

WIPP HISTORY
THE FOREVER WIPP EXPANSION
&
THE NEW SHAFT PERMIT MODIFICATION

July 20, 2020



DOE

INTRODUCTION

The Waste Isolation Pilot Plant (WIPP) is the nation's first permanent repository for radioactive waste. Although there were proposals in the 1970s to include High Level Waste (HLW) in WIPP, for decades the law, agreements, and promises have limited the site to receive only transuranic "legacy" waste from military activities. (*Transuranic* or TRU means heavier than uranium. At WIPP, most of the TRU waste is contaminated by plutonium. *Legacy waste* is waste that was created in past activities.) The Department of Energy (DOE), Congress, and State of New Mexico agreed to limits on types and amounts of waste at WIPP that were established in written agreements, permits, and federal laws.

A fundamental promise has been that there would be other repositories for commercial and defense HLW. But there is no other repository. In 1987, Congress passed a law that Yucca Mountain in Nevada would be the first HLW repository. But the site is technically flawed and has been strongly opposed by the State of Nevada and tribes and was stopped in 2010. Unless the people of New Mexico and our government officials maintain the legal limits, the promises, agreements, and laws **will be broken**.

The majority of the WIPP waste is made up of radioactive and hazardous chemicals—"mixed waste." The waste is dangerous for tens of thousands of years and can cause cancer if inhaled or ingested or by being close enough to the waste to be irradiated.

The State regulates WIPP under the federal Resource Conservation and Recovery Act (RCRA), through the New Mexico Hazardous Waste Act. The state RCRA permit for WIPP regulates the operation of WIPP and all the waste that comes to the facility. Federal laws and the RCRA permit limit WIPP to no more than 6.2 million cubic feet (175,564 cubic meters) of waste.

The RCRA permit states that waste operations end in 2024, followed by a 10-year closure period. However, DOE has applied to renew the WIPP permit again in order to support expanded plutonium pit production (the triggers

for nuclear weapons) at Los Alamos National Laboratory (LANL) and at the Savannah River Site (SRS); to make up for poor management that didn't fill waste rooms to capacity and contaminated others; and to find a place to dump new wastes that were not included in the waste inventory for which WIPP is intended. DOE wants this renewal permit to eliminate the 2024 date to create *FOREVER WIPP*.

The WIPP RCRA permit was first issued in 1999 and was renewed for 10 years in 2010. It has been modified many times. In the following *Timeline & History* we will refer to two important modifications to the operating permit: one that changes the maximum amount of waste that can be put into WIPP and one that allows WIPP to dig a new shaft.

We'll also talk about the second 10-year renewal of the operating permit. WIPP applied for this second renewal in March of this year. Public comment on the shaft modification is active now and comments on the renewal permit can also be submitted to the New Mexico Environment Department.

WIPP HISTORY & TIMELINE

1978 The DOE Secretary promises New Mexico that we will have veto power over WIPP and that WIPP will be subject to Nuclear Regulatory Commission (NRC) licensing. ***Both these promises are broken in 1979.***



December 1979 Congress authorizes WIPP (Public Law 96-164) as a pilot plant “to demonstrate the safe disposal of radioactive wastes” from U.S. defense programs. The law also provides that DOE and the State of New Mexico should “seek to enter” a Consultation and Cooperation (C&C) Agreement.

July 1, 1981 As part of a lawsuit settlement, the **C&C Agreement** is signed. Among other things, in exchange for New Mexico accepting WIPP, DOE is required to do certain hydrological and geological testing, and state monitoring is required.

1984 The **C&C Agreement First Modification** increases the geological studies required. DOE agrees to comply with all state and federal laws including Environmental Protection Agency (EPA) standards for permanent disposal of radioactive waste, and to limit the amounts and radioactivity of Remote-Handled (RH) TRU waste.

August 4, 1987 The **C&C Agreement Second Modification** limits the total volume of waste at WIPP to 6.2 million cubic feet (175,564 cubic meters). NRC certification for shipping containers is required and mining and drilling into the WIPP site area are prohibited. New Mexico Governor Carruthers says this second C&C modification resolves all state concerns.

1991 Routes for WIPP transportation are designated in New Mexico.

October 1992 The **WIPP Land Withdrawal Act** (Public Law 102-579) is passed. This Act provides numerous standards and requirements for WIPP, including, again, that the waste volume will be limited to 6.2 million cubic feet of transuranic (TRU) waste; that WIPP must comply with EPA disposal regulations; that it must have a RCRA

permit; that DOE must fund upgrading New Mexico's highways; and that HLW is prohibited—**another broken promise** as DOE ignores this prohibition for some HLW.

