

The U.S. Department of Energy's Waste Isolation Pilot Plant mission is to demonstrate the safe disposal of transuranic (TRU) waste. This waste originates from numerous Department of Defense facilities. The Department of Energy employs two major contractors to carry out WIPP projects:

Westinghouse Electric Corporation

Sandia National Laboratories

Badge Requirements

You must wear your security badge at all times while on the WIPP site. The badge will be worn per the instructions in the video that you have seen. This course allows contracted employees unescorted access to the WIPP site during normal working hours. (Monday through Friday 7:15 a.m. to 4:45 p.m.) It also allows new facility employees unescorted access during normal working hours up to 30 days (New facility employees must complete GET-101 within 30 days). The badge will be picked up each morning at the Security office. It is to be returned to Security at the end of the day. If, access is required outside of normal working hours the employee will require an escort.

Safety

Safety is our first priority at the WIPP site. You must ensure that you follow posted requirements and wear the proper protective equipment. One specific area that needs explanation is a "Hard Hat Area". The equipment required to enter a Hard Hat area is:

Hard Hat
Safety shoes (Steel toed shoes)
Safety glasses

Remember, that the equipment you wear is protective. It does not make you invulnerable. You need to be conscious of the hazards in the area you are working.

WIPP Site operations are regulated by the Mine Safety and Health Act, the Occupational Safety and Health Act, the Resource Conservation and Recovery Act and other federal, state and local regulations. Personnel working on the site must operate within the scope of these regulations as appropriate for this federal facility. Technical assistance to ensure compliance is provided by the Environment, Safety and Health Department.

These issues may include worker safety, access to the underground, and operations with hazardous chemicals or hazardous waste by-products. Operations requiring the use of hazardous chemicals require that a Material Safety Data Sheet be provided to the Environmental Analysis and Compliance Department prior to the start of actual operations.

Locations

The map in this pamphlet shows the locations of offices and structures throughout the site. Some specific areas of concern are:

The area around the Salt Handling Shaft and the Air Intake Shaft. These areas are designated as Hard Hat Areas.

The area underneath the exhaust ducting around the Exhaust Filter Building is designated as a Hard Hat Area.

The Hazardous Material Storage Area in the southwest corner of the site.

The area directly to the east of the Maintenance Building which requires safety glasses for entry.

There are several areas around the site where Radioactive material may be or is stored. The Waste Handling Building, the fenced in area to the South of the Waste Handling Building and counting labs in the Safety, Support and Waste Handling buildings.

The Site substation is a limited access area to prevent personal injury.

Controlled Documents

Controlled documents prescribe activities affecting quality or safety of operations at WIPP. They have been assigned a controlled document number. They provide for WIPP compliance to federal, state or local laws and contain site-specific instructions.



Controlled documents are stored in:

The Support Building

Safety Building

Quality Assurance, Technical Training, Maintenance and Technical services Trailers

Westinghouse Operations and Information Center in Carlsbad

WIPP underground

Radiation and Hazardous Material Safety

Questions most often asked by visitors deal with radiation. Radiation is a normal part of nature; it is with us no matter where we go or what we do. Natural radiation is emitted by earth, water, food, buildings, air, the sun, stars and our own bodies. Radiation also comes from human-generated sources such as color TV sets, medical procedures, electrical generation, and nuclear weapon production. Radiation and other hazardous materials here at WIPP are closely monitored and controlled. All areas where you could be exposed to radiation are marked with yellow and magenta caution signs and have physical barriers. Chemical packages and containers are clearly labeled to indicate the contents and the associated hazards. Do not enter a radiation or hazardous material area or work with any hazardous materials without specific authorization and training.



