



## U.S. DEPARTMENT OF ENERGY WASTE ISOLATION PILOT PLANT

# TRANSPORTATION

**WIPP drivers must pass stringent safety and emergency response examinations and maintain good driving records.**



TRUPACT-II

Three shipping casks, the TRUPACT-II, HalfPACT and TRUPACT-III, are designed for hauling contact-handled (CH) TRU waste, while the RH72-B is used to transport remote-handled (RH) TRU waste. All four casks meet Nuclear Regulatory Commission and U.S. Department of Transportation radiation limits for public safety.



HalfPACT

**The U.S. Department of Energy employs a professional trucking firm that offers an excellent safety record and years of experience in transporting hazardous materials.**

Drivers work in pairs to assure that the truck and payload are attended at all times and that drivers are rested when it is their turn to drive.

The waste is transported in four shipping casks approved for use by the U.S. Nuclear Regulatory Commission (NRC).

Three shipping casks, the TRUPACT-II, HalfPACT and TRUPACT-III, are designed for hauling contact-handled (CH) TRU waste, while the RH72-B is used to transport remote-handled (RH) TRU waste. All four casks meet NRC and U.S. Department of Transportation radiation limits for public safety.

### TRUPACT-II

Each stainless steel TRUPACT-II is approximately eight feet in diameter, 10 feet high, and constructed with leak-tight inner and outer containment vessels. The TRUPACT-II can hold up to 14 fifty-five gallon waste drums, 8 eighty-

### DID YOU KNOW...

**IN ORDER TO MEET DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS, A FULLY LOADED TRUCK CANNOT WEIGH MORE THAN 80,000 POUNDS. THIS INCLUDES THE WEIGHT OF THE TRACTOR AND TRAILER.**

five gallon drums, six one hundred gallon drums, two standard waste boxes or one 10-drum overpack.

The TRUPACT-II underwent extensive testing at Sandia National Laboratories in Albuquerque, New Mexico. A single WIPP shipment can consist of a maximum of three TRUPACT-II's, or a combination of TRUPACT-II's and HalfPACT's.

### HalfPACT

Some shipments will consist of CH TRU waste drums that weigh as much as 1,000 pounds each. The total weight of the shipment (including

## Shipping Routes

U.S. Department of Transportation regulations require radioactive materials to be shipped on the interstate highway system unless states designate other routes. WIPP shipment protocols were developed through cooperative efforts with the states, tribal governments and the U.S. Department of Energy.

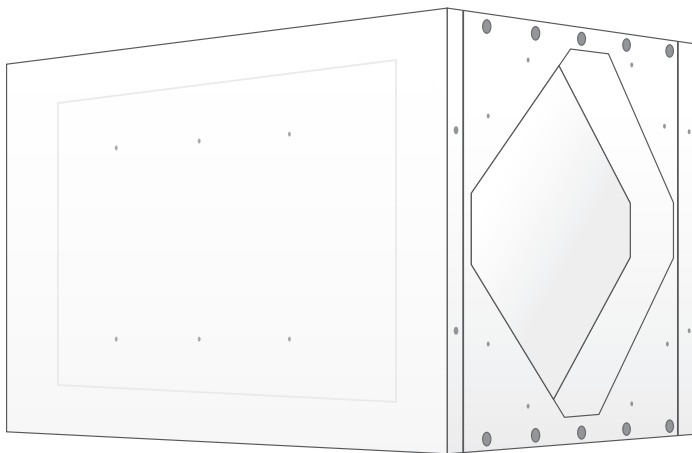


the truck and trailer) can weigh no more than 80,000 pounds under U.S. Department of Transportation requirements.

To meet these requirements, DOE designed the HalfPACT, a cask for contact-handled waste that is shorter, and therefore lighter, than the TRUPACT-II. Each HalfPACT can carry up to seven fifty-five gallon drums, four eighty-five gallon drums, or three one hundred gallon drums.

