “During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 m³ may be remote-handled (RH) TRU mixed waste... .” at G-5. Yet again: “The Disposal Phase for the WIPP facility is expected to require a period of 25 years beginning with the first receipt of TRU waste at the WIPP facility and followed by a period ranging from 7 to 10 years for decontamination, decommissioning, and final closure.” at G-6.

Based on DOE’s explicit representations as to volume limits and duration of the Disposal Phase, the New Mexico government and citizens expected that waste emplacement at WIPP would be finished by approximately 2025, and DOE would then proceed with closure of WIPP. At that point, the cost and time involved in the State’s oversight, regulation and monitoring of WIPP could start to wind down. More importantly, the period of exposure to the demonstrable risks to the State and its people

from WIPP's active management of radioactive waste (*See* Anastas testimony, at pp. 16-20, *supra*), would end. The existence of "serious reliance interests" tied to the limits on waste volume, and thus the period of risk, is manifest. The proposed new "LWA volume of record" system, if approved, would give DOE significant additional disposal volume, prompting DOE to demand additional disposal space, and causing DOE to extend the WIPP disposal phase by decades. But, although DOE acknowledges that a change is being proposed, it offers no justification for upsetting the expectations of the State and its citizens. There is no "reasoned explanation;" indeed, there cannot be, because the proposed new policy rejects DOE's commitments to the State and violates the law.

When asked, Mr. Kehrman could only state that DOE sought the modification to break the link between the LWA volume and the Permit volume, because "that connection creates limitations and will not allow WIPP to go beyond—to have a TRU mixed waste volume in excess of 6.2 million." 10/23/18 Tr. 212, ll. 17-21 (Kehrman). Put simply, DOE seeks the Permit modification so that it can introduce more waste than the LWA allows. Such an explanation presents no basis for a change in DOE's position on a key element of a bilateral agreement between DOE and the State. Mr. Maestas could offer no explanation of the purpose of the modification. 10/24/18, Tr. 121, ll 15-25, 122, ll. 1-17 (Maestas). It has been known since 1999 that waste containers might be overpacked, and it has been publicly reported several times (*See* SRIC Exs. 58, 59, and 60; 10/25/18 Tr. 192, ll. 1-5 (Hancock); (Hancock prefiled testimony at 10) that DOE has used disposal space inefficiently, and WIPP may be unable to dispose of the entire planned inventory. Such circumstances, which are the results of DOE's own actions, do not justify DOE's renunciation of its commitment to the people of New Mexico.

7. Additionally, the volume of waste at WIPP is limited by the C&C Agreement.

Even before issuance of the WIPP Permit in 1999, the C&C Agreement established capacity limits for WIPP, which were also based on container volumes. The First Modification (November 30, 1984) states:

In carrying out this stated mission, DOE and WIPP will comply, at a minimum, with all applicable state, federal, and local standards, regulations, and laws, including any applicable regulations or standards promulgated by the Environmental Protection Agency (EPA).

AR 180706.02, p. 37 of PDF (First Modification, at 6). The First Modification states further:

The DOE agrees that no defense RH-TRU with a surface dose rate in excess of 1000 rem per hour will be shipped to WIPP and that no more than 5% of the total volume of 250,000 cubic feet (or 12,500 cubic feet maximum) of defense RH-TRU shipped to WIPP will exceed 100 rem per hour surface dose rate.

AR 180706.02, p. 35 of PDF (First Modification at 4). Such language plainly commits DOE to a limit of 250,000 ft³ (or 7,080 m³) of RH TRU waste. The Second Modification to the C&C Agreement (July 28, 1987) maintains the same language from the First Modification (at 6) and adds the following:

Prior to receiving more than 15 percent by volume of the transuranic waste capacity of the Waste Isolation Pilot Plant, described as 6.2 million cubic feet of transuranic waste in the Waste Isolation Pilot Plant Record of Decision (46 Federal Register 9162, dated January 23, 1981), the Secretary of Energy shall demonstrate that the Waste Isolation Pilot Plant meets the applicable environmental standards for the disposal of radioactive waste established in Part B of the Environmental Protection Agency Standards (40 CFR 191, Part B), including the Assurance Requirements under such Part B.

AR 180706.02, pp. 56 and 57 of PDF (Second Modification at 4-5). Such language plainly commits DOE to abide by the capacity limit of 6.2 million ft³. Adoption of the C&C Agreement is directed by the WIPP Authorization of 1979. Pub. L. No. 96-164, §

213. The C&C Agreement's authority is recognized by the LWA, which states that "[n]othing in this Act shall affect the Agreement or the Supplemental Stipulated Agreement between the State and the United States Department of Energy except as explicitly stated herein." LWA § 21. The Stipulated Agreement refers to the attached C&C Agreement as "a binding and enforceable agreement between the Department of Energy and the State of New Mexico." at 3. The C&C Agreement is entered as a stipulation in settlement of the litigation commenced by the State in 1981 and would be enforceable as such. AR 180706.02, pp. 9-16 and 20 of PDF.

The C&C Agreement is independent of the Permit and the authority of the State under the HWA. It is not within the Secretary of the Environment's authority. It cannot be modified by any procedure involving the Permit. Neither DOE unilaterally nor NMED has any authority to change the C&C Agreement, nor authority over other State officials who are designated by the C&C Agreement and the Stipulated Agreement entered in the New Mexico Federal District Court. Needless to say, NMED should not attempt to modify the obligations of DOE under the C&C Agreement by means of a modification of the HWA Permit.

DOE has publicly acknowledged that it is bound by the limit upon the volume of RH waste that is contained in the C&C Agreement, *e.g.*

In addition, the Consultation and Cooperation Agreement (C&C Agreement) with the State of New Mexico limits the volume of RH-TRU waste to 7,080 cubic meters (250,000 cubic feet).

SEIS-II at 1-3 (1997), AR 180121.03. DOE is bound by the C&C Agreement as to RH TRU waste volume, and it is equally bound by that Agreement in its limitation on the

total TRU waste capacity at WIPP, namely: 6.2 million ft³. DOE has offered no reason that it should be released from its commitment.

Conclusion

The Permit Modification Request and the Draft Permit cannot be approved, because they lack both technical and legal basis. Under RCRA, NMED is required to issue, and DOE is required to obtain, a HWA disposal permit. The applicable regulations for a miscellaneous unit, 40 CFR § 264.601 *et seq.*, Subpart X, require the issuing authority to determine the volume of all of the waste to be disposed of, and thus to make the waste volume a part of the permit. NMED has done so. The HWA Permit sets the legal limit for waste volume. At the same time, the full scope of RCRA is maintained under the LWA, and no law endows DOE, a Permittee regulated by the Permit, with the authority to override that very Permit with some alternative calculation of the same matter—*i.e.*, maximum waste volume. NMED may, and must, give full force to RCRA's requirements, including the application of the waste volume limitations contained in the RCRA permit. Such legal requirement, and the nonexistence of any authority for DOE to make a different determination of emplaced volume, preclude the adoption of an alternative method for determining the volume of waste emplaced at WIPP. The C&C Agreement is an independent source of DOE's legal obligation to abide by the 6.2 million ft³ waste volume limit. The PMR must be denied.

Proposed Findings of Fact

1. WIPP was authorized in 1979 in Public Law No. 96-164, § 213. Therein, Congress authorized WIPP “to demonstrate the safe disposal of radioactive waste resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission.” The law specifically designates WIPP as a “pilot plant,” and states that its mission is to “demonstrate the safe disposal.” AR 180121.08, § 213(a). Thus, WIPP was not the sole disposal site for all TRU waste. 10/25/18 Tr. 181, ll. 1-2 (Hancock).
2. Regarding New Mexico’s authority, the 1979 Authorization Act provides:

“(b)(1) In carrying out such project, the Secretary shall consult and cooperate with the appropriate officials of the State of New Mexico, with respect to the public health and safety concerns of such State in regard to such project and shall, consistent with the purposes of subsection (a), give consideration to such concerns and cooperate with such officials in resolving such concerns. The consultation and cooperation required by this paragraph shall be carried out as provided in paragraph (2).

(2) The Secretary shall seek to enter into a written agreement with the appropriate officials of the State of New Mexico, as provided by the laws of the State of New Mexico, not later than September 30, 1980, setting forth the procedures under which the consultation and cooperation required by paragraph (1) shall be carried out. Such procedures shall include as a minimum –

- (D) the right of the State of New Mexico to comment on, and make recommendations with regard to, the public health and safety aspects of such project before the occurrence of certain key events identified in the agreement;
- (E) procedures, including specific time frames, for the Secretary to receive, consider, resolve, and act upon comments and recommendations made by the State of New Mexico; and
- (F) procedures for the Secretary and appropriate officials of the State of New Mexico to periodically review, amend, or modify the agreement.”

AR 180121.08, Section 213(b).

3. In 1981, the State of New Mexico sued DOE in Federal District Court Civil Action No. 81-0363 JB (D.N.M.). On July 1, 1981, after discussions, the State Attorney General and U.S. Attorney filed a Joint Motion to Stay All Proceedings, with a Stipulated Agreement, which was approved that day by the court. AR 180706.02, pp. 9-16 of PDF. As part of the Stipulated Agreement, the Governor of New Mexico and DOE Secretary signed a Consultation and Cooperation (“C&C”) Agreement, pursuant to the WIPP Authorization Act. AR 180706.02, pp. 22-30 and 51 of PDF. The Stipulated Agreement states:

This consultation and cooperation agreement shall be a binding and enforceable agreement between the Department of Energy and the State of New Mexico and shall expressly provide that it does not constitute a waiver by the State of any right it may have to judicial review of federal agency actions with respect to the WIPP project.” (at 3).

4. The C&C Agreement has since been modified. AR 180706.02, pp. 32-45 and 53-57 of PDF. The First Modification of 1984 states the volume limitation of 250,000 ft³ (equal to 7,080 m³) of remote-handled (“RH”) TRU waste (AR 180706.02, p. 35 of PDF) (November 30, 1984); the Second Modification of 1987 incorporates the total volume limitation of 6.2 million ft³ of TRU waste. AR 180706.02, p. 56 of PDF (August 4, 1987).
5. DOE wanted to open the facility in 1988, and WIPP land withdrawal bills were introduced in Congress starting in 1987. Five years of debate followed, addressing issues such as the requirements that WIPP would

meet before receiving wastes, the capacity of the facility, and the state and federal regulatory and oversight authorities. Hancock prefiled testimony at 3. The House passed the LWA on October 5, 1992, and the Senate did so on October 8, 1992. AR 180706.03.

6. The LWA clearly states:

CAPACITY OF WIPP.—The total capacity of WIPP by volume is 6.2 million cubic feet of transuranic waste.

AR 180706.03, § 7(a)(3).

7. Thus, Congress again determined that WIPP's mission was to demonstrate safe disposal of a specific amount of TRU waste—not more than that, and not all TRU waste. Hancock prefiled testimony at 4.

8. One of the bill's co-sponsors, Rep. Peter Kostmayer, emphasized WIPP's limited role:

Whether we are going to generate more nuclear waste is not the question. The question is we have got to get rid of the material we have. This facility will take only 20 percent of all the waste that we have. Still 80 percent will remain unburied. We have to deal with that.

AR 180914.32B at 32552 (c. 2).

9. Congress understood that the total capacity limit was based on container volumes. Senate Report 102-196 on S 1671, by the Senate Energy and Natural Resources Committee, specifically states: "According to DOE's current plans, a total of 4,525 55-gallon drums of transuranic waste would be used during the experimental program." SRIC Ex. 8 at 27, AR 180402.34Z. The House bill (HR 2637) reported by the House Armed

Services Committee, stated the volume limit both in cubic feet and in drums:

CAPACITY OF THE WIPP.—The total capacity of the WIPP by volume is 6.2 million cubic feet of transuranic waste. Not more than 850,000 drums (or drum equivalents) of transuranic waste may be emplaced at the WIPP.

