Hello all,

Just an FYI..

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Fight for WIPP: A History of the Nation’s Deep Geologic Nuclear Waste Repository
The first transuranic waste shipment arrives at the Waste Isolation Pilot Plant in the early morning of March 26, 1999.

CARLSBAD, N.M. – For some residents of southeastern New Mexico, 20 years is too long ago to remember. They have always seen trucks heading to EM’s Waste Isolation Pilot Plant (WIPP).

For others, they will never forget the day two decades ago when a truck carrying waste to WIPP from DOE’s Los Alamos National Laboratory was lauded as the beginning of a new era.

Some were employees who had worked to see the facility open and begin its national mission. Others were area officials and business leaders who had worked tirelessly advocating for WIPP.

An estimated 500 people were onsite in the early morning hours of March 26, 1999. After a fog delay the prior day and hours of waiting, everyone was tired and cold. But that didn’t matter when, at about 3:30 a.m., the lights of the truck were spotted. Cheers and applause quickly broke out.

The noise level grew when the driver honked the horn in the vehicle trap and again when the truck drove onto the site. Flags were waved, hugs were shared, and tears flowed as area residents looked back to the beginnings of WIPP.
It was the early 1970s when Carlsbad community leaders began lobbying for a nuclear waste repository after state Sen. Joe Gant, Jr., saw a newspaper article about a proposed repository in the salt beds of Kansas. In the 1950s, the National Academy of Sciences had recommended salt deposits for the permanent disposal of radioactive waste, as salt would slowly encapsulate the waste, isolating it from the environment.

In Kansas, the U.S. Atomic Energy Commission — the predecessor agency to DOE — abandoned plans due to extensive area drilling and political opposition. Meanwhile, Carlsbad was facing an economic downturn, with about 1,000 people out of work after the U.S. Borax potash mine closed. Gant talked to a friend, U.S. Rep. Harold Runnels of New Mexico, who liked the idea of looking at southeastern New Mexico's salt beds for the project.

A large amount of data was available due to the local potash industry: extensive and thick beds of high quality salt sat at the right depth; the area was marked by low rainfall and population density; and much of it was owned by the U.S. government.
In June 1998, Sandia National Laboratories Waste Isolation Pilot Plant Project (WIPP) Manager Wendell Weart stands in front of the dedication plaque for Room 6 of Panel 1 in the WIPP underground.

Area officials began to learn everything they could about the project to try to get it moved to southeastern New Mexico, including Carlsbad Mayor Walter Gerrells, Carlsbad Chamber of Commerce Executive Director (and later state senator) Louis Whitlock, and Carlsbad Department of Development Director Eddie Lyon.

While residents knew a lot about area mining operations, there was still a lot to learn about the proposed project. A valuable resource was Dr. Wendell Weart, the Sandia National Laboratories WIPP program manager, who directed WIPP site evaluation studies and became the go-to salt-waste interaction expert.

Carlsbad Citizens for Energy Development was formed, and residents traveled extensively, promoting the project and attending hundreds of hearings over many years at the federal and state levels, often finding themselves greatly outnumbered by project opponents.

Opposition to the project was strong in northern New Mexico. In the mid-1970s, a bill proposed in the state legislature to block WIPP was narrowly defeated by a House vote of 36-34.
In 1979, Congress authorized WIPP as a research and development facility to demonstrate the safe disposal of radioactive waste from defense activities not regulated by the U.S. Nuclear Regulatory Commission.

In 1981, DOE proceeded with construction, first drilling an exploratory shaft. In 1989, construction was completed, the same year the primary waste shipping container TRUPACT-II was certified.

But the road to opening WIPP would prove to be much longer than expected.

Over the years, strong support came from U.S. Rep. Joe Skeen and U.S. Sen. Pete Domenici at the federal level. On the state level, officials such as Rep. John Heaton and Sen. Don Kidd were vocal proponents, along with Carlsbad Mayor Bob Forrest.