## DID YOU KNOW...

**SOME SHIPMENTS WILL CONSIST OF CH TRU WASTE DRUMS THAT WEIGH AS MUCH AS 1,000 POUNDS EACH**



**TRUPACT-III**

A single WIPP shipment can consist of a maximum of three HalfPACT's or a combination of HalfPACT's and TRUPACT-II's. The HalfPACT is expected to eliminate about 2,000 shipments of TRU waste over the 35-year operating life of WIPP.

### TRUPACT-III

Large CH TRU waste containers known as Standard Large Box 2's (SLB2's) are too big to fit inside either the TRUPACT-II or HalfPACT. In an effort to accommodate these

SLB2's, DOE designed a third CH TRU waste shipping cask.

TRUPACT-III is a large rectangular cask used to transport the SLB2. The cask is comprised of inner and outer stainless steel plates and

polyurethane foam to protect against potential punctures and fire danger.

One TRUPACT-III is transported on a custom designed trailer. The maximum allowable weight of a TRUPACT-III cask can be up to 55,116 pounds making a fully loaded TRUPACT-III shipment 84,096 pounds.

A TRUPACT-III shipment is a non-divisible load, meaning parts of the shipment cannot be removed to lessen the weight. Therefore, overweight shipping permits can be obtained for shipments to WIPP.

### Vehicles

WIPP uses conventional diesel tractors and specially designed trailers. The trailers can carry a total of three TRUPACT-II's or HalfPACTs, one TRUPACT-III or one RH-72B per shipment.



Features in the tractor cab include:

- A computer keyboard linking the vehicle with a satellite tracking system
- Continuous tracking by a central control room at the WIPP site
- Redundant two-way communication systems

Each shipment is inspected to the Commercial Vehicle Safety Alliance Level VI standards, the industry's highest level, prior to departing a TRU waste generator site.

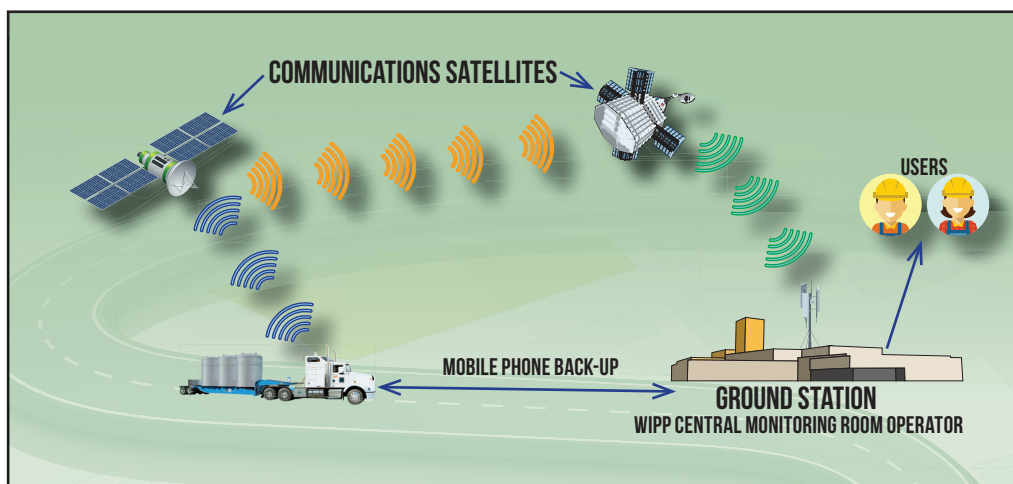
WIPP drivers are required to stop and check their trucks and payload every 150 miles or three hours en route. The trucks are also subject to inspection at state ports of entry.

Other transportation safeguards include:

- Designated safe parking areas along all routes for use in inclement weather or off-normal conditions
- The ability to replace or repair tractors en route within eight hours



## Satellite Monitoring System



## FOR MORE INFORMATION

WIPP INFORMATION CENTER  
 U.S. DEPARTMENT OF ENERGY  
 CARLSBAD FIELD OFFICE  
 P.O. BOX 2078, CARLSBAD, NM 88221  
 1-800-336-WIPP (9477)  
 INFOCNTR@WIPP.WS  
 WWW.WIPP.ENERGY.GOV  
 FACEBOOK.COM/WIPPNEWS  
 @WIPPNEWS