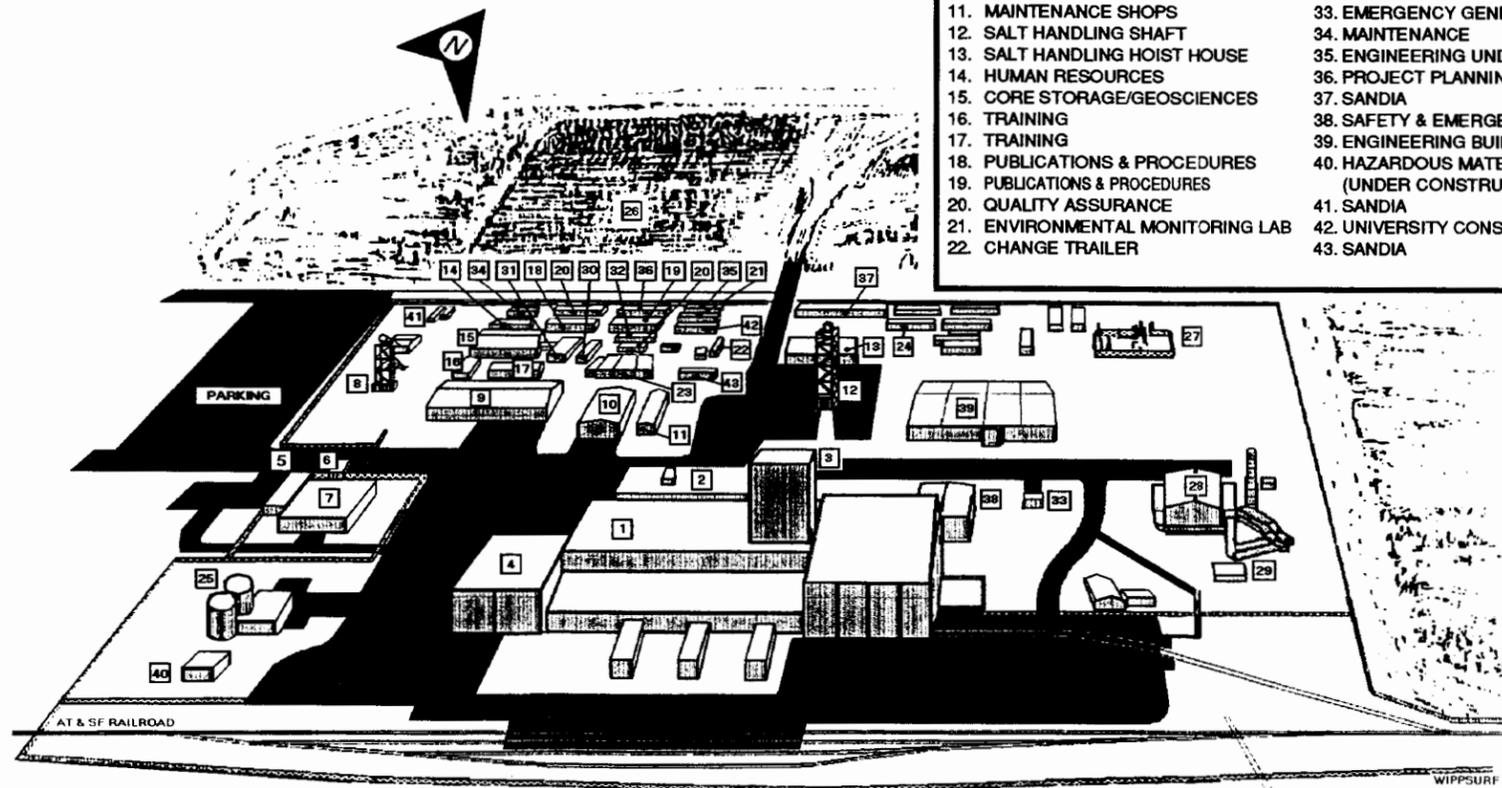
If, you have any questions about the video you have seen or the information in this pamphlet. You may direct your questions to the instructor presenting this course.