1998 EPA certifies that WIPP meets permanent disposal standards for the long-term (10,000 years) isolation of transuranic waste. This EPA certification must be renewed every 5 years.

February 1999 The initial State RCRA permit hearing begins and runs 5 weeks. The New Mexico Environment Department's (NMED) Hazardous Waste Bureau is in charge of WIPP's RCRA permit and public participation for the permit.

March 26, 1999 WIPP receives its first waste shipment from Los Alamos National Laboratory (LANL). This "purely radioactive" shipment (of NASA's Cassini waste) is shipped on the last day of the hearing and before the RCRA permit has been issued.

October 27, 1999 NMED issues the RCRA permit for WIPP. The permit must be renewed every 10 years. Provisions include that the maximum waste volume at WIPP is limited to 6.2 million cubic feet and that disposal operations end in 2024 with a 10-year closure period after that. The permit has been renewed once and modified multiple times.

February 5, 2014 An underground vehicle fire at WIPP forces the facility to stop operations and evacuate all 86 workers from the underground. Six workers go to the hospital because of smoke inhalation, and one is permanently disabled.



February 14, 2014 One or more drums that were improperly packaged at LANL explode underground causing a radiological release and contaminates 22 workers on the surface. WIPP is shut down for three years. Because of contamination from the explosion and a poorly designed ventilation system (DOE had assumed there would never be a significant radiation release) when WIPP reopened in 2017, only 25% of the previous 425,000 cubic feet/minute of air flow can be provided underground.



The drum(s) exploded in WIPP because, in trying to meet an arbitrary deadline to receive their bonus, supervisors at LANL demanded that workers continue to ship drums to WIPP even when those workers complained about obvious safety problems (smoke and orange foam leaking out of the drums). "Put the lid on and ship it!" was the order. In fact, hundreds of drums had been mixed with the wrong drying agent that caused them to become potentially explosive. The WIPP contractor failed to assure that such

incompatible waste was not shipped to WIPP. Both WIPP and LANL were shown to have acted recklessly and irresponsibly in scathing accident reports on the underground fire and exploding drum(s).

EXPANSION PLANS FOR FOREVER WIPP & THE NEW SHAFT'S PLACE IN THEM

December 22, 2017 DOE submits a modification request for the new shaft and associated drifts (corridors), asking for approval as a class 2 modification. Environmental organizations protest that the request is part of a WIPP expansion and must be a class 3 modification, with more extensive public comment and public hearing requirements.

January 31, 2018 DOE and Nuclear Waste Partnership, LLC (NWP) (WIPP co-permittees) file a **“Volume of Record” permit modification request** with NMED using a new way of calculating the amount of waste disposed of at WIPP. (Instead of counting the outside volume of each container as had been done for decades, DOE can decide the amount of waste in each container.) This change decreased the volume of waste calculated to be at WIPP by about 30 percent.

DOE has provided no new environmental impact statements about the effects on the public of increased disposal and transportation since 1997. They have not done any exposure studies for this current volume increase, as required by RCRA, since then either. Nor have they researched to see if the increase would cause disparate effects on minority communities near the site or near the transportation routes. (It is as important to understand effects along the transportation routes to WIPP as understanding exposures from the WIPP site itself. Perhaps even more important, as almost all the negative health effects from the entire WIPP project during normal operations occur along the transportation routes.)

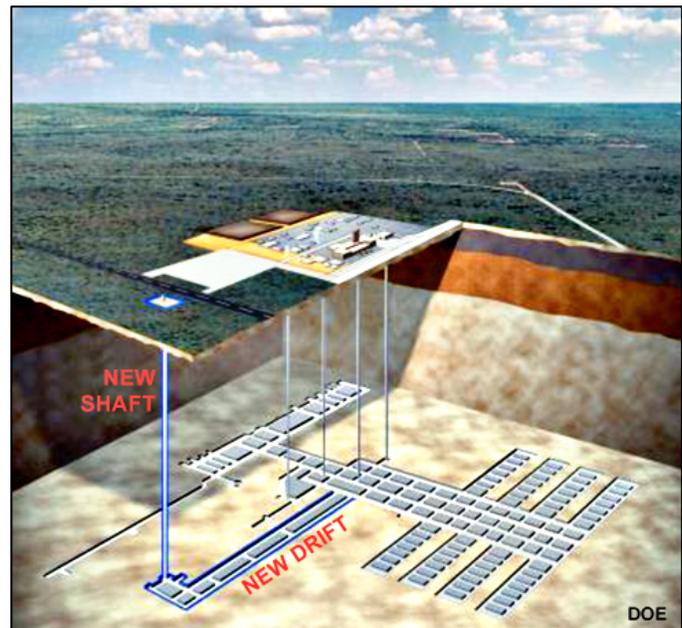
March 23, 2018 NMED approves DOE's permit request to build a **new filter building**. This building will increase air flow into the underground at WIPP from 25% to more than 100% of the pre-explosion air flow, *without* the addition of another shaft.

