Statement and Support for SRIC Presentation
November 15, 2024

Madam Chair and Members of the Committee:

Thank you for this opportunity to make a presentation and answer your questions. I greatly appreciate your continued attention to important radioactive and hazardous wastes issues.

I am Don Hancock, Nuclear Waste Program Director at Southwest Research and Information Center (SRIC). The 53-year-old nonprofit organization has been involved in a variety of environmental health, environmental justice, and natural resources issues throughout its history. Involvement with the Waste Isolation Pilot Plant (WIPP) began in 1972 when the Atomic Energy Commission (AEC) announced in Carlsbad that it would develop a "pilot project" for commercial nuclear power plants waste "by about 1979 or 1980."[1] Since that time, SRIC has been involved in many aspects of WIPP, including research, public information, legislative testimony and lobbying, litigation, and active participation in all aspects of the WIPP Hazardous Waste Act Permit. For more than 40 years, SRIC also has responded to requests from citizen groups, tribes, and states regarding proposed consolidated storage and repository sites, as well as addressing Department of Energy (DOE) weapons and waste sites.

My last four appearances before this Committee were the September 13, 2024 meeting in Hobbs,[2] the August 5, 2022 meeting in Clovis,[3] July 14, 2021 meeting in Carlsbad, [4] and the October 21, 2020 virtual meeting.[5] My statements included a focus on public opposition to "Forever WIPP" and the range of issues related to WIPP expansion that is contrary to existing federal and state laws, the WIPP Permit, the New Mexico-DOE Consultation and Cooperation (C&C) Agreement, and decades of promises made to the public. That's the social contract that DOE has broken and needs to be addressed.

[1] *Albuquerque Journal*, August 15, 1972, p. A-1.
[2] https://www.nmlegis.gov/handouts/RHMC%20091324%20Item%202%20WIPP%20SRIC.pdf; https://www.nmlegis.gov/handouts/RHMC%20091324%20Item%202%20WIPP%20SRIC%20Written%20Testimony.pdf
[3] https://nmlegis.gov/handouts/RHMC%20080522%20Item%201%20SRIC%20Testimony.pdf; https://nmlegis.gov/handouts/RHMC%20080522%20Item%201%20SRIC%20presentation.pdf
[4] https://nmlegis.gov/handouts/RHMC%20071421%20Item%202%20Don%20Hancock%20presentation.pdf; https://nmlegis.gov/handouts/RHMC%20071421%20Item%202%20Southwest%20Research%20and%20Information%20Center.pdf
[5] https://www.nmlegis.gov/handouts/RHMC%20102120%20Item%202%20Southwest%20Research%20and%20Information%20Center.pdf; https://www.nmlegis.gov/handouts/RHMC%20102120%20Item%202%20Statement%20of%20Don%20Hancock.pdf

My comments today will focus on recent activities related to WIPP expansion, especially the inadequacies of the DOE Legacy TRU Waste Disposal Plan, including proposing unnecessary and dangerous plutonium transportation and disposal. I reiterate the need for the DOE to significantly improve its public information about WIPP expansion.

Last year was an important one, and the next few years will be a period of significant actions and decisions that will affect New Mexico and the nation for literally generations. I greatly appreciate the Committee's continuing interest in WIPP expansion. I continue to hope that DOE and state officials will engage in serious public information efforts so that those decisions will reflect the concerns of New Mexicans and compliance with the social contract.

2023 WIPP Renewal Permit

The more than three-year process related to renewal of the WIPP Hazardous Waste Permit was notable in that the 11 parties that were involved in negotiations in June 2023 agreed on the new Permit, without the need for what would have been days of technical testimony and hearings. The parties included NMED, DOE and SIMCO as the Permittees, the Carlsbad Department of Development, six non-government organizations - Citizens for Alternatives to Radioactive Dumping, Concerned Citizens for Nuclear Safety, Conservation Voters New Mexico, Nuclear Watch New Mexico, Southwest Alliance for a Safe Future, and Southwest Research and Information Center – and Steve Zappe, as an individual. I will discuss some of the important provisions of the Permit and their implementation.