SRIC Ex. 9B at 10, AR 180402.34BB, § 9(a)(3). House Report 102-241, Part 1, from the House Interior and Insular Affairs Committee, included capacity limits of 5.6 million ft³ of contact-handled (“CH”) waste and 95,000 ft³ of RH waste. (§ 7(a)). Preliminary introduction of waste for the Test Phase was limited to no more than 4,250 55-gallon drums. SRIC Ex. 9A at 16, 18, AR 180402.34AA. House Report 102-241, Part 3 from the House Energy and Commerce Committee included a dissent, opposing the capacity limits “of not more than 5.6 million cubic feet of contact-handled transuranic waste and 95,000 cubic feet of remote-handled transuranic radioactive waste in WIPP” (§ 7(a)) and Test Phase limits of 4,250 barrels or 8,500 barrels of waste. SRIC Ex. 9C at 42, AR 180402.34CC.

10. The capacity limits for the Test Phase (which was deleted in 1996) and the entire facility were based on the volume of 55-gallon drums (or drum equivalents): 850,000 drums times 7.3 cubic feet (55-gallon drum volume) equals 6,205,000 ft³. Mr. Kehrman, witness for the Permittees, concurred in this. 10/23/18 Tr. 168, ll. 10-20 (Kehrman).

11. The LWA confirms the State's authority under the Solid Waste Disposal Act. LWA § 9(a)(1)(C), AR 180706.03.⁸ In addition, the LWA affirms the C&C Agreement and states that it may only be modified by express language. LWA § 21.
12. Don Hancock of SRIC was present in Washington, D.C. during the discussions about the LWA and testified five times before congressional committees of jurisdiction. 10/25/18 Tr. 180, ll. 3-6 (Hancock). He stated that the capacity of the repository was a major issue in the negotiations. 10/25/18 Tr. 181, ll. 13-17 (Hancock). Congress understood that WIPP would not be the sole repository for transuranic waste. 10/25/18 Tr. 181, ll. 1-2 (Hancock). Also, Congress discussed waste capacity in terms of containers. 10/25/18 Tr. 181, ll. 16-21 (Hancock). Counsel for NMED inquired whether the elimination in the final LWA of container numbers, which had been specified in committee bills, meant that Congress intended "to not containerize the capacity." Mr. Hancock stated:

Absolutely false. And I know that for a fact, because as I say, I was there in the discussions about the drafting of the bill, and the discussion was, do we need the drum equivalents or not, and it was concluded they didn't need them.

10/25/18 Tr. 232, ll. 15-19 (Hancock).

⁸ SRIC and other parties had advocated and litigated for that authority. In *State of New Mexico Ex. Rel. Udall v. Watkins* and *Environmental Defense Fund v. Watkins*, the State, SRIC, and other parties argued that RCRA applied to the WIPP Test Phase, a position that would prevent waste emplacement without a permit. The District Court granted summary judgment in favor of that argument. 783 F. Supp. 633 (D.D.C. 1992). That decision was reversed by the Court of Appeals. 969 F.2d 1122 (D.C.Cir. 1992).

13. The C&C Agreement was signed in 1981, and by 1991 the Second Modification (1987) had also been signed, which recited the volume limit of 6.2 million ft³, a fact of which Congress was also aware. 10/25/18 Tr. 182, ll. 17- 183, l. 5; Tr. 184, ll. 19-185, l. 7 (Hancock).
14. The application of RCRA was also important to Congress, since litigation had already affirmed RCRA's application, and the Federal Facility Compliance Act (Public Law No. 102-386, AR 180402.48C) was also before Congress. 10/25/18 Tr. 187, ll. 3-11 (Hancock). As for the idea that the "LWA volume" could be a different amount from the "RCRA volume," Mr. Hancock stated: "[I]t's stunning to me for anybody to think that there's a separation in the law between a WIPP capacity limit and a RCRA capacity limit. Everybody in Congress at the time knew that those were one and the same thing." 10/25/18 Tr. 188, ll. 5-9 (Hancock).
15. It is uncontroverted in the record that it has always been true that TRU waste volume at WIPP has been measured by the gross internal volume of the waste container. In the Final Environmental Impact Statement ("FEIS") of 1980, DOE stated that "The data for TRU waste presently in retrievable storage are the container volume." SRIC Ex. 1, AR 180121.04 at E-25. The 1980 FEIS stated that the design capacity was 6.2 million ft³. SRIC Ex. 1, AR 180706.03 at 2-17. The FEIS (AR 180121.04) identified the planned waste inventory:

This EIS analyzes the alternatives for disposing of the readily retrievable waste expected to be stored in Idaho through 1990. This waste includes the 2.4 million cubic feet shown in

Table 2-3 for 1986 plus an additional two-thirds of the 0.25 million cubic feet generated annually between 1986 and 1990. In addition, the WIPP would be designed to accommodate all defense TRU waste generated between 1990 and 2003.

SRIC Ex. 1 at 2-18. Those quantities add up to approximately 6.2 million ft³ cubic feet. 10/23/18 Tr. 168, ll. 10-20 (Kehrman). The 1981 Record of Decision, based on the FEIS, carried forward these capacity figures. SRIC Ex. 2 at 9163, c. 1, AR 180121.02.

16. The 1990 Final Supplement Environmental Impact Statement (DOE/EIS-0026-FS, January 1990 (“SEIS-I”)) again used the volume of the waste container as the measure of the volume of emplaced waste:

Using a drum volume of 0.2 cubic meter gives a drum equivalent capacity of 880,000 for CH-TRU waste, about 4 percent higher than the values suggested by the commenters. This number is calculated by dividing the CH TRU waste capacity of the WIPP, 6.2 million cubic feet, by 0.2 cubic meter and 35.3 cubic feet per cubic meter. The result is then rounded up to two significant digits.

SRIC Ex. 52 at 246. The Environmental Evaluation Group (“EEG”) had commented on the 1989 Draft SEIS-I that DOE had erroneously calculated WIPP’s capacity, by assuming that 55-gallon drums were 80 percent full, and causing WIPP’s 6.2 million cubic feet capacity to be contained in “a fictitious number of drums that cannot fit into the WIPP.” Instead, the “design capacity of the WIPP is based upon the total volume of emplaced containers and not their contents.” *Ibid.* In response, in the final SEIS-I DOE dropped the 80 percent fill ratio, “because the calculations based on this assumption greatly overestimated the volume of waste to be emplaced in the WIPP.” SRIC Ex. 53 at B-3. The SEIS-I reiterates that the contact-

handled (CH) waste design capacity is 6.2 million ft³. AR 180914.32C at 3-4.

17. To support the WIPP HWA Permit application and for other needs, DOE published a WIPP Transuranic Waste Baseline Inventory Report (“TWBIR”) in June 1994. Revision 2 (DOE/CAO-95-1121) included all DOE TRU waste. AR 180402.34G at xi. The TWBIR calculated all waste volumes in “Final Waste Form,” which was defined as the gross internal volume of the containers. SRIC Ex. 10 at 1-5; 10/23/18 Tr. 175, ll. 8-14 (Kehrman).

18. The 1997 Disposal Phase Supplemental Environmental Impact Statement (DOE/EIS-0026-S-2, September 1997, “SEIS-II”) again used the volume of the waste containers to measure the volume of emplaced waste:

[T]he waste volumes used for the SEIS-II analyses are estimates of “emplaced waste volumes” (the volumes of the containers that TRU wastes would be emplaced in), not actual waste volumes inside the containers, except as noted. DOE recognizes that virtually all containers would contain some void space and that some containers may be only partially filled (for instance, to meet limits on weight or thermal power for transportation).

AR 180121.03 at 2-9.

With the RH-TRU waste volume limit at WIPP of 7,080 cubic meters (250,000 cubic feet), the volume disposed of was calculated using the capacity of the waste containers rather than the volume of the waste within the containers.

SRIC Ex. 11, AR 180121.03 at A-13, -14. DOE emphasized the conservatism of its measurements of waste volume:

CONSERVATISM OF TRU WASTE VOLUME ESTIMATES:

TRU waste inventory estimates, as used throughout SEIS-II, embody many conservative assumptions to ensure bounding analyses of maximum, reasonably foreseeable impacts. The following reflect some of the conservative assumptions.

* * *

While the LWA and C&C Agreement include limits on the volume of TRU waste that can be emplaced, there is considerable uncertainty concerning how much of a container's volume is made up of TRU waste and how much is void space. Many of the containers would include a great deal of void space, particularly for RH-TRU waste; the actual volume of waste in a drum or cask, therefore, may be much less than the volume of the drum or cask. For the purposes of analysis in SEIS-II, the volume of the drum or cask is used, as if the drum or cask were full without void space. (SRIC Ex. 11 at 3-8; AR 180121.03).

Thus, the SEIS-II used container volumes. AR 180121.03 at 2-9, 3-8, A-1

19. In its annual budget requests, DOE has reported to Congress the volume of Contact-Handled (“CH”) emplaced at WIPP, compared to the LWA capacity limit. DOE’s reports have been based on the gross internal volume of the outer container, *i.e.*, the same value as is reported to NMED under the Permit. AR 180402.34H to V.
20. DOE is also required to report the volume of waste emplaced annually to the Environmental Protection Agency (“EPA”). These Annual Reports calculate the CH waste volumes based on the outer container volume. SRIC Ex. 55 at 17. Numerous other DOE documents use the gross internal volume of the outer container to calculate TRU waste volumes. For example, the calculation for the total volume of legacy TRU waste planned for disposal is approximately 131,000 m³, based on container volumes. AR 180402.34W at 13.

21. DOE's Annual Transuranic Waste Inventory Report ("ATWIR") shows "final form" volumes as in earlier Baseline Inventory Reports, and also "outer container volume," which is the same as the gross internal volume of the outer container. The current (2017) Annual Inventory Report states: "In this report, CH-TRU waste volume in overpacks reflects the outer container volume and the RH-TRU waste volume in overpacks reflects the inner container volume." AR 180402.34X at 18.
22. WIPP has used outer container volumes, as in the Permit, in its operating contracts, including the contract with NWP. The original NWP contract from 2012 included Programmatic Goal 3: "Complete disposition of 90 percent of the legacy transuranic waste by the end of fiscal year 2015" from the Roadmap for EM's Journey to Excellence. AR 180402.34W at 12-13; AR 180402.34Y at C-3.
23. In the current PMR (AR 180121) and the Response to Technical Incompleteness Determination (AR 180706 ("TID")), the Permittees assert that they have based waste volume on the assumption of full waste containers. PMR at 8; TID at 6. That is not a true statement. To be accurate: waste volume was calculated based on the volume of the container.
24. The gross internal volume of the outer container has consistently been used by DOE for calculating the volume of waste emplaced that counts against the WIPP legal capacity limit, as well as for numerous other purposes. Mr. Kehrman, a witness for the Permittees, agreed that in

performance assessments DOE had conservatively assumed that waste containers were full, but DOE personnel knew that the containers were not actually full. 10/23/18 Tr. 211, ll. 16-17 (Kehrman).

25. At the hearing, the Permittees argued that “volume overestimates the amount of waste actually disposed by about 30 percent, due to the air space that's contained in the outermost container and the non-waste materials that are also placed into that outermost container for various purposes.” 10/23/18 Tr. 23, ll. 1-5; Tr. 48, ll. 12-14, 20-22; Tr. 59, ll. 15-17; Tr. 60, ll. 19-20; Tr. 63, ll. 22-25; Tr. 69, ll. 7-9; Tr. 76, ll. 5-8; Tr. 132, ll. 8-9; Tr. 207, ll. 16-21; Tr. 208, ll. 10-12; Tr. 209, ll. 21-22; Tr. 211, ll. 19-21 (Kehrman). As to the asserted overestimates, DOE has used ten-drum overpacks (“TDOPs”), because they make more efficient use of the underground disposal space than other containers, including 55-gallon drums and standard waste boxes. SRIC Ex. 6 at 400, ll. 1-5 (Kehrman). Thus, some overpacks, rather than leaving empty space in the underground, allowed more waste to be emplaced in Panel 2 than could be accommodated in the design capacity by other containers. SRIC Ex. 6 at 400, ll. 6-12 (Kehrman). As a result of those efficiencies, the volume capacity of subsequent panels was increased in the Permit. SRIC Ex. 6 at 400, ll. 17-18 (Kehrman).