A major battleground was the federal court system, including two lawsuits brought by the State of New Mexico. The first, in 1981, was settled by the Consultation and Cooperation Agreement, which allowed for increased communication, more studies, and addressing off-site concerns such as highway improvements.
A 1991 lawsuit brought by the state addressed the U.S. Interior Department's withdrawal of land from public use for WIPP. The following year, a key milestone for WIPP was passage of the Land Withdrawal Act, which transferred jurisdiction of the land to the DOE. That act also required the U.S. Environmental Protection Agency to certify that WIPP had met all applicable federal radioactive waste disposal regulations. That certification was received in 1998.

The following year, a federal court decision paved the way for WIPP to open. Lawsuits by the state and several environmental groups had previously denied WIPP's interim status under the U.S. Resource Conservation and Recovery Act, which would allow the facility to be treated as if it had received a state permit. In 1999, a federal judge ruled in favor of interim status. WIPP received its state hazardous waste permit later that year.

In the days immediately preceding the first shipment, there were three last-minute court appeals. All were rejected by judges in Washington, D.C., and Santa Fe.

In Santa Fe, dozens of protesters lined the route when the first truck headed for Carlsbad, and there were reports of two people who tried to block the road. The truck was escorted by state police, with law enforcement checkpoints and tactical team members at the site. In Carlsbad, it was predominately supporters who lined the route, and there were no protests at the site.

Twenty years later, more than 12,000 shipments have traveled to WIPP, without fanfare, from waste generator sites across the country. And deep beneath the desert, a national environmental problem continues to be solved, thanks to those who fought the long fight for WIPP.

 CONTRIBUTOR: Victoria Parker

By the Numbers: 20 Years of WIPP
Accomplishments
Workers Make Headway on New System to Increase WIPP Airflow

CARLSBAD, N.M. – Progress continues on a new $135 million ventilation system at EM’s Waste Isolation Pilot Plant (WIPP).
Workers have installed construction and crane roads on the construction site for the new Safety Significant Confinement Ventilation System (SSCVS). Later this month, the project's primary subcontractor, Critical Applications Alliance (CAA), will begin utility excavation for a building that will house equipment for removing salt dust from the air before it enters the filtration unit. Work on a concrete batch is underway for the ventilation system foundation.

Workers have made progress on the Safety Significant Confinement Ventilation System, advancing from a 2016 illustration of the system's capital project (at top) to the fabrication of components for the system this year.

SSCVS provides a modern air supply system designed to run continuously in unfiltered or high-efficiency particulate air filtration mode. The system will provide approximately 540,000 cubic feet per minute of air to the underground, significantly more than the maximum 170,000 cubic feet per minute provided by the current ventilation system.

The increased airflow will allow simultaneous mining, rock bolting, waste emplacement, maintenance, and experimental scientific operations.
The SSCVS is key to full operations at WIPP after a 2014 truck fire and unrelated radiological event temporarily closed the facility.

It will be the largest containment fan system among DOE facilities and the largest construction project at WIPP in close to 30 years. The project is scheduled to be completed by 2021.

-Contributor: Maelene Soto

Quick Facts About EM's Waste Isolation Pilot Plant

- U.S. Department of Energy Facility
- Designed for permanent disposal of Transuranic (TRU) radioactive waste
- 2,150 feet deep

A cross section of the Waste Isolation Pilot Plant repository.

CARLSBAD, N.M. – Following are quick facts about EM’s Waste Isolation Pilot Plant.
Salt at WIPP was deposited in thick beds about 250 million years ago during the evaporation of the Permian Sea, an ancient ocean.

The facility's disposal rooms are nearly a half mile, or 2,150 feet, below the surface.

WIPP only accepts transuranic (TRU) waste. TRU waste is comprised of debris, residues, soil, and other items contaminated with radioactive elements — largely plutonium — that have atomic numbers greater than uranium.

TRU waste at WIPP was generated by the nation's nuclear defense program.

Approximately 96 percent of the total volume of waste to be disposed at WIPP will be contact-handled TRU waste. The remaining 4 percent will be remote-handled TRU waste.

The major regulators at WIPP are the U.S. Environmental Protection Agency and the New Mexico Environment Department. A number of other agencies, committees, and panels monitor WIPP's progress.

EM's Carlsbad Field Office leads the nation's TRU waste disposal effort, coordinating TRU waste cleanup at generator sites around the country.