December 21, 2018 NMED approves the **“Volume of Record” permit modification**.

January 2019 Concerned Citizens for Nuclear Safety (CCNS), Nuclear Watch New Mexico (NWNM), and Southwest Research and Information Center (SRIC) file appeals in the New Mexico Court of Appeals, asking the court to overturn the “Volume of Record” permit modification. This litigation is ongoing.

August 15, 2019 DOE withdraws the December 2017 permit modification request and submits a **class 3 request to excavate a new shaft and connecting drifts** (corridors). Though DOE and NMED describe the new shaft (Shaft #5) as a “ventilation shaft” when talking with the public, the new shaft has nothing to do with increasing ventilation in the WIPP repository. That ventilation is provided completely by the New Filter Building.

Under the C&C Agreement and the WIPP Land Withdrawal Act, DOE must comply with all applicable state and federal laws, including meeting EPA standards for permanent disposal of radioactive waste. DOE must also comply with the National Environmental Policy Act (NEPA) that prohibits “segmenting” major changes—breaking them up into separate parts so that major studies and other public participation procedures can be ignored. But this is exactly what DOE is trying to do. The 1997 WIPP second environmental impact statement (EIS) does not include information on recalculating the waste volume or a new shaft. A new EIS should be



researched and written. DOE is trying to avoid this by claiming that each part, of what is really a major WIPP change and expansion, is not important enough for its own EIS.

September 2019 DOE releases the WIPP **Draft 2019-2024 Strategic Plan** with the objective of operating WIPP through the year 2050 to emplace, not the statutory limit of 6.2 million cubic feet, but the entire “existing defense TRU waste inventory.” **Another broken promise.**

December 2019 DOE releases their **draft WIPP 10-year permit renewal application** that proposes to change the end of Disposal Operations from 2024 to 2052.

December 2019 DOE releases a NEPA document that provides that TRU waste from 50 years of **future plutonium pit production (2030-2080) will be disposed of at WIPP**, (*the Final Supplement Analysis of the Complex Transformation Supplemental Programmatic Environmental Impact Statement*, DOE/EIS-0236-S4-SA-02). **Breaking their promise again.**



Plutonium pits are the "triggers" for atomic bombs. DOE claims we need to ramp up production of these pits at both LANL and Savannah River Site to maintain the "safety and reliability" of our nuclear stockpile. Yet, not only will the current pits in our stockpile remain safe and reliable for decades, but DOE also has 15,000 existing pits stored at its Pantex Plant in Texas.

In fact, **the new pits have nothing to do with the safety and reliability of the nuclear stockpile.** Instead, they will be constructed with a new, heavily modified design and are created for speculative, newly designed atomic bombs to replace the weapons that are in the stockpile now. The new pits and new bombs might actually make the stockpile *less* reliable, as they can't be physically tested unless we start underground nuclear tests again. (The current administration has already proposed to begin nuclear weapons testing at the Nevada Test Site, now known as the Nevada National Security Site.) DOE's statements to the public that they need these new pits to keep the nuclear stockpile safe and secure are actually **more lies.**

Radioactive waste from building these new plutonium pits is transuranic waste and would be sent to WIPP if it remains open past 2024. **Finding a place to put this plutonium pit waste is a major reason for the proposed expansion of FOREVER WIPP.**

January 2020 DOE applies for an emergency **Temporary Authorization (TA) from NMED to dig the new shaft** before the required public comment and hearing process has even begun and before the modification has been approved. **Again it is implied that this is an emergency** because the underground workers at WIPP are struggling with only 25% of the airflow they need.

However, this is **another lie.** **The new shaft is not needed to increase airflow at all.** The New Filter Building, (approved in 2018) which will come online in about one year from now (and about two years before the shaft is finished) will provide more than enough air for the underground workers—without the shaft. In fact, the shaft is sited nowhere near the current WIPP facility, but 1,200 feet west of the repository. DOE will have to excavate

corridors or "drifts" to connect the current underground repository to the new shaft. "Coincidentally," the new drifts and new shaft are part of the WIPP expansion design. Waste panels and waste rooms, where the new waste would be placed, will be excavated along each side of the two new drifts.