26. Mr. Kehrman also conceded that much of the air within overpacks contains waste in the form of volatile organic compounds, regulated by the Permit (Table 2.3.4), and that a significant number of waste containers

were placed into TDOPs to contain that waste with air that contains carbon tetrachloride. 10/23/18 Tr. 131, ll. 1-25 (Kehrman). Mr. Zappe stated: “the internal volume of the overpack will undoubtedly have an opportunity to have volatile organic compounds, which are waste, be present in that void space. That air space.” 10/25/18 Tr. 107, ll. 15-19 (Zappe). But if the PMR were approved, air contaminated with waste in overpacks would no longer be counted as waste emplaced at WIPP. 10/25/18 Tr. 108, ll. 2-8 (Zappe).

27. The LWA requires that EPA certify “whether the WIPP facility will comply with the final disposal regulations.” LWA § 8(c)(2), AR 180706.03. That certification is required before the DOE “may commence emplacement of transuranic waste underground for disposal at WIPP.” LWA § 7(b)(1), AR 180706.03. EPA’s 1999 certification was subject to notice-and-comment rulemaking requirements and judicial review. LWA § 8(d)(1). To show compliance with the LWA volume limit, pursuant to 40 C.F.R. § 194.24(g), DOE in its Certification Application provided EPA with waste inventory data based on “final form” container volume. SRIC Ex. 14 at 24-97. EPA accepted the “final waste form” container volume data to demonstrate compliance with the LWA limits. SRIC Ex. 14 at 24-98; 63 Fed. Reg. 27354, 27373. The same process of submission of final waste form data and EPA approval took place in 2006, 2010, and 2017 recertifications. SRIC Ex. 17, 20, 22. Mr. Kehrman concurred that final

waste form data had been submitted to and accepted by EPA. 10/23/18 Tr. 192, ll. 16- 195, l. 19; (Kehrman).

28. In their HWA Permit Application (1996), the Permittees included the gross internal volume of the waste containers, which was incorporated into the original Permit and remains in the current permit. AR 180914.37I Section 3.3.1. In the PMR, Permittees acknowledge: “At the time the Permittees prepared the Part B Permit Application, the WIPP LWA limit and the HWDU [hazardous waste disposal unit] limit were considered to be the same.” AR 180121 at 7.
29. The LWA capacity limit of 6.2 million ft³ has always been incorporated into the WIPP Permit. The limit was included in the Permittees’ Part A application. AR 180914.37I (Original Permit Attachment O, now Attachment B.). The capacity limit also is now included in Table 4.1.1, Attachment B, Attachment G1, Attachment G1c, Attachment H1, and Table J3. *See also* 10/24/18 Tr. 86, ll. 3-7 (Maestas).
30. The HWA Permit, from its inception in 1999 to date, has approved use of overpacks for storage and disposal. 10/25/18 Tr. 104, ll. 11-24 (Zappe); 189, ll. 24-25 (Hancock). In some cases, the Permit may require use of an overpack. Attachment A1-1c(1), Attachment A1-1d(2), Attachment A1-1d(4), Attachment A1-1e(1), Attachment A2-2b, Attachment A4-3, Attachment D-4b, Attachment D-4e, and Attachment D-4e(3). DOE also may use its management authority to use overpacks for other reasons. 10/23/18 Tr. 117, ll. 8-23; Tr. 129, l. 22-130, l. 14; Tr. 130, l. 23-131, l. 25

(Kehrman). The gross internal volume of those overpacks has always been the measure of waste emplaced under the Permit and the LWA. Kehrman prefiled testimony at 2, 10/23/18 Tr. 61, ll. 6-23 (Kehrman); 10/24/18 Tr. 117, ll. 1-6 (Maestas).

31. Throughout the 1999 WIPP Permit hearing, NMED reiterated its authorities under the HWA and the LWA. The Hearing Officer's Report (AR 180914.37T), Findings and Fact and Conclusions of Law, as adopted by the NMED Secretary in issuing the Permit (AR 180914.37W), found that NMED did have those authorities.
32. NMED has enforced the calculation of capacity volumes based on outer container volume. On August 8, 2011, the Permittees submitted a Class 1 modification to revise Table 4.1.1 to reflect final waste volumes in Panel 5. SRIC Ex. 32, AR 180914.32H. The Permittees erroneously reported the RH volume as "5,403 ft³ (153 m³)." NMED responded on November 9, 2011, correcting the stated volumes:

NMED changed the final volume for remote-handled (RH) waste in Panel 5 to 8,300 ft³ (235 m³) to maintain consistency with the calculations used to report the RH volume for Panel 4. In their submittal, the Permittees reported the RH volume based on the volume of the containers within the RH canisters emplaced in Panel 5. The corrected RH volume is based on the volume of the RH canisters (264 canisters * 0.89 m³ per canister = 235 m³)."

SRIC Ex. 33 at 1, AR 180914.32I.

33. In 19.5 years of operations—March 26, 1999 to September 29, 2018—less than 54 percent of that 6.2 million ft³ (175,564 m³) capacity limit has been emplaced at WIPP. SRIC Ex. 56, 10/25/18 Tr. 192, ll. 1-8 (Hancock).

34. Numerous current proposals, reflected in National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (“NEPA”), documents, analyze the expansion of WIPP beyond its statutory mission of disposal of a limited amount of defense TRU waste. AR 80402.34B through F. Such proposed expansions, which have not been authorized by Congress, are an apparent motivation for the present modification request. The possible additional waste includes high-level waste now stored at the Hanford Reservation, commercial waste stored at West Valley, New York, surplus Plutonium, and Greater than Class C waste. 10/25/18, Tr. 193, l. 1 -194, l. 15 (Hancock).

35. Permittees’ failure to use all of the available WIPP CH TRU disposal capacity, and the failure to use available RH TRU disposal capacity, have meant that the TRU waste actually disposed of at WIPP would be much less than the authorized 6.2 million ft³, even based on outer container volume. SRIC Ex. 57. In 2003, the DOE Inspector General (IG) reported:

If current waste emplacement practices continue, by 2020, the repository, as now configured, will not be able to accommodate 980 planned shipments of remote-handled TRU waste. The Department has recognized the potential space problem and identified some alternatives, but has not yet formally planned for the resolution of this issue.

SRIC Ex. 58 at 1. In 2013 the DOE IG reported:

We found that while EM had made progress in meeting its operational disposal goals, it was not on track to meet its goal to dispose of 90 percent of the Department's legacy TRU waste by the end of FY 2015. In particular, EM faces a number of challenges in meeting its planned 90 percent waste disposal goal by 2015. Additionally, without further modifications to the repository or

existing waste disposal practices, WIPP may not have capacity for disposal of the current RH inventory.

SRIC Ex. 59 at 1-2. In 2017, the Government Accountability Office

(“GAO”) reported:

DOE does not have sufficient space at WIPP to dispose of all defense TRU waste....

- DOE’s TRU waste management plan, which includes planning for WIPP, covers a 5-year period and does not address possible expansion. Moreover, DOE’s TRU waste management plan does not include a schedule for expanding DOE’s disposal space before existing space is full.

- Expanding WIPP’s disposal space will require regulatory approval that is expected to take several years. However, DOE modeling that is needed to begin the regulatory approval process is not expected to be ready until 2024.

SRIC Ex. 60 at inside cover.

36. A principal purpose of RCRA is protection of “human health and the environment.” 42 U.S.C. § 6901(b)(2). George Anastas, a professional nuclear engineer, environmental engineer, health physicist, and former member of the Environmental Evaluation Group (“EEG”), testified about WIPP’s recent performance from the standpoint of environmental safety and health and how that performance bears on the PMR. Mr. Anastas stated that “WIPP is suffering from a wide scope of safety deficiencies, many of which have been recurring, and are still open.” 10/25/18 Tr. 133, l. 13-15 (Anastas). He advised that, in considering the PMR, the NMED take a

holistic approach to any permit modification, including roof falls, electrical deficiencies, fire in the underground, freezing of fire equipment, and other items identified in the Defense Nuclear Facilities Safety Board be taken care of before any other permit modifications are put in place. Because not only are the workers placed in jeopardy, but the public is, and environment is, as well.

10/25/18 Tr. 133, l. 21-134, l. 5 (Anastas). *See also* 10/25/18 Tr. 171, ll. 8-25, Tr. 172, ll. 12-23 (Anastas); 10/25/18 Tr. 199, l. 21 -200, l. 22 (Hancock).

37. Mr. Anastas had concluded that “DOE and NWP do not possess the skills and commitments that would justify expanding the operations of WIPP beyond the limits contained in the Land Withdrawal Act and undertaking new responsibilities in managing the measurement and emplacement of additional new waste volume.” Anastas prefiled testimony at 3.

38. Mr. Anastas identified the following areas of concern:

Operating incidents: Mr. Anastas stated, as is publicly known, that WIPP suffered from an underground salt truck fire and, soon after, a waste drum detonation in February 2014. Both of these incidents were closely examined by DOE accident investigation committees, which delivered extensive reports. SRIC Exs. 42, 45, 48.

The salt truck fire was caused by a failure of maintenance that led to accumulation of combustibles and the fact that the automatic fire extinguishing system had been disconnected. Anastas prefiled testimony at 10-13. Thirteen workers were treated for smoke inhalation. *id.* 11. An investigation by DOE identified causes to be the failure of the management and operations contractor to recognize and mitigate the hazard of fire in the underground, including by inspections and removal of combustible buildup. *id.* 11-12. The investigation report identified ten

separate organizational failures, e.g., in training, worker qualifications, emergency response execution. *id.* 12-13.

The underground detonation in a waste drum and release of radioactivity occurred on February 14, 2014. The drum lid was “blown half off.” 10/25/18 Tr. 158, l. 7-8 (Anastas). The event contaminated 2000 feet of underground workings, and radiation blew 2150 feet farther up the exhaust shaft, partially bypassed the filter bank, and escaped to the atmosphere. Plutonium and Americium were detected in air thousands of feet from the release point. Several WIPP workers were contaminated. The cost of the detonation and its consequences was about \$1 billion. The ventilation system had an automatic filter system linked to continuous air monitors, but the linkage had been disabled. 10/25/18 Tr. 137, l. 2 -139 l. 25 (Anastas). The contamination in the underground was severe and caused the abandonment of the southern part of the facility. 10/25/18 Tr. 199, ll. 2-14 (Hancock). Mr. Anastas pointed out that the prospect of a drum detonation had been analyzed by the EEG in 1991 SRIC Exs. 43 and 44. DOE had responded that such an occurrence could not happen. 10/25/18 Tr. 149 ll 14-17 (Anastas). The SEIS-II of 1997 assigned a very low probability to such an occurrence, namely, once in 10,000 years. 10/25/18 Tr. 150 ll. 14-16, Tr. 151, ll. 8-12 (Anastas). Nevertheless, the drum detonation happened in 2014. Numerous drums from the same batch were sent to storage at Waste Control Specialists in Andrews, Texas. 10/25/18 Tr. 150 ll. 17-21 (Anastas).

Investigators found that causes included widespread a lack of management initiative in addressing longstanding deficiencies, neglect of maintenance of important elements of the plant, and the failure to maintain a strong safety culture at WIPP. Anastas prefiled testimony 15-19. The DOE investigators reported as follows concerning the safety attitude prevailing at WIPP:

Repeat deficiencies were identified in DOE and external agencies' assessments, e.g., Defense Nuclear Facilities Safety Board (DNFSB), emergency management, fire protection, maintenance, CBFO oversight, and work planning and control, but were allowed to remain unresolved for extended periods of time without ensuring effective site response.

SRIC Ex. 42 at ES-4. The Phase 2 Radiological Release Event report identified the "systemic root cause" as a failure by Los Alamos National Laboratory ("LANL") and DOE Carlsbad Field Office ("CBFO") "to ensure that LANL had adequately developed and implemented repackaging and treatment procedures that incorporated suitable hazard controls and included a rigorous review and approval process." SRIC Ex. 48 at ES-7. Twelve contributing causes were identified. *id.*

LWA violation: Mr. Anastas reported an occurrence in September 2013, when DOE personnel at Argonne National Laboratory packaged some spent fuel and high level waste and sent it to WIPP, which accepted it, contrary to § 12 of the LWA. Specifically, pieces of spent fuel from some U.S. commercial reactors, a Belgian reactor, and a CANDU reactor were assembled in pipe overpack containers and shipped to WIPP. Also, reprocessing waste from a UREX reprocessing campaign was packaged

and sent to WIPP. 10/25/18 Tr. 135, l. 22-136, l.9 (Anastas); Anastas prefiled testimony at 18. *See also* SRIC Ex. 50 at 3-7.