WELCOME TO THE WASTE ISOLATION PILOT PLANT

LEGEND

- | | |
|----------------------------------|--|
| 1. WASTE HANDLING BUILDING | 23. MAINTENANCE/EXPERIMENTAL PROGRAMS |
| 2. SUPPORT BUILDING | 24. SANDIA |
| 3. WASTE HANDLING SHAFT | 25. WATER STORAGE TANKS AND PUMPS |
| 4. TRUPACT MAINTENANCE FACILITY | 26. SALT PILE |
| 5. VEHICLE TRAP | 27. MAIN SUBSTATION |
| 6. GATEHOUSE | 28. EXHAUST FILTER BUILDING |
| 7. GUARD AND SECURITY BUILDING | 29. EXHAUST AIR SHAFT |
| 8. AIR INTAKE SHAFT | 30. AS-BUILTS |
| 9. WAREHOUSE | 31. SANDIA |
| 10. AUXILIARY WAREHOUSE | 32. ENVIRONMENTAL EVALUATION GROUP |
| 11. MAINTENANCE SHOPS | 33. EMERGENCY GENERATORS |
| 12. SALT HANDLING SHAFT | 34. MAINTENANCE |
| 13. SALT HANDLING HOIST HOUSE | 35. ENGINEERING UNDERGROUND OPERATIONS |
| 14. HUMAN RESOURCES | 36. PROJECT PLANNING AND CONTROL |
| 15. CORE STORAGE/GEOSCIENCES | 37. SANDIA |
| 16. TRAINING | 38. SAFETY & EMERGENCY SERVICES BLDG.-EOC |
| 17. TRAINING | 39. ENGINEERING BUILDING |
| 18. PUBLICATIONS & PROCEDURES | 40. HAZARDOUS MATERIAL STORAGE BUILDING (UNDER CONSTRUCTION) |
| 19. PUBLICATIONS & PROCEDURES | 41. SANDIA |
| 20. QUALITY ASSURANCE | 42. UNIVERSITY CONSORTIUM |
| 21. ENVIRONMENTAL MONITORING LAB | 43. SANDIA |
| 22. CHANGE TRAILER | |

WIPP SURFACE



CORE GENERAL EMPLOYEE
TRAINING COURSE

GET-200

REV.-1

11/25/91

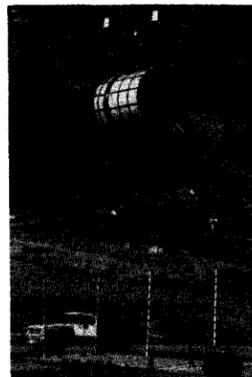
1 TRUPACT-II Containers are Proven Strong and Safe

They have to be. U.S. Nuclear Regulatory Commission (NRC) safety requirements for radioactive waste shipping containers are extremely rigid. The TRUPACT-II meets them all.

The strength and safety of the TRUPACT-II containers was demonstrated through an extensive testing program required for NRC certification. In those tests, TRUPACT-II containers were subjected to a brutal series of conditions to see if they would maintain their leak-tight integrity during a highly improbable—but nonetheless possible—highway accident scenario. The TRUPACT-II tests involved the following elements:

- First, the 19,000-pound loaded TRUPACT-IIs were dropped from a height of 30 feet (three stories) onto a hard, unyielding surface constructed of 25-foot-thick concrete that was covered with an eight-inch steel plate. This unyielding test surface was used to create a very severe accident situation by causing all of the impact to be absorbed by the TRUPACT-II. Each test TRUPACT-II container was oriented so that its most vulnerable areas would receive the greatest impact. **The TRUPACT-II containers did not leak.**
- Next, the same TRUPACT-II containers had to survive puncture tests to further prove their engineered integrity. They were repeatedly dropped from a height of about three feet onto a six-inch diameter steel punch. In some of the drops the punch penetrated through the outer skin of the stainless steel TRUPACT-II container and into the 10-inch polyurethane foam layer. However, it did not penetrate either of the two containment vessels inside the TRUPACT-II container that protect the cargo. **The TRUPACT-II containers did not leak.**
- Finally, it had to be demonstrated that the TRUPACT-II could survive a highway accident fire. Each battered TRUPACT-II container was placed over an 8,000-gallon pool of jet fuel and set ablaze. The TRUPACT-II containers were engulfed in a 1,475 degree Fahrenheit inferno for a minimum of one-half hour. **And, again, the TRUPACT-II containers did not leak.**

Altogether, three different TRUPACT-IIs were tested over a wide range of temperatures and orientations. These tests conclusively proved that the TRUPACT-II containers are indeed built to provide extra margins of safety under extraordinary accident conditions. Nonetheless, the ultimate safety of TRUPACT-II transportation system rests with those who will move the TRUPACTs to the WIPP.



TRUPACT II containers were subjected to brutal tests to meet U.S. Nuclear Regulatory Commission requirements and to assure they will maintain leak-tight integrity during any highway accident.

2 Highly Trained and Skilled WIPP Drivers

Each driver will be required to attend the same emergency response course that will be offered to firemen, law enforcement personnel and ambulance crews along the transportation routes. Each driver must be recertified each year and will be subject to severe penalties for safety violations. All tractors are equipped with speed governors, and any WIPP driver charged with a moving violation or accident will be fired. Deviating more than once from the designated transportation route is also cause for termination. So is failure to maintain adequate records or failure to maintain constant surveillance of the WIPP cargo.

