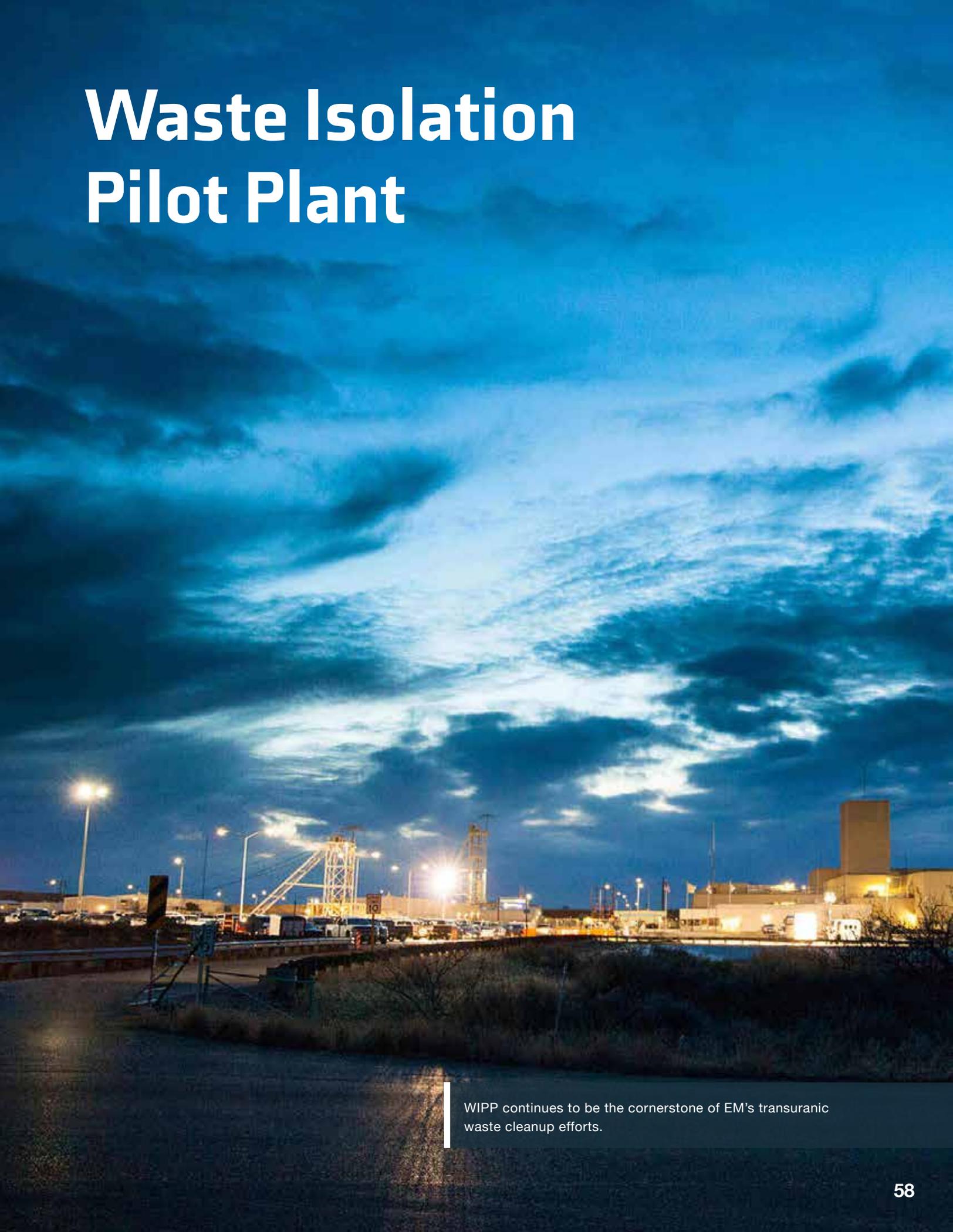


# Waste Isolation Pilot Plant



WIPP continues to be the cornerstone of EM's transuranic waste cleanup efforts.

# Waste Isolation Pilot Plant

## Overview

WIPP is the nation's only repository for the disposal of TRU waste generated as a result of atomic energy defense activities. WIPP is located 33 miles southeast of Carlsbad, New Mexico, in the Chihuahuan Desert, far from major population centers. The waste disposal rooms are located nearly one-half mile below the surface (2,150 feet) in a deep geologic salt bed formed 250 million years ago. Construction of WIPP started in the early 1980s. The facility began operation in 1999 and celebrated 20 years of operations in 2019.

The WIPP Land Withdrawal Act (LWA), Pub. L. 102-579 as amended by Pub. L. 104-201, limits the amount of TRU waste that can be disposed of in the repository to 6.2 million cubic feet. Approximately 69,000 cubic meters (m<sup>3</sup>) of TRU waste, or about 39% of the LWA TRU volume limit has been emplaced in the underground repository to date. WIPP is currently anticipated to operate beyond 2050.

### **Cleanup accomplishments include:**

- **Removed TRU waste from 22 of 30 sites.**
- **Conducted more than 13,500 shipments safely to date.**

## Cleanup Highlights 2020-2030

Much of the work to be performed at WIPP over the next decade will focus on necessary infrastructure improvements to ensure the facility can continue to play its important role in the EM complex for the long-term.

### **SITE INFRASTRUCTURE IMPROVEMENTS**

By the end of 2023, a set of key infrastructure projects will be completed, improving WIPP capabilities in mining and waste emplacement. These include the new Safety Significant Confinement Ventilation System (SSCVS), which will provide 540,000 cubic feet per minute of HEPA-filtered ventilation to the underground, allowing concurrent mining, waste emplacement, and ground control operations throughout the life of the facility. In addition, the new Utility Shaft will provide a new air intake shaft to support the SSCVS and facilitate mining additional panels. The new Utility Shaft will also provide a shaft to house a new, larger capacity hoisting capability to transport salt and materials from the repository to the surface.

Additional site infrastructure improvements to be completed over the next decade include:

- **Recapitalization of key safety systems.**
- **Replacement/refurbishment of shaft and hoist systems.**
- **Upgrades to monitoring and site network systems.**
- **Electrical substation replacements.**
- **Additional backup generators.**

## **WASTE EMPLACEMENT**

EM expects to complete mining activities in Panel 8 by early 2022.

It is anticipated that over the next 10 years approximately 25,000 cubic meters of TRU waste might be emplaced at WIPP.



Construction of a new, permanent ventilation system is one of several capital improvement projects that are ongoing at WIPP.



Usage of the TRUPACT-III packaging resumed in 2019, allowing EM facilities like the Savannah River Site to safely transport large-sized defense transuranic waste in a single shipping cask.



Work continued in late 2019 on a bypass road that will allow non-WIPP traffic to be re-routed around the transuranic waste repository, making it safer for employees traveling to the facility.

### **Remaining Scope Post-2030**

WIPP will continue mining and waste emplacement operations to dispose of a total of 6.2 million cubic feet of TRU waste generated as a result of atomic energy defense activities.