WIPP's Mission, Failures, and "Forever WIPP"

WIPP's four-part mission, as provided by the C&C Agreement and enacted in the WIPP Land Withdrawal Act:

- "Start Clean, Stay Clean" to dispose of up to 6.2 million cubic feet (175,564 cubic meters) of defense transuranic (TRU) waste. That standard has been violated because of the radiation release and resulting contamination since 2014.
- Safely transport the waste by truck to WIPP through more than 20 states without serious accidents and releases. Except for routine operational releases, there is no reported serious accident with any radiation release.
- Safely remove TRU waste from more than 20 DOE sites. I'll be discussing the progress of removing the Cold War Legacy Waste and DOE's WIPP expansion plans to bring substantial amounts of new waste that was not supposed to come to WIPP.
- Safely close, decontaminate, and decommission WIPP, beginning in 2024. DOE now wants WIPP to continue to receive waste until at least 2083, and in reality indefinitely. Hence, the accurate description of DOE wanting "Forever WIPP."

Major DOE TRU waste sites

The six major sites that have generated and stored substantial amounts of TRU waste include the Rocky Flats Plant in Colorado, which produced waste by manufacturing the plutonium pits for nuclear weapons for about 35 years, and the Idaho National Lab (INL), where Rocky Flats large amounts of Rocky Flats waste was shipped. Also in the West, Hanford's reactors in Washington produced much of the plutonium and resulting waste for those pits (and large amounts of high-level waste), and Los Alamos National Lab (LANL) designed many of the warheads and generated TRU waste. In the southeast, the Savannah River Site reactors in South Carolina also produced plutonium for weapons and generated TRU waste (and large amounts of high-level waste), and the Oak Ridge Plant in Tennessee handled some plutonium and TRU waste, though its primary mission was and is for the highly enriched uranium for those Cold War nuclear weapons.

During the past 25 years and seven months since WIPP received its first waste shipment on March 26, 1999, more than 52 percent of the volume of waste emplaced at WIPP has come from INL. More than 14.5 percent has come from each of Rocky Flats and SRS, 10 percent from LANL, 2 percent from Oak Ridge and about 1.5 percent for other sites.[6] Because of public concerns about DOE expanding WIPP for new types and amounts of waste, an important provision of the renewed WIPP Permit requires DOE to submit to NMED by November 3, 2024, the "Legacy TRU Waste Disposal Plan."[7] The Plan should provide the definition and amounts of the remaining legacy TRU waste at DOE sites and, at a minimum, the plans for reserving Panel 12 for legacy waste.

Over the past 16 months since the Permit Renewal negotiations in which all parties agreed to the prioritization for legacy waste, the overwhelming priority has been INL waste, as demonstrated by the fact that more than 85 percent of all waste emplaced. LANL's share has dropped to 6 percent. See the attached table.[8]

The Plan as submitted is not acceptable and cannot be approved by NMED for many reasons. The Plan does confirm DOE's intention to proceed with shipping non-legacy waste – surplus plutonium and plutonium pit production waste to WIPP for decades into the future. For example, "The down blended plutonium waste resulting from the Dilute and Dispose process

[6] https://www.wipp.energy.gov/general/GenerateWippStatusReport.pdf provides weekly updates on shipments and amounts of waste from each site and waste in each Panel.

[7] https://wipp.energy.gov/Library/Information_Repository_A/Searchable_Permit_4itemClass1_Aug2024.pdf Permit Part 4.2.1.5.

[8] Also note that the amount of waste is not the same in each shipment, so the number of shipments from any site does not necessarily indicate the amount of waste that is coming to WIPP.

and associated job control waste is legacy waste per the Permittees' LTWDP definition."[9] The next sentence in the Plan states: "It is expected that non-legacy operations waste, such as pit production job control waste, will continue being shipped to WIPP for disposal.

The WIPP Permit also now requires DOE to annually certify that there is sufficient capacity in permitted panels for the LANL legacy waste and to prioritize waste from LANL cleanup activities.[10] But the Legacy Plan explicitly states that not all legacy waste will be disposed by the time Panel 12, the last permitted unit, is filled. As the Plan puts it: "Legacy TRU waste will require disposal before, during, and after the availability of Panel 12."[11]

Non-Legacy Waste

a. New Plutonium Pits.