-Contributor: Victoria Parker

Timeline: Highlights From WIPP's First 20 Years

Left to right, Carlsbad Mayor Gary Perkowski, U.S. Sen. Pete Domenici of New Mexico, Energy Secretary Bill Richardson, U.S. Sen. Jeff Bingaman of New Mexico, and EM Carlsbad Field Office Manager Keith Klein cut a ribbon on the Waste Isolation Pilot Plant during the facility's grand opening celebration on April 11, 1999.
CARLSBAD, N.M. – Following is a timeline of significant events at EM's Waste Isolation Pilot Plant since the facility’s grand opening in 1999:

- **1999**
  The first shipment arrives at EM’s Waste Isolation Pilot Plant (WIPP) on March 26. Hundreds of employees, local officials, and media are present. The shipment originated at Los Alamos National Laboratory (LANL).

- **2002**
  First shipment of waste characterized (container contents verified) by the National Transuranic (TRU) Program’s mobile Central Characterization Project arrives at WIPP from the Savannah River Site.

- **2003**
  WIPP’s Panel 1 filled.

- **2004**
  WIPP’s Silver Mine Rescue Team is named overall champion at the National Mine Rescue Competition, retaining the title it won in 2002.

- **2005**
  Rocky Flats site sends its final TRU waste shipment to WIPP, allowing Rocky Flats to close a year ahead of schedule.

- **2006**
  New Mexico Environment Department (NMED) issues WIPP permit to dispose remote-handled TRU waste (RH-TRU).

- **2007**
  First shipment of RH-TRU waste arrives at WIPP. The shipment originated at DOE’s Idaho National Laboratory (INL).
  For the 21st time in 22 years, WIPP is awarded the New Mexico Mining Association’s Mine Operator of the Year award for safety.
2009
WIPP receives transportation safety award from the United States Transport Council. WIPP celebrates 10 years of safe operations.

Waste Isolation Pilot Plant workers gather to mark the facility's 10 years of safe operations.

2010
WIPP surpasses 10 million safe loaded miles of waste shipments to the facility.

2011
WIPP receives 10,000th waste shipment.

2012
New Mexico Gov. Susana Martinez visits WIPP to see final shipments arrive from Sandia National Laboratories.
NMED awards WIPP a Green Zia award for environmental conservation.

2014
WIPP temporarily suspends underground emplacement operations following a fire on a salt haul truck. Days later, a radiological release occurs underground in Panel 7, Room 7, which is later determined to have resulted from a LANL drum that contained incompatible materials.
WIPP's Red Mine Rescue Team is named overall champion at the National Mine Rescue Competition championship.
Waste handlers at work in the WIPP repository's Panel 7.

- **2015**
  Initial closures for Panel 7, Room 7, and Panel 6 are completed.
  
  First hybrid bolter in use underground.

- **2016**
  WIPP's Blue Mine Rescue Team wins the National Mine Rescue Competition championship.
  
  Gov. Martinez cuts the ribbon at the grand opening of a new Emergency Operations Center.
• 2017

Waste emplacement resumes. Energy Secretary Ernest Moniz, Gov. Martinez, and members of the New Mexico congressional delegation attend a grand reopening ceremony.

Waste shipments resume, with the first shipment coming from INL.

• 2018

Mining resumes at WIPP.

Ground is broken for the Safety Significant Confinement Ventilation System, which will replace the existing ventilation system and significantly increase underground airflow.

Closure of the south end of the mine is completed.
A crew prepares a waste shipment at Los Alamos National Laboratory for transport to the Waste Isolation Pilot Plant.

LOS ALAMOS, N.M. – DOE’s Los Alamos National Laboratory (LANL) transported the first defense-generated transuranic (TRU) waste shipment received at the Waste Isolation Pilot Plant (WIPP) in 1999. Today EM’s Los Alamos Field Office (EM-LA) works closely with WIPP to achieve its central goal of removing legacy waste from the lab site.

“Our objective at LANL is to reduce risk to the public, workers, and the environment,” EM-LA Manager Doug Hintze said. “Our strong relationship with our partners at WIPP helps us to execute our mission safely and efficiently. We congratulate our colleagues and neighbors in southern New Mexico on their historic anniversary and look forward to continue collaborating with them.”