Roof falls: There were roof falls in Panel 3 and 4 access drifts in September and October 2016 and in Panel 7 Room 4 in November 2016. 10/25/18 Tr. 143, ll. 1-3 (Anastas); Anastas prefiled testimony at 4. These involved large blocks of salt weighing several tons. Mr. Anastas observed that DOE seemed to think that it was a solution simply to cordon off the areas where roof falls occurred. But, he explained, “That doesn’t solve the problem.” 10/25/18 Tr. 172, ll. 17-20 (Anastas). Rather, “You have got to figure out why the roof falls are occurring, and take steps to assure that it does not.” *Id.* at ll. 21-23 (Anastas).

Electrical problems: There has been a continuing unavailability, for several months, of one of the electrical buses that serves the underground, leaving only one available power source. 10/25/18 Tr. 142 ll. 2-5 (Anastas). Mr. Anastas explained that, for nuclear facilities, it is important to have more than one electrical source at all times. *id.* ll. 5-8 (Anastas). *See also* Anastas prefiled testimony at 7.

Ventilation problems: DNFSB noted in a March 2018 report that WIPP’s new Supplemental Ventilation System (“SVS”) was not integrated with the continuous air monitor system. Apparently, CBFO regards the interface, which would shift the ventilation system to filter mode if radiation is detected, to be outside the design scope of the SVS. 10/25/18 Tr. 145, ll. 9-13 (Anastas). The problem could lead to a release of

radioactivity to the environment. *id.* at 147, ll. 5-12 (Anastas). DNFSB itself drew this problem to the attention of CBFO. *id.* 145, ll. 22-25 (Anastas). In addition, CBFO in May 2018 called upon NWP to verify that underground ventilation conforms to the facility plan. *id.* at 146, ll. 5-7 (Anastas). NWP gathered some data, but it was unusable. The issue has not been resolved. Other ventilation issues are outlined in prefiled testimony. Anastas prefiled testimony at 5, 6, 8.

Fire safety: The DOE Deputy Assistant Secretary for Safety, Security, and Quality Assurance sent a memo on November 21, 2017, requiring WIPP to prepare a plan for prioritizing and funding its fire protection issues. 10/25/18 Tr. 143, ll. 14-18 (Anastas). There had been inadvertent discharges of fire suppression equipment due to record-keeping errors. One recent occurrence was the freezing of water lines, damaging equipment and rendering it inoperable. The water line to the decontamination trailer froze; this was noted in a February 2018 DNFSB report. *id.* at 144, ll. 19-22 (Anastas). The previous decontamination trailer had frozen three years previously. *id.* at ll. 12-13 (Anastas). Other fire protection issues were raised by the DNFSB. Anastas prefiled testimony at 4.

Mr. Anastas has visited one hundred or more nuclear sites around the world, including WIPP. When asked whether he would go into the WIPP underground in its present condition, he said: “In all capitals, bold, NO. Six exclamation points.” 10/25/18 Tr. 174, ll. 24-25 (Anastas).

39. The nature of the PMR is not obvious, nor is the nature of the changes that NMED made to DOE's proposal to arrive at the Draft Permit. Zappe prefiled testimony at 3-5. In the PMR, DOE asks NMED to introduce into the Permit new definitions that distinguish between "TRU mixed waste volume" and "TRU waste volume of record." AR 180121, PMR at 3. These two different definitions would apply to the *same* waste—the defense TRU waste disposed of at WIPP. "TRU mixed waste volume" would mean the volume of the outermost disposal container of waste and would be "reported by the Permittees relative to the maximum capacities in Permit Part 4, Table 4.1.1." *Ibid.* "TRU waste volume of record" is defined as the "volume of TRU waste inside a disposal container" and is "reported, separately from the Permit, by the DOE pursuant to the WIPP Land Withdrawal Act total capacity limit of 6.2 million ft³." *id.* at 4.
40. The Permittees also propose changes in Table 4.1.1. Currently, this table lists each underground panel, Panels 1 through 8. As to each, it shows in one column the "Maximum Capacity" of each panel for CH TRU waste and RH TRU waste. In a separate column, it shows the "Final Volume"—*i.e.*, the total amount of waste actually emplaced, as calculated after emplacement by summing the volume of each outer container of waste that has been emplaced. The Final Volume for each panel is reported to NMED by DOE upon panel closure pursuant to Permit Section 6.10.1.
41. The Permittees propose that the column heads be changed to read "Maximum TRU Mixed Waste Capacity" and "Final TRU Mixed Waste

Volume,” and a footnote be added to state that the Final TRU Mixed Waste Volume is based upon outer container volumes. PMR at 4.

42. The PMR also includes changes to provisions concerning closure. Section 6.5.2 would call for closure of the facility “after the HWDUs have been filled” and DOE would report the final TRU mixed waste volume. PMR at B-5. Section G-1, Closure Plan, would be revised to state that “final facility closure is defined as closure that will occur when all permitted HWDUs are filled or have achieved their maximum capacities as outlined in Permit Part 4, Table 4.1.1.” PMR at B-14. Similar changes are proposed in Sections G-1c, H-1a(2), H1, and Table J-3 to eliminate references to the total maximum capacity and to identify the maximum capacity for “TRU mixed waste” as the sum of the permitted capacities for HWDUs.

43. The Permittees have announced a new CBFO Management Policy, which will contain DOE’s new method of calculating the volume of TRU waste in a container. See TID Response. AR 180706. Permittees’ Exhibit A is a Draft Policy, however. This document shows one way in which DOE might calculate LWA TRU waste volume. The Management Policy was not previously submitted with the PMR, and although Mr. Maestas of NMED initially said that DOE was bound to calculate waste volume based on the volume of the innermost container, he later admitted that DOE was not constrained at all in how it might calculate the volume of emplaced waste, and in practice neither NMED nor the parties to this proceeding

would have an opportunity to review or approve any change in the policy.
10/24/18 Tr. 103, ll. 11-19; Tr. 104, ll. 6-16; Tr. 127, ll. 16 – 128, ll. 2, Tr.
132, ll. 20-25 (Maestas).

44. In issuing a Draft Permit, NMED has changed the proposed definition of
“LWA TRU Waste Volume” to call it:

the volume of TRU waste inside a disposal container. This volume
is tracked and reported by the DOE internally relative to the WIPP
Land Withdrawal Act total capacity limit of 6.2 million ft³
(175,564 m³ (Pub. L. 102-579, as amended). For informational
purposes, the LWA TRU Waste Volume is included in Table 4.1.1.

Draft Permit at 1-6. In addition, NMED would include in Table 4.1.1 an
additional column headed “Final LWA TRU Waste Volume” to reflect the
volumes of LWA TRU waste, as newly defined, calculated by DOE and
reported for each panel. Draft Permit at 4-2 and 4-3. Further, NMED
would include, as a basis for facility closure, attainment of the LWA
maximum capacity of 6.2 million ft³. Draft Permit at G-2.

45. The concept of a “LWA volume of record” introduces a volume number
that is entirely within DOE’s unregulated discretion. Draft Permit §1.5.22.
Mr. Kehrman stated that the method for determining LWA TRU waste
volume is an “internal” matter subject to determination by DOE. 10/23/18
Tr. 146 ll. 22-24 (Kehrman). Mr. Maestas, witness for NMED, testified
that the value of “LWA TRU waste volume” is entirely within DOE’s
power to determine. 10/24/18 Tr., 87, ll. 13-19, Tr. 103, ll. 11-19, Tr. 132,
ll. 20-25 (Maestas). DOE can change its method of calculation without

notice to or concurrence by NMED. 10/24/18 Tr. 127. 1. 22 – 128, 1. 2 (Maestas).

46. In the Permittees' PMR and in NMED's Fact Sheet and Draft Permit, neither the Permittees nor NMED has articulated any new information or rationale to support a departure from the way compliance with the LWA capacity limit has historically been determined, based on the volume of the outer container, nor any justification to expand WIPP's capacity.

47. Closure is governed by Permit § G-1, Closure Plan, which would say in the Draft Permit as follows:

For the purposes of this Closure Plan, final facility closure is defined as closure that will occur when all permitted HWDUs are filled or have achieved their maximum capacities as outlined in Permit Part 4, Table 4.1.1 or when WIPP achieve its capacity of 6.2 million cubic feet (ft³) (175,564.m³) of Land Withdrawal Act (LWA) TRU waste volume.

Draft Permit § G-1. Mr. Maestas testified that, under the PMR, the "Total" quantities shown in Table 4.1.1 for either Maximum TRU Mixed Waste Capacity or Final TRU Mixed Waste Volume *could exceed* 6.2 million ft³—the statutory limit. 10/24/18 Tr. 160, ll. 5 – 161, 1. 13 (Maestas). Thus, the amounts listed in those columns would not trigger closure. The fifth column, Final LWA TRU Waste Volume, is entirely within DOE's control. 10/24/18 Tr. 161, ll. 14-20) (Maestas). Thus, NMED takes the position that DOE alone would determine when WIPP must close.

48. As modified, the Permit would contain three columns in Table 4.1.1 showing the volume attributable to each panel under three different

measures, and the Permit would not say which column determines when the maximum capacity has been reached, requiring closure. 10/25/18 Tr. 220, ll. 17- 221 l. 3; Tr. 222, ll. 5-11 (Hancock). The PMR would deny NMED the power, and the duty, to close WIPP when it reached the 6.2 million ft³ limit: “The RCRA Land Withdrawal Act capacity limit would not become something that the Environment Department is enforcing, but they would be dependent on whatever DOE decides to calculate it as, however it decides to calculate it.” 10/25/18 Tr., ll. 14-18 (Hancock). Closure would not occur when all of the planned panels are full, because DOE intends to seek further disposal space. *id.* 191, ll. 19-25; Tr. 192, ll. 19-22 (Hancock).

49. DOE has calculated that the use of the outer container volume in calculating waste volume emplaced at WIPP causes the volume of emplaced waste to be overstated by 30% compared to the value that DOE assigns to “LWA TRU waste volume.” 10/23/18 Tr. 209, ll. 3-8 (Kehrman).
50. DOE plans to recalculate the previously-emplaced volume retroactively, going back to the start of WIPP’s operation in 1999. 10/23/18 Tr. 214, ll. 14-18 (Kehrman). Summing the emplaced amounts now listed in Table 4.1.1 as Final TRU Mixed Waste Volume in Panels 1 through 6, and adding the future volumes, *i.e.*, Maximum TRU Mixed Waste Capacities, for Panels 7 and 8, the total is 4,579,200 ft³. Draft Permit, Table 4.1.1. Reducing this emplaced volume by 30%, the result is 3,205,440 ft³ of

emplaced waste. Thus, of the statutory limit of 6.2 million ft³, there would remain 2,994,560 ft³ of unfilled capacity—a quantity of waste that would call for more than four additional panels of the current capacities.

51. DOE plans to file additional PMRs, asking NMED for authority to excavate more disposal space. 10/23/18 Tr. 53, ll. 1-24; 215, ll. 15-19; 217, ll. 9-10 (Kehrman); Kehrman prefiled testimony at 3 and 16. Mr. Maestas had the same expectation. 10/24/18 Tr. 175, ll. 3-9 (Maestas). A facility enlarged to contain nearly three million ft³ of additional TRU waste would be much larger than the WIPP described in three Environmental Impact Statements, one certification and three recertifications by EPA, and the RCRA Permit issued by NMED. See, *e.g.*, Draft Permit Att. B, Permit Application Part A.
52. While DOE previously projected that waste emplacement would continue for about 25 years, the changes wrought by the PMR and Draft Permit would mean that WIPP will scarcely be half full when Panels 1 through 8 are filled, indicating that New Mexico must endure approximately 20 additional years of waste transportation and operations at WIPP.
53. DOE could not accurately recalculate the volume of emplaced waste, using only the volume of inner containers, because the WIPP Waste Data System (“WDS”) does not record, *e.g.*, containers for which the volume of the overpack should be counted as waste volume, such as those that were overpacked because of a loss of container integrity, or containers that

vented hazardous waste into the interior of the overpack, or similar situations. 10/25/18 Tr. 190, l. 13- 191, l. 1 (Hancock).