March 2020 DOE submits their final application for the 10-year renewal of their RCRA operating permit. This renewal proposes to delete 2024 completely as the end of Disposal Operations and to provide no end date at all for waste emplacement. For DOE, **FOREVER WIPP has now become official.**

April 2020 DOE releases the *Draft Environmental Impact Statement for Plutonium Pit Production at the Savannah River Site in South Carolina* (DOE/EIS-0541). This draft EIS states that TRU waste generated from 2030-2080 would all be disposed at WIPP.

April 24, 2020 NMED approves the TA and DOE begins to excavate the new shaft. DOE estimates that it will take 17 months to sink the shaft and 8 months to mine the drift to connect the shaft to the current repository. An additional year for startup and testing brings the time needed for the total project to become operational to 37 months. Over the last 5 years Congress has appropriated more than \$106 million for this proposed shaft which is about half of the \$200 million total estimated cost.

June 12, 2020 NMED notifies the public of their intention to approve the shaft permit modification to create a new WIPP shaft and connecting drifts, and of a 60-day comment period, ending at 5:00 pm on August 11, 2020.

PROBLEMS WITH THE SHAFT PERMIT MODIFICATION

There are many problems with the shaft modification. Perhaps the biggest is that NMED has given WIPP a Temporary Authorization (TA) to start excavating the shaft before they have issued final approval of the shaft modification.



Excavation began in April of this year and is continuing as you're reading this. Southwest Research and Information Center (SRIC) is asking the State Supreme Court to invalidate the TA and stop the digging.

IS IT A VENTILATION SHAFT?

The TA is connected to another big problem—that **NMED claims the new shaft is needed to control ventilation airflow underground**, saying in the Fact Sheet that "... the proposed new shaft is important for current underground operations and worker safety." This allows NMED to authorize doing an end-run around public participation with the TA because

of the great need ("emergency") for more airflow. Yet DOE, NMED and pretty much everyone else involved with WIPP knows that the **New Filter Building will soon provide all the necessary air that the underground workers need**—without an additional \$200 million shaft.

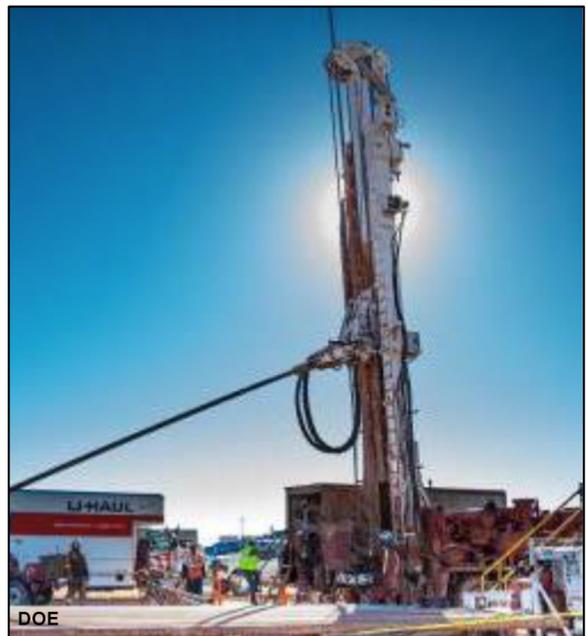
Also in the Fact Sheet, though they admit that the new shaft could be useful if new disposal units are ever built, **NMED specifically denies that expanding WIPP is the primary reason for building a new shaft** and continues to claim it's an exhaust shaft for airflow. If that's what it's for, why build it 1200 feet west of the repository so they have to build corridors, or "drifts" to connect the shaft and the current repository? Oh, and the drift also just

happens to be where they will build the new panels and waste disposal rooms for the new, expanded WIPP. And if there's insufficient air for underground workers, why is WIPP not shut down until the new ventilation is operating?

DOE's WIPP *Draft Strategic Plan* and *FY 2019 and 2020 Budget Requests* are more candid than the Fact Sheet and call the shaft a "**utility shaft.**" The *Budget Requests* state that the "... exhaust shaft has been renamed the utility shaft, which provides the best description for the **multiple capabilities** the shaft could be utilized for..." Capabilities include hoisting salt out, bringing waste in, handling other materials, transporting personnel, emergency escape, and, of course, air flow. The *Budget Requests* go on to say that the "... new shaft would better serve as an intake shaft ..." Shaft #5 is not primarily a ventilation shaft and it's certainly not an exhaust shaft, but **it is an integral part of the proposed expansion of WIPP.**

WHAT ABOUT THE PUBLIC PROCESS?