While WIPP has always been for legacy waste, the National Nuclear Security Administration (NNSA) of DOE has plans to generate a lot of new waste and has no place to put it. Over the next 60 years, DOE plans to produce at least 2,500 new plutonium pits for new nuclear weapons at SRS and 1,500 new plutonium pits for new nuclear weapons at LANL. In March 2024, DOE disclosed to the U.S. Environmental Protection Agency (EPA) that TRU waste from new pit production would constitute 25 percent of the total waste volume in WIPP in 2083.[12]

b. "Surplus Plutonium"

The U.S. has at least 48.2 metric tons of weapons-grade plutonium-239, the majority still in plutonium pits stored at the Pantex Plant in Texas that has been declared "surplus."[13] This waste is not TRU waste that was included in the WIPP Inventory in the 1970s through 2010. DOE has plans over the next 25 years or more to ship pits from Pantex to LANL, where they would be turned into plutonium oxide. The plutonium oxide would then be shipped to SRS, where it would be diluted with a classified adulterant, sometimes called "stardust." The "diluted surplus plutonium" would then be shipped to WIPP. DOE has told EPA that waste would contain more than 41 percent of the total radioactivity in WIPP by 2083.[14]

c. High-Level waste in tanks

Hanford, SRS, and INL all have high-level waste that was generated by reprocessing fuel rods to extract plutonium and uranium and placed in large tanks, some up to a million gallons. Not long

[9] https://wipp.energy.gov/Library/documents/2024/24-0772-s.pdf at 15.
[10] Permit Part 4.2.1.4.
[11] Legacy Plan at 13.
[12] https://www.epa.gov/system/files/documents/2024-03/24-0168-wipp-pcr-panels-letter-enclosures.pdf at PCR Enclosure 2, Table 4-2.
[13] https://nap.nationalacademies.org/catalog/25593/review-of-the-department-of-energys-plans-for-disposal-of-surplus-plutonium-in-the-waste-isolation-pilot-plant at 47.
[14] *Ibid. at PCR* Enclosure 2, Table 4-3.

after WIPP opened, DOE started discussing reclassifying some of the tank waste as transuranic and sending it to WIPP. There was very substantial public opposition, and since 2004 the WIPP Permit has had an "excluded waste" provision: "TRU mixed waste that has ever been managed as high-level waste and waste from tanks specified in Permit Attachment C are not acceptable at WIPP unless specifically approved through a Class 3 permit modification.[15] Permit Table C-4 lists 177 Hanford tanks, 51 SRS tanks, and 15 INL tanks as having "excluded waste."

Each of these three types of waste should be excluded from WIPP. At a minimum, NMED cannot accept and approve the Legacy Plan that explicitly includes those wastes.

Another Repository Is Necessary

That non-legacy waste is not what the State agreed to in the C&C Agreement, nor was it considered by Congress during the five years of debate on the WIPP Land Withdrawal Act from 1987 to 1992. That waste should not come to WIPP. The reason DOE proposes to send that waste to WIPP is because there is no other repository and no plans for another repository.

As I've described in previous statements to the Committee, there are legal and technical reasons to have other repositories. The non-legacy waste should go to another repository.

The WIPP Renewal Permit has a provision to require DOE to submit annually a Repository Siting Report, describing its efforts toward siting a repository in another state.[16] SRIC expects that this provision will encourage DOE to take actions to site another repository that it should have started years ago. If DOE doesn't show progress in siting another repository, the State of New Mexico should take additional measures to limit waste in WIPP.

Other states have taken such actions in the past. Colorado insisted that much TRU waste had to leave the state, and the waste was taken to Idaho. Idaho insisted that the waste couldn't stay in Idaho, and forced (through litigation and other actions) the waste to go to a repository – WIPP. South Carolina has insisted that plutonium cannot stay in that state, which has resulted in DOE's plans to have more than 60 percent of the total radioactivity in WIPP in 2083 to be from new plutonium pit production and diluted surplus plutonium at SRS.