EM-LA waste shipments to WIPP from Technical Area 54’s (TA-54) Area G at LANL resumed in October last year following WIPP’s reopening in January 2017. TA-54 is LANL's waste management area. Area G is a site within TA-54 where LANL’s TRU and low-level waste is stored, characterized, remediated, and shipped offsite.

On April 4, EM-LA and its cleanup contractor, Newport News Nuclear BWXT-Los Alamos, completed its first 2019 shipment of TRU waste to WIPP.

-Contributor: Steven Horak

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As many as seven transuranic waste shipments leave DOE's Idaho National Laboratory Site each week headed for EM's Waste Isolation Pilot Plant.

CARLSBAD, N.M. – As the Waste Isolation Pilot Plant (WIPP) celebrates its 20th anniversary, the largest shipper to the facility — the EM program at DOE's Idaho National Laboratory (INL) Site — is set to achieve a milestone of its own.

The INL Site is scheduled to complete its mission to treat transuranic (TRU) debris waste at the Advanced Mixed Waste Treatment Project (AMWTP) this year. Just 1,400 cubic meters of waste — about half of that TRU debris waste — remains at the facility to be characterized, treated, and repackaged.

To date, the INL Site has made over 6,200 shipments to WIPP containing more than 46,000 cubic meters of contact- and remote-handled TRU waste.

A defining feature of the AMWTP is its supercompactor, which reduces the size of waste. An average of five 55-gallon barrels can be crushed to fit into an overpack drum prior to certification and shipment. In this way, the INL Site has saved about 25,000 cubic meters of disposal space at WIPP, and the equivalent of about 6,000 shipments.

Jack Zimmerman, DOE Idaho Deputy Manager for Environmental Management, congratulated employees at WIPP for 20 years of dedicated service.

"Your role is crucially important to helping us meet the cleanup commitments to the citizens of Idaho," he said.

The waste at AMWTP originated at the now-closed Rocky Flats Plant and other DOE generator sites. Approximately 65,000 cubic meters of waste was shipped to Idaho beginning in 1970. The waste was placed on an asphalt pad and covered with clean soil. Construction of the AMWTP began in the mid-1990s to retrieve, characterize, treat, certify, and ship the waste to WIPP and other disposal facilities.
The INL Site also ships to WIPP TRU waste exhumed from an unlined Cold War landfill that accepted offsite waste from 1954 to 1970. Since 2005, EM contractors have exhumed more than 8,000 cubic meters of waste from a combined area of 5 acres of that landfill. More than 20,000 containers of that waste — or about 4,350 cubic meters — remain to be shipped to WIPP.

-Contributor: Erik Simpson

Workers Reflect on 20 Years: 'Waving at the First Shipment Down to WIPP'

J.R. Stroble
Organization: EM Carlsbad Field Office (CBFO), Office of Business
Years with WIPP: 28

Stroble started at EM’s Waste Isolation Pilot Plant (WIPP) in 1990 in electrical engineering with the management and operations contractor. He has been with the WIPP project for 28 years and is currently director of the Office of Business.

Watch Stroble’s testimonial here.
Berry Pace  
**Organization:** Nuclear Waste Partnership, Quality Assurance  
**Years with WIPP:** 30

Pace started with the WIPP project in 1989 as a material control specialist. During his 30 years at WIPP, Pace has worked in regulatory assurance, the National TRU Program, and quality assurance.

Watch Pace's testimonial [here](#).

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Bobbye Johnson  
**Organization:** Westinghouse TRU Solutions, Project Integration  
**Years with WIPP:** 23

Johnson joined the project in 1996 with the CBFO technical assistance contractor.

Watch Johnson's testimonial [here](#).
Al Tornabene
Years with WIPP: 32

Tornabene joined the WIPP project in 1987 during the construction phase. Over his 32 years with the project, he has worked in various departments. Tornabene currently works in information resource management.

Watch Tornabene’s testimonial here.

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CARLSBAD, N.M. — Transuranic waste processing involves characterization at the waste generator sites, transportation to the Waste Isolation Pilot Plant (WIPP), waste handling, and emplacement 2,150 feet below the desert floor in the WIPP repository.

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Early Career Professional Believes WIPP is Right Place for Career Growth

Forrest Queen, ventilation engineering manager at EM’s Waste Isolation Pilot Plant.