WIPP drivers will be seasoned veterans who have gone through stringent screening including drug and alcohol testing. WIPP driver qualifications exceed not only those recommended by the U.S. Department of Transportation but also the DOE's own exacting requirements.

WIPP drivers must meet these minimum qualifications:

- The driver must be at least 25 years old, a U.S. citizen and must submit to substance abuse tests, a driver profile examination and a tough road test.
- A minimum of 100,000 miles of tractor-trailer driving experience is required. The driver must have garnered two years of uninterrupted experience as a tractor-trailer driver within the past five years.
- WIPP drivers must have a clean driving record. No driver who has received a traffic violation or who is found to be at fault in an accident within the past three years will be qualified to move WIPP waste.

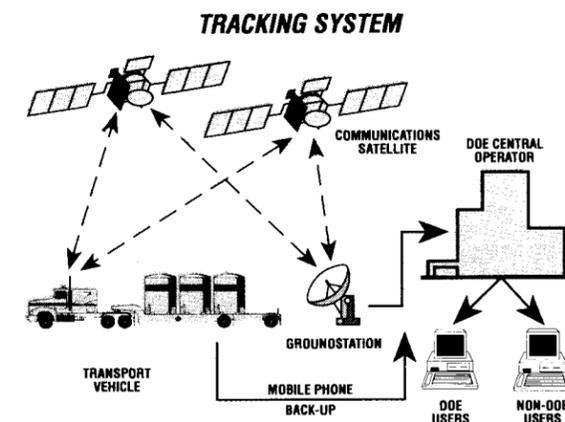
Drivers meeting these minimum requirements will attend the DOE's Transportation Safeguards Academy, where they will be trained annually by driving an actual WIPP tractor-trailer fully loaded with a nonradioactive WIPP payload. Each driver must demonstrate skillful handling of the vehicle over varied terrain driving daylight and nighttime hours. The training is specially tailored to cover traditional safety considerations as well as unusual events, including sabotage.

All WIPP tractors will carry properly-calibrated radiation detection instruments. As part of their training, drivers become skilled in the use of radiation detection instruments.

In summary, WIPP drivers will be proven safe drivers. They will be trained to tackle all shipment contingencies with an uncompromising approach to public safety. They will be among the safest, most highly trained drivers on America's highways.

3 WIPP Shipments Will Be Continuously Monitored for Added Safety

A state-of-the-art, computer-linked and satellite-based tracking system, called TRANSCOM, will monitor the movement of each and every WIPP shipment. The highly integrated system will provide streamlined communications to a Central Monitoring Room at WIPP. Involved states and Indian tribes also will receive the



TRANSCOM system software and will be able to follow TRUPACT-II shipments on the way to WIPP.

At any given time, TRANSCOM will provide digital communication and the location of each WIPP vehicle anywhere along the transportation route. TRANSCOM will let key decision makers know when a shipment is approaching the jurisdiction of a neighboring state.

Communication between the WIPP Central Monitoring Room and WIPP drivers will provide a constant source of information about changing weather conditions or any abnormal event that might occur. Safe packing areas have been designated for inclement weather. Tractors are also equipped with a mobile telephone for back-up communications.

4 Emergency Responders Will Be Trained and Ready

Before the first WIPP shipment moves, thousands of emergency responders along the WIPP routes will be trained and ready to respond quickly and safely to any contingency involving hazardous waste, not just WIPP-related shipments. So will medical personnel in selected hospitals along the routes. Already, nearly 5,900 emergency responders have been trained. More than 85 percent of them rated their training as "excellent." They are ready. Regular refresher training will keep them ready.

It All Adds Up

Sound, leak-tight TRUPACT-II shipping containers. A cadre of superbly trained drivers with top safety records. A sophisticated tracking system to watch each and every move of each and every WIPP shipment. Thousands of emergency responders, trained and ready to act in case of a WIPP transportation accident. All of this adds up to four excellent reasons why the WIPP transportation system is safe.



At WIPP, transuranic waste will be stored 2,150 feet underground in salt beds that have remained stable and free of groundwater for 225 million years. Scientists have long advocated and investigated the safe disposal of such waste in deep geologic formations.