There are serious problems with the public participation process for the Shaft Permit Modification, particularly for members of the public who are Low English Proficiency (LEP) Spanish speakers, and for potentially affected communities of Hispanic or Mexican descent near WIPP. The general public is seriously affected as well. Both the Public Notice and the Fact Sheet claim that the shaft is a ventilation shaft and is needed for workers in the current repository when we know it is not. Neither document says anything about the TA or explains that the shaft is being drilled right now. Neither document tells the public that the Administrative Record is online and neither document tells the LEP public that document translation and interpretation are available or how to obtain these, even though the Public Involvement Plan (PIP) for WIPP says they must. (Perhaps it is because the PIP also says NMED can only afford to translate a public notice and a Fact Sheet and nothing else.) Both documents say NMED will charge for copies of documents from the Administrative Record even though access is limited and/or unsafe during this Covid-19 emergency.



The LEP community is particularly hard hit as very little information is translated for them even though NMED has agreed to translate enough documents so LEP persons have the same access to vital information as English speakers do. Unfortunately, only the Fact Sheet and the Public Notice are translated. Both documents have several mistakes and the Fact Sheet includes very little detail. It is certainly not a summary of the permit modification or of the hydrology and geology around WIPP or of any other vital document, even though, again, NMED has promised to provide these. No community concerns (for example: transportation, water, air emissions, low life expectancies and poor health), except some translation and notification concerns, are even mentioned in any document about this modification despite WIPP being in the middle of an area with high cancer mortality and some of the lowest life expectancies in the state.

NMED has called WIPP's permit modification application complete even though it does not include an exposure or effects study, despite one being required by RCRA. Again, NMED already agreed to require such studies. They haven't required that WIPP demonstrate that, on closure, it can **seal such a large shaft** excavated in the local karst geology. Even EPA has shown concern that radiation could leak out. Hazardous gasses could leak as well. Whether or not WIPP can seal the shaft would directly affect any exposure study. That NMED requires neither is

irresponsible and reckless. Needless to say, there are no plans to determine if the new shaft would create a disparate impact on nearby affected communities.

With granting the Temporary Authorization, NMED is doing an end-run around meaningful public participation. NMED is required to take public comment into consideration when deciding whether or not to issue a permit modification or whether to add conditions to that modification in order to protect human health and the environment. But NMED clearly demonstrated that nothing the public could say could change their opinion. Though they claim they could change their mind at any time, do they really think we can believe they would do that if the shaft were an eighth, or half, or more completed before the public process was finished? Without a proper and complete public process, important information and important steps are missed. Each month the process is delayed to, say, fix the Public Notice and the Fact Sheet, the shaft is another month closer to completion. This shows the arbitrary and capricious behavior by the NMED in not conducting the required public permitting process as required by law.

Before the public process for the 10-year permit renewal and *FOREVER WIPP* expansion even begins, a major chunk of that expansion will already have been built—the shaft and the connecting drifts along the sides of which WIPP only needs to add waste panels and waste rooms to have the expansion fully in place. How "meaningful" can public participation be when NMED allows the DOE to finish the basic project buildout before listening to and considering public input?



WHAT IS THE REAL REASON FOR THE TEMPORARY AUTHORIZATION?

So, if air flow needs for the current facility are not the reason getting the shaft built is such an emergency, what is?

Perhaps the artificial deadline relates to financial incentives and performance bonuses for DOE's co-permittee on WIPP, Nuclear Waste Partnership, if they meet certain performance deadlines for the shaft. This is particularly frightening because this is exactly what caused explosive drums to be sent to WIPP from LANL. An artificial deadline was created by offering a large bonus if all the WIPP waste at LANL

was removed to WIPP by a certain date. Massive safety red flags were ignored to meet this deadline. Neither WIPP nor LANL has a good safety history and even now, both seem to consider safety to be a "journey." A journey that never seems to arrive at their safety destination. Not knowing if they can seal the very large, new shaft before they started digging it, is an example of how WIPP continues to take a reckless attitude toward safety; something NMED allows, especially when bonuses are involved.

NMED must withdraw the Temporary Authorization. Then it must correct the public process, and proceed in a measured and responsible manner. NMED must stop ignoring the C&C Agreement, federal laws, and other provisions of the Permit that prevent *FOREVER WIPP*.

For more information:

Southwest Research and Information Center at <http://www.sric.org>

Concerned Citizens for Nuclear Safety at <http://nuclearactive.org/>

Nuclear Watch New Mexico at <https://nukewatch.org/>

Citizens for Alternatives to Radioactive Dumping at <http://www.cardnm.org>