54. Mr. Walentine, testifying for the Permittees, stated that the WDS did not track breached containers, not even container LA00000068660, which released contaminants on February 14, 2014. 10/24/18 Tr. 45. ll. 19-25 (Walentine). *See also* SRIC Ex. 26. The reason that overpacks are used in a particular case is not entered in the WDS. 10/24/18 Tr. 23, ll. 12-16 (Walentine). If an inner container in an overpack has leaked, the WDS does not record such leaks. 10/24/18 Tr. 54, ll. 25 – 55, l. 3 (Walentine). If inner containers leak waste into the overpack, the proposed LWA volume would not include the waste contaminants that leaked into the air and overpack. 10/24/18 Tr. 55, ll. 4-9 (Walentine). Moreover, the publicly available WDS does not include information about the inner containers in an overpack. 10/24/18 Tr. 23, ll. 23-25 (Walentine). Thus, the public cannot verify the accuracy of a report on the contents of an overpack container. 10/24/18 Tr. 54, ll. 7-13 (Walentine).
55. The WDS lists 10 pieces of equipment that occupy space in Panel 7, Room 6, as “non-containerized material.” They are not included in the waste volume calculations (10.24/18 Tr. 62, ll. 11-17 (Walentine)), even though the waste occupies the space that was to hold more than 70,000 cubic feet of waste. 10/24/18 Tr., 63, ll. 14-17 (Walentine).

56. Mr. Walentine explained that, except for edit and limit functions, the WDS does not distinguish between accurate and inaccurate data entered by the generator sites. 10/24/18 Tr. 40, ll. 13-16 (Walentine).
57. The requested modifications would plainly work massive changes in the operation and the impacts of WIPP, departing dramatically from the original plan that was authorized by NMED and ceding control to DOE over the vital decisions that, in law, must remain with NMED. (Hancock prefiled testimony at 10-12.

Procedural history

58. On January 9, 2018, Permittees hosted a pre-submittal meeting in Albuquerque to discuss a draft PMR, which was attended by NMED, SRIC, and other citizen group representatives. SRIC and the other organizations strongly objected to the request substantively and stated that it was not properly a Class 2 modification. AR 180402.34 at 1; 10/24/18 Tr. 118, ll. 5-12.
59. On January 31, 2018, the Permittees submitted a Class 2 Permit Modification Request, entitled “Clarification of TRU Mixed Waste Disposal Volume Reporting.” AR 180121.
60. On February 2, 2018, the Permittees published a public notice that commenced a 60-day public comment period, which ended on April 3, 2018. Maestas prefiled testimony at 5.
61. By April 3, 2018, 59 public comments were received by NMED, including individuals and 20 organizations. AR 180402 – 180402.59. Many

commenters urged that the PMR be denied and stated that it was not properly a Class 2 request.

62. On June 1, 2018, the NMED Secretary determined that the request would be processed “as a Class 3 modification under 40 CFR 270.42(c), as there is significant public concern and the complex nature of the proposed change requires the more extensive procedures of a Class 3 modification. AR 180602.

63. On June 27, 2018, the NMED issued a Technical Incompleteness Determination (“TID”). AR 180622.

64. On July 12, 2018, Permittees submitted their TID Response. AR 180706 – 180706.01-180706.13

65. On July 26, 2018, NMED issued a Public Involvement Plan (“PIP) for a “Draft Permit to Incorporate the Class 3 Permit Modification to Distinguish TRU Mixed Waste Disposal Volume Reporting.” AR 180717.

66. On August 6, 2018, NMED issued a Notice of Public Comment Period and Opportunity to Request a Public Hearing (AR 1080805), a Draft Permit (AR 180804), and a Fact Sheet (AR 180806). The Notice provided for a 45-day comment period, until September 20, 2018.

67. On August 20, 2018, 21 organizations, representing thousands of New Mexicans, requested an extension of the comment period to 90 days. The organizations noted that the PIP stated: “The Hazardous Waste Bureau may extend the public comment period, if a request is received during the

public comment period to extend the comment period based on significant interest. (Part XII.)” AR 180824.

68. On August 22, 2018, NMED Secretary Tongate denied the extension request. AR 180824
69. On September 17, 2018, the Permittees held a meeting in Santa Fe with four organizations – SRIC, Concerned Citizens for Nuclear Safety (“CCNS”), Nuclear Watch New Mexico (“NWNM”), and Citizens for Alternatives to Radioactive Dumping – and Steve Zappe, and NMED. At the meeting, NMED representatives stated that negotiations with parties opposing the Draft Permit and requesting a public hearing would be held starting on Monday, September 24. The organizations objected to the schedule because it would not provide adequate notice to many parties, nor adequate time for parties to read and analyze all of the comments, that some parties had scheduling conflicts and would not be able to attend the negotiations and that other parties would be “deprived of all opportunity to participate in the negotiations because of the unnecessarily rushed schedule.” The organizations also objected to the public hearing schedule, which would begin on October 23 in Carlsbad, because they stated that the many people would not be able to participate and comment. They also stated “the hearing schedule is unnecessarily rushed, with no basis being provided for such an expedited schedule.” AR 180914.27.
70. On September 19, the four organizations present at the September 17 meeting submitted a letter requesting a public hearing and again stated

their opposition to the negotiation and hearing schedule. They noted that three of the organizations had participated in the previous Class 3 Modification – Public Notice 18-01 of February 22, 2018 – in which 60 days were provided for public comment and request for a public hearing. Negotiations were scheduled and held with all of the parties that had requested a public hearing from July 31 to August 2 – more than 95 days after the hearing requests were due and received. The negotiations were successful and no Notice of Public Hearing was issued, nor was a public hearing held. In contrast, the Notice of Public Hearing would be issued on September 22, before any negotiations were held, which would be only four days after the hearing requests were due and received. AR 180914.27.

71. By September 20, 2018, the Permittees and 36 individuals and organizations submitted comments, including 23 requests for a public hearing. AR 180914-180914.37. *See also* AR 180919.
72. On September 21, 2018, SRIC wrote to Secretary Tongate, reiterating objections to the negotiations schedule and public hearing. SRIC also noted that all timely comments had not been posted, nor included in the Administrative Record. SRIC also requested that the negotiations be re-scheduled and noted that the rushed schedule indicated that “NMED has already decide that negotiations will not resolve all of the issues.” AR 180918.

73. On September 21, 2018, Ricardo Maestas of the Hazardous Waste Bureau wrote a memo to NMED Secretary Tongate recommending a public hearing, which request was approved by the Secretary. AR 180919.
74. On September 22, 2018, NMED issued Public Hearing Notice No. 18-07 for the public hearing in Carlsbad, New Mexico, beginning on October 23, 2018. AR 180928.
75. On September 24-25, 2018, negotiations were held with NMED, the Permittees and four parties that had requested a public hearing. Maestas prefiled testimony at 5.
76. The public hearing was held on October 23, 24, and 25, 2018 in Carlsbad. Transcripts of October 23, 24, and 25, No. HWB 18-19(P).
77. On October 25, 2018, the schedule for post-hearing filings was discussed, and the Hearing Officer set November 21 as the date. 10/25/2018 Tr. 248, l. 10. The date was set after the suggestion by Mr. Woodward for the Permittees that he would be able to do filings “within two weeks after getting the transcript.” 10/25/18 Tr. 245, ll. 9-10. The Hearing Officer suggested “three weeks after the transcript.” 10/25/18 Tr. 245, ll. 12-13. SRIC suggested the normal 30 days after filing of the transcripts. 10/25/18 Tr. 244, ll. 18-20 and 246, ll. 9-10.
78. The transcript of the October 25 hearing was made available on November 2. The October 23 transcript was made available on November 7. The October 24 transcript was delayed because of the unfortunate death of the

court reporter and the need to find a reporter to transcribe the audio tape of that day's hearing.

79. On November 9, 2018, SRIC filed an Unopposed Motion for an Extension of the Deadline for post-hearing filings until November 26, 2018. On November 13, the Hearing Officer ordered the revised deadline of November 26, 2018 at 5:00 pm MST.
80. On November 19, 2018, the October 24, 2018 transcript was made available with more than 120 times "[INAUDIBLE]." Corrections were made by the witnesses on November 20, 2018.
81. On November 21, 2018, SRIC filed a motion to extend the deadline for post-hearing filings to November 30, 2018. The motion was supported by CCNS, NWNM, and Steve Zappe and was opposed by DOE and NMED.
82. On November 23, 2018, the Hearing Officer by order extended the deadline for post-hearing filings to November 28, 2018.

Proposed Conclusions of Law

Based on the foregoing Findings of Fact, SRIC proposes the following Conclusions of Law.

1. The Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.* ("RCRA"), was enacted to protect human health and the environment. Without a RCRA permit (in New Mexico issued pursuant to the Hazardous Waste Act, § 74-4-1 *et seq.* NMSA 1978 ("HWA")), WIPP cannot operate, and with a RCRA permit, WIPP is required to operate within the terms of that Permit.

2. The WIPP LWA, Pub. L. No. 102-579, was enacted primarily to withdraw the WIPP site from the operation of the public land laws of general application. It contains several conditions to constrain the operation of the waste disposal facility. The LWA authorizes no new environmental standards for WIPP and confers no environmental authorities upon DOE. Instead, it mandates that DOE at WIPP must comply with existing environmental laws, which the LWA expressly does not modify or limit. These LWA savings clauses and other provisions in the LWA make clear that, even if a conflict existed between the LWA and RCRA, the provisions of RCRA would prevail.
3. RCRA requires EPA to issue regulations, inter alia, establishing a structure for the issuance of hazardous waste permits (42 U.S.C. § 6925), which EPA has done (40 C.F.R. Parts 260-272). These regulations include rules for permitting of “miscellaneous units,” a term that includes WIPP. 40 C.F.R. §§ 264.601-03, Subpart X. Such rules require the permitting authority to consider the scope of a proposed facility and the possible ways hazardous wastes might be released from such a facility and to issue a permit that protects human health and the environment.
4. Regulations direct as follows:

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or

hazardous constituents from the unit. Permit terms and provisions must include those requirements of subparts I through O and subparts AA through CC of this part, part 270, part 63 subpart EEE, and part 146 of this chapter that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment, considering . . .

40 CFR § 264.601. The factors that the permitting authority must consider include:

The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

Id. Further, the permitting authority is required to include in its permit the specific reporting requirements that meet the needs of the facility:

Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with §§ 264.601, 264.15, 264.33, 264.75, 264.76, 264.77, and 264.101 as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

40 CFR § 264.602. EPA explained in issuing Subpart X that any possible release of hazardous constituents must be examined and provisions included in the permit to guard against such possible releases. Such measures require the permitting authority to regulate the volume, concentration and characteristics of hazardous waste to be disposed of. EPA stated:

1. Ground-Water and Subsurface Migration

Section 264.601(a) lists several factors to be considered to prevent any release that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment. These factors must be addressed

to prevent ground-water contamination and the subsurface migration of hazardous waste from miscellaneous units (e.g., geologic repositories and hazardous waste management units that are placed in or on land).

The first factor includes the volume, concentration, and physical and chemical characteristics of the waste placed in the unit. The volume and concentration determine the maximum amount and concentration of waste that may enter the ground water.

EPA Release, 52 Fed. Reg. 46946, 46956 (Dec. 10, 1987). The EPA Subpart X regulations have been adopted as HWA regulations. 20 NMAC 4.1.500.

5. The HWA regulations outline the process that NMED followed in issuing the permit for WIPP in 1999. The Permittees filed a Part A application, which by regulation must include:

(j) A specification of the hazardous wastes listed or designated under 40 CFR part 261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

40 C.F.R. § 270.13. DOE filed a completed Part A application with the Permit Application, giving the capacity of 175,600 m³, which is the equivalent of 6.2 million ft³. AR 180402.48G. The Part A application states: “The geologic repository has been divided into ten discrete hazardous waste management units (HWMU) which are being permitted for disposal under 40 C.F.R. Part 264, Subpart X.” (*id.* at A-5).

Capacities of HWMUs are stated in cubic meters. It is stated that “During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived

waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 may be remote-handled (RH) TRU mixed waste.” *id.* at A-25.