The Public Asks DOE to take action

DOE should fully comply with the provisions of the Permit. DOE must implement a public engagement plan that clearly explain what its waste emplacement operations would be for the next 60 years, including how many years there would be no shipments and no disposal. The

[15] Permit Part 2.3.3.8.
[16] Permit Part 2.14.3.

operational plan should show the expected operational period for each panel and how that could be done safely, while also complying with the legal volume limit.

The Public Asks the State to take action

NMED must ensure that DOE fully complies with the provisions of the Permit. The State should ensure implementation of the public engagement plan, including compliance with the Legacy Waste Disposal Plan, including prioritization of LANL clean up waste. The State should provide regular updates of the actions that it is taking to ensure that a repository is being developed in another state.

Conclusion

My organization and many others look forward to significant public engagement opportunities in the next several months. We expect DOE to fully comply with Permit conditions and for NMED to ensure that compliance happens, including not accepting the submitted Legacy Waste Plan and imposing requirements that actually require prioritizing legacy waste. The WIPP Permit and NMED actions related to LANL legacy waste should ensure that waste is the highest priority over the next few years, even before Panel 12 is open.

I greatly appreciate that this Committee is examining WIPP expansion. I hope that the Governor and Legislature provide leadership so that the C&C Agreement, Hazardous Waste Act, and State and Federal laws are followed.

Again, thank you for the opportunity to make this presentation. I will be pleased to respond to your questions.

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| | | | **WIPP SHIPMENT NUMBERS AND WASTE EMPLACEMENT VOLUMES** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | July 1, 2023 - November 2, 2024 | | | | | | March 26, 1999 - November 2, 2024 | | | | |
| | Ship- | | TMW | | LWA | | Ship- | | TMW | | LWA | |
| | ments | % | m3 | % | m3 | % | ments | % | m3 | % | m3 | % |
| Argonne | 4 | 0.6 | 6.3 | 0.13 | 3.3 | 0.08 | 206 | 1.45 | 300.62 | 0.28 | 168.14 | 0.22 |
| INL | 515 | **77.44** | 3,633.10 | 75.57 | 3,532.69 | **85.45** | 7,453 | **52.49** | 54,992.52 | 50.76 | 40,809.15 | **52.38** |
| **LANL** | 57 | **8.57** | 415.96 | 8.65 | 247.93 | **6.00** | 1,671 | **11.77** | 11,693.08 | 10.79 | 7,850.54 | **10.08** |
| Livermore | 3 | 0.45 | 22.05 | 0.46 | 19.96 | 0.48 | 44 | 0.31 | 359.33 | 0.33 | 324.92 | 0.42 |
| Oak Ridge | 18 | 2.71 | 163.00 | 3.39 | 122.40 | 2.96 | 291 | 2.05 | 1,635.91 | 1.51 | 1,564.68 | 2.00 |
| SRS | 68 | 10.23 | 567.21 | 11.80 | 207.76 | 5.03 | 1,788 | 12.59 | 18,765.35 | 17.32 | 11,443.06 | 14.69 |
| Totals | 665 | 100.00 | 4,807.62 | 100.00 | 4,134.04 | 100.00 | | | | | | |
| Rocky Flats | | | | | | | 2,045 | 14.4 | 15,061.94 | 13.9 | 11,366.05 | 14.59 |
| Hanford | | | | | | | 572 | 4.03 | 5,060.79 | 4.67 | 3,941.87 | 5.06 |
| Others | | | | | | | 129 | 0.91 | 476.07 | 0.44 | 440.43 | 0.56 |
| Totals | | | | | | | 14,199 | 100.00 | 108,345.61 | 100.00 | 77,908.84 | 100.00 |
| Of 175,564 m3 capacity limit | | | | | | | | | | 61.71 | | 44.38 |
| TMW is TRU Mixed Waste that measures container volumes. | | | | | | | | | | | | |
| LWA is Land-Withdrawal Act that is a DOE calculation of waste volume. | | | | | | | | | | | | |
| Volume amounts are in cubic meters (m3). | | | | | | | | | | | | |
| Source: WIPP WDS | | | | | | | | | | | | |
| Compiled by: Don Hancock, Southwest Research and Information Center, November 13, 2024 | | | | | | | | | | | | |