CARLSBAD, N.M. – Forrest Queen has advanced his career quickly, going from Washington State University graduate to ventilation engineering manager at EM’s Waste Isolation Pilot Plant (WIPP) in just four years.

Queen began work at WIPP as an associate engineer. His father, who was working at the Hanford Site at the time, recommended he apply for the position. Queen’s glad he did.

“When you first come into the industry, you can feel a little isolated being a young person surrounded by people who are far along in their careers, but that also presents a unique opportunity,” Queen said about working as an early career professional at WIPP.

WIPP, like other DOE sites, struggles with filling vacant mid-level positions as workers retire in an aging workforce.

“There aren’t many mid-level engineers,” Queen said.

This provides a unique opportunity for Queen and other early career professionals to move up in their careers.

“With the aging workforce, as a young professional, it gives you more opportunity than you would see in other industries,” said Queen.
Queen has been helping his coworkers progress their careers through his role as president of WIPP’s early career professionals organization, which focuses on professional development, community service, and social networking.

“It's a great organization for new people coming in, and you can get involved, meet people close to your age range, get involved in social activities, and it helps ease the transition, especially if you're coming in from outside of the area,” he said.

Queen believes networking is critical to the job search.

“The most beneficial thing in getting your career started is to get out there and get to know people because the hiring process is hard. People see so many resumes,” he said. “If you can network your way in and meet people, it will make a stronger connection.”

WIPP provides many benefits and opportunities to those starting their careers, Queen said.

“You have immense opportunities to step up and advance your career at an accelerated rate. If I worked somewhere else, there’s a good chance that my career would take much longer to progress,” he said.

-Contributor: Maelene Soto

Community Celebrates 20th Anniversary With Ice Cream, Bounce House and More

Trucks used for transporting waste shipments were on display for public viewing during a recent ice cream social in Carlsbad held to celebrate the Waste Isolation Pilot Plant's (WIPP)
20th anniversary. Carlsbad Mayor Dale Janway proclaimed March 26-April 26 as WIPP Appreciation Month.

Children create sidewalk art.
Informational materials about the Waste Isolation Pilot Plant's operations were on hand.

Children jump around in an inflatable playhouse as part of festivities.

Longtime WIPP Driver Logs More Than 4 Million Miles
CARLSBAD, N.M. – Randy Anderson has logged more than four million miles in a professional driving career that began in 1967, when he was fresh out of high school.

He’s driven many of those miles while transporting transuranic (TRU) waste to EM’s Waste Isolation Pilot Plant (WIPP).

“I work with a great group of people,” said Anderson, whose career has brought him to all lower 48 states. “They are the best drivers you will ever find on the nation’s highways.”

At his brother’s suggestion, Anderson, a Wisconsin native, moved to Carlsbad and began work for CAST Specialty Transportation, which was awarded its first contract for WIPP transportation services in 1995. CAST continues to work for WIPP today in the same capacity.

“I was actually the second driver hired by CAST when they received the contract,” Anderson said.

Anderson is a man of many firsts and lasts. On March 26, 1999, he was one of two drivers to deliver the first TRU waste shipment to WIPP, coming from DOE’s Los Alamos National Laboratory.

Anderson supported the first waste shipment to WIPP from the Hanford Site in Washington state, and also helped deliver to WIPP the first remote-handled waste shipment and the first shipment using a TRUPACT-III shipping container.

As for a last, Anderson was part of the team to transport the final TRU waste shipment from the now-closed Rocky Flats Plant in Colorado to WIPP.

WIPP drivers must meet extensive driving and background requirements before being considered for employment. Once employed, they receive training on transporting TRU waste from generator sites across the country. This includes package securement devices, use of radiation detection equipment, emergency management, and much more. In all, WIPP drivers receive almost 200 hours of training before they transport their first shipment of TRU waste.

WIPP drivers have safely transported over 12,000 shipments of TRU waste, totaling over 14.8 million safe loaded miles.
"I have been fortunate to be a part of many of these shipments, but I didn’t do it alone. I have always had great co-drivers," Anderson said. "This is truly a team effort. We help each other. We all take great pride in our safety record and the safety of the shipments."

-Contributor: Bobby St. John