6. DOE filed a Part B application, which described in detail, inter alia, how the WIPP facility would meet Environmental Performance Standards. AR 180402.48G, at D-9. *See* 10/23/18 Tr. 73, ll. 19 – Tr. 74, l. 18 (Kehrman). NMED was assisted in reviewing DOE’s application by EPA’s publication, Hazardous Waste Storage and Disposal in Geologic Repositories, Permit Guidance under the Resource Conservation and Recovery Act, EPA/530-SW-001, Sept. 1988. This guidance states that a RCRA permit application for a geologic repository should address the structural stability, hydrologic isolation, waste emplacement methods, and worker safety and health of the proposed repository. *id.* at 3-2 to 3-5.
7. During the WIPP Permit hearing in 1999, NMED provided evidence and testimony regarding its authority under the LWA and the HWA to impose various conditions in the Permit. AR 180402.34A, 180914.37T, 180914.37W. The Permit imposed capacity limits on each Hazardous Waste Disposal Unit (“HWDU”), based on container volumes, including overpacks, which were included in the Permit. Permit III.C.1. Thus, in law, regulation, and practice, NMED has authority to impose conditions, including capacity limits on WIPP. NMED has used its authority to specify that WIPP HWDU capacity limits are based on container volumes.
8. On October 27, 1999 NMED issued the HWA disposal permit for WIPP. The Permit, among other requirements, specifies the maximum quantities

of transuranic waste to be disposed of in each of eight panels, and calls upon DOE to maintain records of the volume of waste emplaced in each room and to report the volume in each panel by submitting a permit modification, for entry of the data in Table 4.1.1. Permit Part 1.3.1, 6.10.1. The Permit is predicated on a determination by NMED that the WIPP facility will protect human health and the environment if operated within the limits of the Permit, which include the authorized waste volume.

9. It is not correct to suggest, as DOE does, that the purpose of the HWA Permit is simply to ensure that the waste fits within the “physical volume of each mined HWDU” or to assure “safe management of the waste and initiation of closure of the HWDUs.” AR 180121, PMR at 2. To the contrary, the HWA permit is designed to ensure that the WIPP facility as a whole, for the present and the future, does not adversely affect human health and the environment, as RCRA and the RCRA regulations mandate. NMED has determined that, without the Permit, with all its terms and conditions, including as to waste volume, it cannot ensure that WIPP would be safe, and WIPP would not be entitled to operate. Indeed, without that Permit WIPP may not lawfully operate, and it may not, at any time, lawfully operate beyond the limits set by that Permit, including, for present purposes, the waste types and volumes specified in existing Table 4.1.1. Mr. Maestas of NMED acknowledged that NMED is mandated to enforce volume limits. 10/24/18 Tr. 167, ll 19-25, Tr. 168, ll. 1-13 (Maestas).

10. The Subpart X regulations, and other RCRA regulations, are not optional.

It is not within NMED's authority to exempt WIPP from part of the Subpart X regulations. Regulation of hazardous wastes is governed by federal law, and RCRA is the supreme law of the land. U.S. Const., Art. VI, Cl. 2. The LWA specifically saves RCRA from any implied repeal. LWA § 14. NMED has represented to EPA that New Mexico's HWA program is "equivalent to, consistent with, and no less stringent than the federal program" under RCRA. On that basis, EPA authorized New Mexico under 42 U.S.C. § 6926(b) to operate the state's HWA program in lieu of RCRA. Maestas prefiled testimony at 2-3. *See also generally*, New Mexico: Final Authorization of State Hazardous Waste Management Program Revision, 72 Fed. Reg. 46165 (Aug. 17, 2007).

11. DOE now claims, for the first time in this PMR, that it has independent authority under the LWA to interpret the volume limitation in LWA § 7(a)(3), which states: "The total capacity of WIPP by volume is 6.2 million cubic feet of transuranic waste." AR 180121, PMR at 9-10. DOE claims that it can apply its own measurement methods to the statutory limit of 6.2 million ft³ and can determine what waste containers do or do not constitute 6.2 million ft³ of TRU waste. DOE in the PMR claims that it can use its own fill factors, count or discount overpacks or inner containers, and so forth. The Draft Permit would have the Permittees report the numerical conclusion for entry by NMED into Table 4.1.1. NMED's witness, Mr. Maestas, confirmed that this is his understanding. 10/24/18 Tr. 127, ll. 12-

15, Tr. 161, ll. 14-20 (Maestas). Mr. Kehrman agreed that DOE could make such determinations without oversight or explanation. 10/23/18 Tr. 83, ll. 3-16; Tr. 91, ll. 6-21; Tr. 146, ll. 13-24; (Kehrman).

12. DOE presents no legal basis for DOE, independently and without regulation, to calculate and report publicly the quantity of waste disposed of at WIPP. The LWA assigns no regulatory role to DOE. DOE asks leave to regulate its own compliance with the LWA volume limit by determining the volume of waste in containers emplaced at WIPP. DOE's calculation of an asserted "LWA TRU waste volume," with or without its insertion into the Permit, can have no legal effect on the operation of WIPP. The LWA does not appoint DOE as a separate regulator under the LWA.

13. To the contrary, the LWA expressly acknowledges and empowers other federal and state authorities to have such regulatory responsibilities. The LWA expressly directs DOE not to enforce but *to comply with RCRA, RCRA regulations, and the RCRA permit*, and to document its compliance with such legal requirements:

SEC. 9. COMPLIANCE WITH ENVIRONMENTAL LAWS
AND REGULATIONS.

(a) In General. --

(1) Applicability. Beginning on the date of the enactment of this Act, the Secretary [of Energy] shall comply with respect to WIPP, with --

* * *

(C) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.);

* * *

(H) all regulations promulgated, and all permit requirements, under the laws described in subparagraphs (B) through (G).

(2) Periodic oversight by Administrator and State. The Secretary [of Energy] shall, not later than 2 years after the date of the enactment of this Act, and biennially thereafter, submit documentation of continued compliance with the laws, regulations, and permit requirements described in paragraph (1) to the Administrator, and, with the law described in paragraph (1)(C), to the State.

(3) Determination by Administrator or State. The [EPA] Administrator or the State, as appropriate, shall determine not later than 6 months after receiving a submission under paragraph (2) whether the Secretary is in compliance with the laws, regulations, and permit requirements described in paragraph (1) with respect to WIPP.

AR 180706.03.

14. In addition, LWA § 9 underscores the State's ongoing authority under RCRA:

(d) Savings provision.—The authorities provided to the Administrator and to the State pursuant to this section are in addition to the enforcement authorities available to the State pursuant to State law and to the Administrator, the State, and any other person, pursuant to the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.) and the Clean Air Act (40 U.S.C. 7401 et seq.).

15. It cannot be contended that the LWA modified the applicable RCRA

requirements. To preclude any such claims, the LWA specifically states

that nothing therein modifies the terms of RCRA or limits the State's or

EPA's authority to enforce or DOE's obligation to comply with RCRA:

SEC. 14. SAVINGS PROVISIONS.

(a) CAA and SWDA. No provision of this Act may be construed to supersede or modify the provisions of the Clean Air Act (42 U.S.C. 7401 et seq.) or the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).

(b) EXISTING AUTHORITY OF EPA AND STATE. No provision of this Act may be construed to limit, or in any manner affect, the Administrator's or the State's authority to enforce, or the Secretary's obligation to comply with --

(1) the Clean Air Act (42 U.S.C. 7401 et seq.);

(2) the Solid Waste Disposal Act (42 U.S.C. 6901 et seq.), except

that the transuranic mixed waste designated by the Secretary for disposal at WIPP is exempt from the land disposal restrictions described in section 9(a)(1); or

(3) any other applicable clean air or hazardous waste law.

Id. Thus, the LWA says that NMED's role is to enforce RCRA, and DOE's role is to comply with RCRA. There is no reference to any authority granted to DOE to interpret and enforce limits on the introduction of waste.

16. If the PMR is granted and DOE starts asserting its "LWA volume of record" figures for amounts of waste emplaced, there would clearly be a conflict between DOE's waste volume data and the waste volume data compiled by NMED. Mr. Kehrman said that the purpose of the PMR is to "remov[e] the nexus" between the LWA volume and the TRU mixed waste volume" regulated by the Permit. 10/23/18 Tr. 79, ll. 16-18 (Kehrman).
17. There are rules for resolving conflicts between federal statutes. First, the courts must be reluctant to read conflicts into statutes: "The canon against reading conflicts into statutes is a traditional tool of statutory construction." *See Epic Systems Corp. v. Lewis*, 138 S.Ct. 1612, 1630 (2018). The preferred course is to give full effect to the provisions of both statutes: "It is this Court's duty to interpret Congress's statutes as a harmonious whole rather than at war with one another." *Id.* 1619.
18. Under RCRA, NMED is charged with the duty to set limits upon waste volume, to record waste emplacement, and to enforce the limit contained in the Permit. 40 C.F.R. §§ 264.601-03, Subpart X. At the same time, no provision in the LWA empowers DOE to interpret statutory volume limits,

such as the waste volume limit of 6.2 million ft³, nor to enforce its interpretation of such limits.

19. But an agency's assumption of regulatory authority must be based on clear statutory language: "[A]n administrative agency's power to regulate in the public interest must always be grounded in a valid grant of authority from Congress." *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 161 (2000). Thus: "The Supreme Court has long recognized the principle of deference which requires courts to accord "considerable weight" to the construction by an executive department of a statute that it administers." *Ohio v. Ruckelshaus*, 776 F.2d 1333, 1339 (6th Cir. 1985). The key phrase is: "a statute that it administers." The statute in question must be "delegated to the[] care" of the agency:

Of course, courts afford considerable deference to agencies interpreting ambiguities in statutes that Congress has delegated to their care, *see Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 104 S. Ct. 2778, 81 L. Ed. 2d 694 (1984), including statutory ambiguities affecting the agency's jurisdiction, *see Commodity Futures Trading Comm'n v. Schor*, 478 U.S. 833, 844, 106 S. Ct. 3245, 92 L. Ed. 2d 675 (1986); *see also Miss. Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 381, 108 S. Ct. 2428, 101 L. Ed. 2d 322 (1988) (Scalia, J., concurring in the judgment); *Teamsters Local Union No. 523 v. NLRB*, 590 F.3d 849, 850-51 (10th Cir. 2009).

Hydro Resources, Inc. v. U.S. EPA, 608 F.3d 1131, 1145-46 (10th Cir.

- 2010). But courts refuse deference to the pronouncements of an agency that has no such delegation of authority:

Courts do not, however, afford the same deference to an agency's interpretation of a statute lying outside the compass of its particular expertise and special charge to administer. *See Metro. Stevedore Co. v. Rambo*, 521 U.S. 121, 137 n.9, 117 S. Ct. 1953, 138 L. Ed.

2d 327 (1997) (no deference given to agency interpretation of statute, in part, because the agency was not "charged with administering" it); *Adams Fruit Co. v. Barrett*, 494 U.S. 638, 649, 110 S. Ct. 1384, 108 L. Ed. 2d 585 (1990) ("A precondition to deference under *Chevron* is a congressional delegation of administrative authority.").

Id.

20. Such delegation of authority is not discovered by speculating about the supposed implications of obscure provisions: “[I]t is highly unlikely that Congress would leave the determination of whether an industry will be entirely, or even substantially, rate-regulated to agency discretion—and even more unlikely that it would achieve that through such a subtle device as permission to ‘modify’ rate-filing requirements.” *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000), quoting from *MCI Telecommunications Corp. v. American Telephone & Telegraph Co.*, 512 U.S. 218, 231 (1994). DOE’s PMR ignores the watchword that “Congress ‘does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes.’” *Epic Sys. Corp. v. Lewis*, 138 S. Ct. 1612, 1626-1627 (2018), quoting from *Whitman v. American Trucking Assns., Inc.*, 531 U.S. 457, 468 (2001).

21. Thus, there is no conflict between the federal laws, because no federal law authorizes DOE to perform the functions that it claims here—that the “LWA requires the volume to be reported relative to the total capacity limit of 6.2 million ft³ (175,564 m³) of TRU waste” (AR 180121, PMR at 2)—a DOE function that exists nowhere in federal law, least of all in the LWA.