4

EXCELLENT REASONS

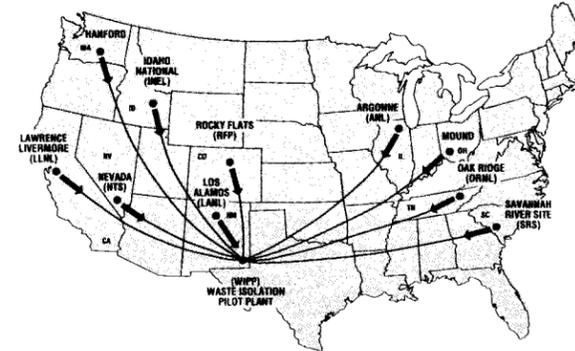
WHY THE WIPP TRANSPORTATION SYSTEM IS SAFE

When the United States Department of Energy's (DOE) Waste Isolation Pilot Plant (WIPP) begins the experimental phase specially-designed shipping containers will begin bringing transuranic (TRU) nuclear waste to the WIPP site near Carlsbad, New Mexico. TRU waste—consisting of rags, discarded clothing, and tools that have become contaminated with radioactive elements like plutonium-239 will be shipped to WIPP in Transuranic Package Transporters, or TRUPACT-IIs.

The long half-lives of the wastes to be shipped require safe transportation, handling and disposal. At WIPP, TRU waste will be stored 2,150 feet beneath the earth's surface in the middle of a bedded-salt rock formation *that has remained stable and free of groundwater for 225 million years*. Scientists have investigated and advocated the safe disposal of radioactive waste in bedded-salt formations for many years.

Transportation issues associated with shipping TRU waste to WIPP are of understandable concern to the public along transportation routes to WIPP. TRU waste shipments will move from 10 DOE sites located throughout the United States and the transportation routes will cover more than 7,000 miles of highway in 23 states. TRU waste shipments to the WIPP must be carefully monitored and safely conducted at all times. To assure this, the prestigious National Academy of Sciences (NAS) reviewed the WIPP transportation plan.

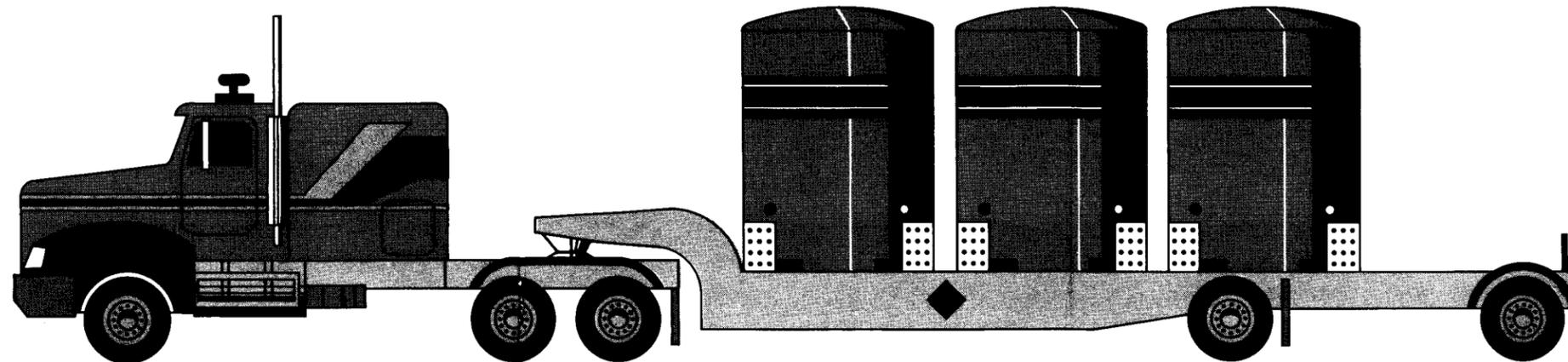
TRU DEFENSE WASTE GENERATING AND STORAGE SITES



The transportation plan was developed in full compliance with Department of Transportation (DOT) regulation 49 CFR 177.825, which allows individual states to designate primary and alternate in-state transportation routes for WIPP shipments. In June 1989, the NAS released its findings on the plan. It concluded:

“The system proposed for transportation of TRU waste to WIPP is safer than that employed for any other hazardous material in the United States today and will reduce risk to very low levels.”

There are many reasons behind the safety of the WIPP transportation system. These can be grouped in four broad categories.



For More Information, Please Contact:



WIPP Public Information
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