22. Moreover, DOE does not disclose the methodology it would employ to determine volumes or the conclusions it would reach. To deserve any deference at all, an agency decision must make an explicit “interpretive choice.” *United States v. Mead Corp.*, 533 U.S. 218, 226-38 (2001). DOE’s public interpretations of the LWA volume limit over decades, which are many, all conflict with the separate determinations it now proposes to make. The PMR proposes that DOE simply deliver to NMED a waste volume number, without basis or explanation, which NMED will enter in the Permit. Even when an agency is charged with administration of its own statute, in deciding whether to accept its interpretations the courts must consider “the agency’s care, its consistency, formality, and relative expertness, and to the persuasiveness of the agency’s position.” *Mead Corp.*, 533 U.S. at 228. Under DOE’s proposal, none of those would be visible. There is no process to whose result NMED may choose to defer.
23. In evaluating a federal agency’s interpretation of a statute it administers, guidance is furnished by *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). *Chevron* counsels that one must first determine whether the statute in question is ambiguous. In determining whether Congress has specifically addressed the question at issue, a reviewing court should not confine itself to examining a particular statutory provision in isolation. The meaning—or ambiguity—of certain words or phrases may only become evident when placed in context. *See Brown v.*

Gardner, 513 U.S. 115, 118, 130 L. Ed. 2d 462, 115 S. Ct. 552 (1994) ("Ambiguity is a creature not of definitional possibilities but of statutory context"); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132-33 (2000). *See also Pharmanex v. Shalala*, 221 F.3d 1151, 1157 (10th Cir. 2000). It is a "fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme." *Davis v. Michigan Dept. of Treasury*, 489 U.S. 803, 809 (1989).

24. Apparent ambiguities may be resolved by the structure of the statute and the meaning of other sections. *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000); *Robinson v. Shell Oil Co.*, 519 U.S. 337, 345-46 (1997). A court must interpret the statute "as a symmetrical and coherent regulatory scheme," *Gustafson v. Alloyd Co.*, 513 U.S. 561, 569, 131 L. Ed. 2d 1, 115 S. Ct. 1061 (1995), and "fit, if possible, all parts into an harmonious whole," *FTC v. Mandel Brothers, Inc.*, 359 U.S. 385, 389, 3 L. Ed. 2d 893, 79 S. Ct. 818 (1959).

25. NMED claims that it sought the intent of Congress by reading the LWA. 10/24/18 Tr. 148, ll. 19-21 (Maestas). Mr. Maestas testified that NMED determined that the LWA contained no clear direction that required the use of the volume of the outermost container to calculate the emplaced volume under § 7(a)(3). Maestas pre-filed testimony at 8; 10/24/18 Tr. 88, ll. 10-16, Tr. 141, ll. 8-25, 142, ll. 1-9 (Maestas). NMED therefore reasoned that DOE was free to determine emplaced volume by any test it wished.

10/24/18 Tr. 125, ll. 11-14 (Maestas). There is no indication that NMED gave any thought to (a) whether DOE has any statutory authority to interpret and apply the waste volume limitation or (b) the meaning of the § 7(a)(3) volume limit in the context of other LWA provisions, such as the limitations on Test Phase waste volume, the LWA's emphatic confirmation of RCRA coverage, and the multiple savings clauses that maintain the State's authority to apply RCRA. Congress's intent in enacting the LWA volume limit of 6.2 million ft³ is illustrated by two other limits on introduction of waste at WIPP contained in the original LWA, Pub. L. No. 102-579. The Test Phase was a preliminary stage that DOE proposed involving experiments with TRU waste at WIPP. The original LWA had two limitations on the introduction of waste for the Test Phase:

(c) EPA's No-Migration Determination, 55 Fed. Reg. 47700 (Nov. 14, 1990). The No-Migration Determination limited the introduction of waste for the test phase: "Wastes placed in the repository may not exceed 8,500 drums, or 1 percent of the total capacity of the repository, as currently planned." *Id.* at 47720.

(d) Test Phase limitations contained in the original LWA § 6(c), which limited introduction of waste for the Test Phase to "in no event more than 1/2 of 1 percent of the total capacity of WIPP as described in section 7(a)(3)." AR 180706.03.

26. When the LWA was passed, the limits applicable to the Test Phase were of urgent interest. In its No-Migration Determination, EPA stated that to

exceed the limit of 1% of the total WIPP capacity, or 8,500 drums, would be a basic change in the nature of DOE's activities, requiring notice and comment rulemaking:

Rather, EPA in effect is defining a limit that it would consider to be a significant departure from the activities described in DOE's no-migration petition and its final test plan. Before DOE could exceed that limit, it would have to repetition EPA, and any EPA approval of an expanded test program would have to undergo public comment.

55 Fed. Reg. 47700, 47707.

27. In the LWA, Congress spotlighted the limitations of the No-Migration Determination as included within DOE's obligation to comply with RCRA, *viz*: "including all terms and conditions of the No-Migration Determination." (LWA § 14(b)(2)).
28. Congress included in the LWA its own specific limitation on Test Phase waste which firmly limited the volume of waste allowed for the Test Phase to
- (A) only such quantities of transuranic waste as the Administrator has approved for test phase activities under section 5; and
 - (B) in no event more than 1/2 of 1 percent of the total capacity of WIPP as described in Section 7(a)(3).
- LWA § 6(c)(1).
29. If DOE were authorized to determine what constitutes a given volume of waste, such an authority would be in utter conflict with the waste volume limits on Test Phase activities in EPA's No-Migration Determination, 55 Fed. Reg. 47700 (Nov. 14, 1990), and in the original LWA § 6(c)(1) itself.

30. In mandating specific volume limits for the Test Phase, Congress plainly did not empower DOE, in the same statute, to thwart those very limitations by exercising an unstated power to “recalculate” the volume of waste brought for tests. Much less did Congress grant DOE the power to “recalculate” WIPP’s total waste volume, thereby recalculating both test volume and total volume. The power to change waste volume by “recalculation” is a latter-day DOE fabrication that does not exist in the enactments of Congress.
31. Section 7(a)(3), seen in the context of the entire LWA, is not ambiguous, but even if that provision be viewed as ambiguous, *Chevron* counsels that, in the presence of ambiguity, one must continue the inquiry into stage two: “If, however, the court determines Congress has not directly addressed the precise question at issue, *the court does not simply impose its own construction on the statute*, as would be necessary in the absence of an administrative interpretation.” The Court explained: “Rather, if the statute is silent or ambiguous with respect to the specific issue, *the question for the court is whether the agency's answer is based on a permissible construction of the statute.*” *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 843 (1984)(*emphasis supplied*).
32. Thus, one must consider additional sources and should reject the agency’s interpretation if “it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned.” *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837,

845 (1984), quoting *United States v. Shimer*, 367 U.S. 374, 382, 383 (1961).

33. The inquiry is careful and focused: “The principle of deference does not permit a court to become a rubber stamp, automatically approving every agency interpretation of a statute. Rather, it requires ‘a searching and careful’ inquiry into the facts of each case to determine that the agency has acted within the scope of its statutory authority. *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416 (1971).” *Ohio v. Ruckelshaus*, 776 F.2d 1333, 1339 (6th Cir. 1985).
34. Further, “[i]n surveying legislative history we have repeatedly stated that the authoritative source for finding the Legislature's intent lies in the Committee Reports on the bill, which ‘[represent] the considered and collective understanding of those Congressmen involved in drafting and studying proposed legislation.’ *Zuber v. Allen*, 396 U.S. 168, 186 (1969).” *Garcia v. United States*, 469 U.S. 70, 76 (1984).
35. However, Mr. Kehrman did not consult the legislative history. 10/23/18 Tr. 149, ll. 18-21; 166, ll. 4-8 (Kehrman). Mr. Maestas claims that he reviewed the congressional reports in response to public comments, but found no help there. 10/24/18 Tr. 102, ll. 16-25, Tr. 141, ll. 8-25; Tr. 148, ll. 6-21, (Maestas).
36. The congressional reports show that Congress was determined to control, by legislation, the volume of waste brought to WIPP. The House Energy

and Commerce Committee observed that DOE's "test phase" plan was a matter of current debate:

However, despite these limitations, DOE's test plan remains a controversial proposal, both in terms of its safety and its utility. In a June, 1991, report, the General Accounting Office concluded, "From 1981 through 1988, DOE concentrated on building WIPP and gave little attention to resolving environmental compliance issues. In 1989, after external oversight groups had raised concerns about these issues, DOE proposed tests . . . Since then, DOE has repeatedly had to revise and delay the tests because of unresolved technical and safety issues." In addition, questions have been raised by Sandia National Laboratories and others as to whether the test phase will produce useful results.

SRIC Ex. 9C at 14. Therefore, the committees focused closely on the exact quantity of waste allowed for the Test Phase. Committees proposed bills, emphasizing that a statutory limit could not be exceeded: The Senate Energy and Natural Resources Committee stated that its limit of 1% of WIPP's capacity constitutes "an absolute limitation on volume of 1 percent of the design capacity of WIPP." SRIC Ex. 8, AR 180402.34Z. The House Interior and Insular Affairs Committee specified that "(i) the EPA Administrator must determine that movement of specific quantities of TRU waste to the WIPP is necessary to perform test phase activities; (ii) no more than 4,250 55-gallon drums of TRU waste, or one-half of one percent of the total capacity of the WIPP, whichever is less, may be used." SRIC Ex. 9A at 18, AR 180402.34AA. The House Committee on Armed Services made clear that the experimental program was strictly limited in volume: Section 6(a) "would also limit waste emplaced during the experimental program to only so much as required for the experimental

program, but not to exceed 0.55 percent of the total capacity of WIPP, or 4,675 drums (or drum equivalents).” SRIC Ex. 9B at 22, AR

180402.34BB. The House Committee on Energy and Commerce stated that “Sec. 6(c) imposes the following limitations on test phase activities at the WIPP: (i) the EPA Administrator must determine that movement of specific quantities of TRU waste to the WIPP is necessary to perform test phase activities; (ii) no more than 4,250 55-gallon drums of TRU waste, or one-half of one percent of the total capacity of the WIPP, whichever is less, may be placed in WIPP . . . ” SRIC Ex. 9C at 20, AR 180402.34CC. It is clear also that Congress understood the volume limitations to refer to waste in containers—*i.e.*, waste drums.

37. Thus, the legislative history shows that Congress was determined to set hard limits on permissible waste volumes, understood that such volumes were measured by the volume of the containers, and clearly could not have intended DOE to possess the power to “recalculate” waste volumes to circumvent the specific limits that Congress imposed.

38. It is uncontroverted in the record that there are close to 40 years of consistent application of the rule that the volume of waste emplaced at WIPP is determined by the volume of the outermost container. This principle is embodied in Environmental Impact Statements, RCRA Permits, DOE Inventory Reports and reports to Congress, and EPA Certification decisions.

39. Where a statute is ambiguous, the courts may look to interpretations contained in regulations issued by the agency charged with their issuance. *Dalzell v. RP Steamboat Springs, LLC*, 781 F.3d 1201, 1209 (10th Cir. 2015). In *Toomer v. City Cab*, 443 F.3d 1191 (10th Cir. 2006), the court pointed out that reliance on agency interpretations contained in regulations is appropriate when the statute is ambiguous: Thus, deference is warranted when it “appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority.” *Gonzales v. Oregon*, 126 S. Ct. 904, 915, 163 L. Ed. 2d 748 (2006) (quoting *United States v. Mead Corp.*, 533 U.S. 218, 226-27 (2001)).

40. The Tenth Circuit has observed:

In *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 844 (1984), the Supreme Court reaffirmed that

considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer, and the principles of deference to administrative interpretations . . . consistently followed . . . whenever decision as to the meaning or reach of a statute [] involves reconciling conflicting policies, and a full understanding of the force of the statutory policy in the given situation [] depends upon more than ordinary knowledge respecting the matters subjected to agency regulations.

Seneca-Cayuga Tribe of Oklahoma v. National Indian Gaming

Commission, 327 F.3d 1019, 1036 (10th Cir. 2003). Moreover, the

outcome of a public rulemaking process is especially entitled to deference:

Underlying this judicial deference to administrative agencies is the notion that the "rule-making process bears some resemblance to the legislative process and serves to temper the resultant rules such that they are likely to withstand vigorous scrutiny.

Seneca-Cayuga Tribe, 327 F.3d at 1036. In *Seneca-Cayuga Tribe*, the results of a public rulemaking were entitled to "controlling weight." *Id.* 1043.

41. The EPA Certifications have, by regulation, required that DOE

demonstrate that it is in compliance with the waste volume limits in the

LWA:

(g) The Department shall demonstrate in any compliance application that the total inventory of waste emplaced in the disposal system complies with the limitations on transuranic waste disposal described in the WIPP LWA.

40 C.F.R. § 194.24(g).

42. The compliance determination itself was carried out by another public

notice-and-comment rulemaking. In proof of compliance, DOE has

submitted data concerning its emplaced volumes based upon "final waste

form" data, *i.e.*, using the volume of the outermost container when the

waste is prepared for disposal. "These inventories are also described in

terms of final forms and include stored, projected, anticipated, and total

disposal volumes for CH-TRU and RH-TRU waste." SRIC Ex. 14,

CARD No. 24, Waste Characterization, at 24-97. The data were

submitted in a public process and were subject to notice and comment

rulemaking procedures and judicial review. LWA § 8(c)(2) & (3). EPA

accepted the "final form" data: "EPA concluded that the CCA adequately

described the inventory at the WIPP in terms of the units specified in the limitations of the LWA as they pertain to total RH activity and total volume . . .” *Id.* 24-98. A similar practice, except without judicial review, was followed in later certification submissions and EPA decisions. SRIC Ex. 17 (71 Fed. Reg. 18010, 18017); SRIC Ex. 20 (75 Fed. Reg. 70584, 70591-92); SRIC Ex. 22 (82 Fed. Reg. 33106, 33119).

43. DOE has no delegated authority to determine how waste volume is measured. Nor has DOE proposed a method for measuring waste volume that is entitled to deference. DOE has no legal authority, but NMED does, and so does EPA. And there is a public and established interpretation of the volume limit that is entitled to deference—that volume should be determined based on the “final waste form,” *i.e.*, the waste after any necessary treatment and in any appropriate overpack. That interpretation has prevailed for decades, endorsed not only by DOE but also by NMED and by EPA.
44. DOE submitted “final waste form” volume data to EPA in the Compliance Certification proceeding to demonstrate compliance with the LWA volume limit. EPA accepted such data as proof of compliance. That proceeding was a public rulemaking process, with judicial review. Under precedents such as *Seneca-Cayuga Tribe*, the determination of waste volume based on final waste form is entitled to “controlling weight.”

45. Neither DOE nor NMED has offered a reasoned explanation for the change that DOE seeks in the interpretation of the LWA limit. Such an unexplained reversal of a longstanding position deserves no support:

A ‘settled course of behavior embodies the agency's informed judgment that, by pursuing that course, it will carry out the policies committed to it by Congress. There is, then, at least a presumption that those policies will be carried out best if the settled rule is adhered to.’” *Atchison, T. & S. F. R. Co. v. Wichita Bd. of Trade*, 412 U.S. 800, 807-808 (1973). Accordingly, an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance.

Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 463 U.S. 29, 41-42 (1983). The Court has explained that, when an agency changes its policy, it “may not, for example, depart from a prior policy sub silentio or simply disregard rules that are still on the books. . . . And of course the agency must show that there are good reasons for the new policy.” *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). Further, an agency must offer a more detailed justification than what would suffice for a new policy created on a blank slate. The Court offered examples:

Sometimes it must—when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account. . . . It would be arbitrary or capricious to ignore such matters. In such cases it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy.

Id. A recent decision that enjoins construction of the Keystone XL pipeline states: “An agency must provide a detailed justification for reversing course and adopting a policy that ‘rests upon factual findings that contradict those which underlay its prior policy.’ *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).” *Indigenous Environmental Network v. U.S. Department of State*, No. CV-17-29-GF-BMM (D. Mont., Nov. 8, 2018) (slip op. at 31).

46. In the 1980’s, the State of New Mexico made an agreement with the Department of Energy, as called for by Congress in the WIPP Authorization Act of 1979. Pub. L. No. 96-164, § 213. The State agreed to accept the construction and operation of WIPP on certain conditions, among which were the stated waste volume limits. Under that agreement, the “prior policy” clearly has been to calculate waste volume based on the outermost container. That method was the premise of the agreed-upon volume limits in many operative documents in which DOE and the State participated, including the Consultation and Cooperation Agreement, the Second Modification of 1987, the LWA, and the HWA Permit. The method was manifestly known to environmentally-informed citizens.
47. Such agreement between the State and DOE had practical consequences for the government and the entire population of New Mexico. The duration of WIPP’s operation was a direct function of the disposal volume. The Final Environmental Impact Statement of 1980 states that “the plant would be designed for an operating life of about 25 years. The facility

would be operational in 1987.” SRIC Ex. 1, AR 180121.04 at 1-5. At the time of the LWA in 1991, DOE stated, and Congress understood that “[t]he total estimated cost over the 25-year operating life of the facility is in excess of \$2.5 billion.” SRIC Ex. 8; Sen. Rpt. at 18. The House Interior report stated that “[t]he Department of Energy (“DOE”) plans to operate the WIPP for 25 years...” SRIC Ex. 9A at 9 (House Interior Rpt.). The Permit itself projects a disposal phase of 25 years: “During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 m³ may be remote-handled (RH) TRU mixed waste.” at B-13. Again: “During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m³ of TRU waste of which up to 7,080 m³ may be remote-handled (RH) TRU mixed waste. . . .” at G-5. Yet again: “The Disposal Phase for the WIPP facility is expected to require a period of 25 years beginning with the first receipt of TRU waste at the WIPP facility and followed by a period ranging from 7 to 10 years for decontamination, decommissioning, and final closure.” at G-6.

48. Based on DOE’s explicit representations as to volume limits and duration of the Disposal Phase, the New Mexico government and citizens expected that waste emplacement at WIPP would be finished by approximately 2025, and DOE would then proceed with closure of WIPP. At that point,

the cost and time involved in the State's oversight, regulation and monitoring of WIPP could start to wind down. More importantly, the period of exposure to the demonstrable risks to the State and its people from WIPP's active management of radioactive waste (Anastas testimony, 10/25/18 Tr. 127-74) would end. The existence of "serious reliance interests" tied to the limits on waste volume, and thus the period of risk, is manifest. The proposed new "LWA volume of record" system, if approved, would give DOE significant additional disposal volume, prompting DOE to demand additional disposal space, and causing DOE to extend the WIPP disposal phase by decades. But, although DOE acknowledges that a change is being proposed, it offers no justification for upsetting the expectations of the State and its citizens. There is no "reasoned explanation;" indeed, there cannot be, because the proposed new policy rejects DOE's commitments to the State and violates the law.

49. When asked, Mr. Kehrman could only state that DOE sought the modification to break the link between the LWA volume and the Permit volume, because "that connection creates limitations and will not allow WIPP to go beyond—to have a TRU mixed waste volume in excess of 6.2 million." 10/23/18 Tr. 212, ll. 17-21 (Kehrman). Put simply, DOE seeks the Permit modification so that it can introduce more waste than the LWA allows. Such an explanation presents no basis for a change in DOE's position on a key element of a bilateral agreement between DOE and the

State. Mr. Maestas could offer no explanation of the purpose of the modification. 10/24/18, Tr. 121, ll 15-25, Tr. 122, ll. 1-17 (Maestas).

50. It has been known since 1999 that waste containers might be overpacked, and it has been publicly reported several times (*See* SRIC Exs. 58, 59, and 60; 10/25/18 Tr. 192, ll. 1-5 (Hancock); Hancock prefiled testimony at 10) that DOE has used disposal space inefficiently, and WIPP may be unable to dispose of the entire planned inventory. Such circumstances, which are the results of DOE's own actions, do not justify DOE's renunciation of its commitment to the people of New Mexico.
51. Even before issuance of the WIPP Permit in 1999, the C&C Agreement established capacity limits for WIPP, which were also based on container volumes. The First Modification (November 30, 1984) states that

In carrying out this stated mission, DOE and WIPP will comply, at a minimum, with all applicable state, federal, and local standards, regulations, and laws, including any applicable regulations or standards promulgated by the Environmental Protection Agency (EPA).

AR 180706.02, p. 37 of PDF (First Modification, at 6). The First Modification states further:

The DOE agrees that no defense RH-TRU with a surface dose rate in excess of 1000 rem per hour will be shipped to WIPP and that no more than 5% of the total volume of 250,000 cubic feet (or 12,500 cubic feet maximum) of defense RH-TR shipped to WIPP will exceed 100 rem per hour surface dose rate.

AR 180706.02, p. 35 (First Modification at 4). Such language plainly commits DOE to abide by the capacity limit of 250,000 ft³ (or 7,080 m³) of RH TRU waste. The Second Modification to the C&C Agreement

(July 28, 1987) maintains the same language from the First Modification

(at 6) and adds the following:

Prior to receiving more than 15 percent by volume of the transuranic waste capacity of the Waste Isolation Pilot Plant, described as 6.2 million cubic feet of transuranic waste in the Waste Isolation Pilot Plant Record of Decision (46 Federal Register 9162, dated January 23, 1981), the Secretary of Energy shall demonstrate that the Waste Isolation Pilot Plant meets the applicable environmental standards for the disposal of radioactive waste established in Part B of the Environmental Protection Agency Standards (40 CFR 191, Part B), including the Assurance Requirements under such Part B.

AR 180706.02, pp. 56 and 57 of PDF (Second Modification at 4-5). Such language plainly commits DOE to abide by the capacity limit of 6.2 million ft³ for total TRU waste. And Mr. Kehrman testified that emplaced waste volume, to this date, has been calculated as “the sum of all of the outermost waste containers emplaced in the site.” 10/23/18 Tr. II. 4-25 (Kehrman).

52. Adoption of the C&C Agreement is directed by the WIPP Authorization of 1979. The C&C Agreement’s authority is recognized by the LWA, which states that “[n]othing in this Act shall affect the Agreement or the Supplemental Stipulated Agreement between the State and the United States Department of Energy except as explicitly stated herein.” LWA § 21. The Stipulated Agreement refers to the attached C&C Agreement as “a binding and enforceable agreement between the Department of Energy and the State of New Mexico.” at 3. The C&C Agreement is entered as a stipulation in settlement of the litigation commenced by the State in 1981

and would be enforceable as such. AR 180706.02, pp. 9-16 and 20 of PDF.

53. The C&C Agreement is independent of the Permit and the authority of the State under the HWA. It is not within the Secretary of the Environment's authority. It cannot be modified by any procedure involving the Permit. Neither DOE unilaterally nor NMED has any authority to change the C&C Agreement, nor any authority over other State officials who are designated by the C&C Agreement and the Stipulated Agreement entered in the New Mexico Federal District Court. Needless to say, NMED should not attempt to modify the obligations of DOE under the C&C Agreement by means of a modification of the HWA Permit.

54. DOE has publicly acknowledged that it is bound by the limit upon the volume of RH waste that is contained in the C&C Agreement, *e.g.*

In addition, the Consultation and Cooperation Agreement (C&C Agreement) with the State of New Mexico limits the volume of RH-TRU waste to 7,080 cubic meters (250,000 cubic feet).

SEIS-II at 1-3 (1997) (AR 180121.03). DOE is bound by the C&C Agreement as to RH TRU waste volume, and it is equally bound by that Agreement in its limitation on the total TRU waste capacity at WIPP, namely: 6.2 million ft³. DOE has offered no reason that it should be released from its commitment.

55. The Permit Modification Request and the Draft Permit cannot be approved, because they lack both technical and legal basis. Under RCRA, NMED is required to issue, and DOE is required to obtain, a HWA

disposal permit. The applicable regulations for a miscellaneous unit, 40 CFR § 264.601 *et seq.*, Subpart X, require the issuing authority to determine the volume of all of the waste to be disposed of, and thus to make the waste volume a part of the permit. NMED has done so. The HWA Permit sets the legal limit for waste volume. At the same time, the full scope of RCRA is maintained under the LWA, and no law endows DOE, a Permittee regulated by the Permit, with the authority to override that very Permit with some alternative calculation of the same matter—*i.e.*, maximum waste volume. NMED may, and must, give full force to RCRA’s requirements, including the application of the waste volume limitations contained in the RCRA permit. Such legal requirement, and the nonexistence of any authority for DOE to make a different determination of emplaced volume, preclude the adoption of an alternative method for determining the volume of waste emplaced at WIPP. The C&C Agreement is an independent source of DOE’s legal obligation to abide by the 6.2 million ft³ waste volume limit. The PMR must be denied.

Respectfully submitted,

/s/

/s/

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