

TRU TeamWorks

[About Us](#)

[Acronym List](#)

[Archives](#)

[Feedback](#)

[Links](#)

[WIPP Home Page](#)

July 28, 2005



Law & Order at WIPP

Firearms to be standard issue ...



Shipment Numbers

Shipments
scheduled to arrive
07/31/05 - 08/06/05

21

Hanford - 4
INL - 14
LANL - 2
SRS - 1

(subject to change)

3,783
total shipments
received as of
07/26/05



Clean air

HEPA, the ultimate air cleaner



Drum roll, please!

Brookhaven photo gallery ...



Disposal Numbers

Waste disposed as of
07/26/05 :

501
100-gallon drums

4,471
standard waste boxes

1,875
ten-drum overpacks

62,565
waste drums

30,172 cubic meters



Herndon on safety

Protect your hands and fingers ...



Go configure

Why we dispose the way we do ...



Our Team

People news from WIPP ...

[Home](#)

[The Big Story](#)

[Operations](#)

[Progress](#)

[Safety](#)

[Working Smart](#)

[Our Team](#)



TRU TeamWorks is a biweekly e-newsletter for the Waste Isolation Pilot Plant team

TRU TeamWorks

[About Us](#)[Acronym List](#)[Archives](#)[Feedback](#)[WIPP Home Page](#)[Links](#)

The Big Story

Officers will now be required to:

Run a half-mile in 4 minutes and 40 seconds or less.

Run 40 yards in 8.5 seconds, starting from a prone position.

WIPP Security to re-arm

Along with new responsibilities, WIPP security officers with Santa Fe Protective Services (SFPS) Inc. will soon add guns to their security belts. Many employees remember the early days at WIPP when security officers were armed. In keeping with DOE's openness policy, former Secretary of Energy Hazel O' Leary directed the disarming of security officers at WIPP and a few other facilities in 1993.



Santa Fe Protective Services employee Roy Wunderlich attending to security details.

But times have changed. "Following analysis of WIPP's security plan by DOE-

HQ and local security personnel, a determination was made that WIPP should once again be armed. The decision to disarm was made before WIPP had received a shipment of waste,” according to Scott Cassingham, manager, WTS Security Services.

While the plan is to re-arm the entire force, it will be accomplished in stages. Supervisors, who are responsible for team members, will be the first armed. Officers must be able to pass an annual medical exam, as well as physical tests. They must run a half-mile in 4 minutes and 40 seconds or less, and run 40 yards in 8.5 seconds, starting from a prone position. Finally, they must demonstrate weapon safety, proficiency and marksmanship twice yearly to continue to carry a sidearm.

Five SFPS supervisors are now taking basic security police officer training in Albuquerque. The nine-week course covers a variety of topics, including communication, use of force, use of a firearm, and arrest techniques.

“With this comes added responsibilities. We are currently developing plans and procedures to address the changes,” states Larry Barela, SFPS Security manager. “Our officers will now have limited arrest authority on WIPP property.” According to Barela, arrests may be made only for violation of laws specifically listed in the Atomic Energy Act. Other offenses will continue to be handled by members of local law enforcement.

“We will continue to work closely with local and state law enforcement,” Cassingham adds.

[Home](#)

[The Big Story](#)

[Operations](#)

[Progress](#)

[Safety](#)

[Working Smart](#)

[Our Team](#)

[Top of page](#)

TRU TeamWorks

[Acronym List](#)
[About Us](#)
[Archives](#)
[Feedback](#)
[Links](#)
[WIPP Home Page](#)

Operations

This month in WIPP history

1998

New Mexico Attorney General Tom Udall and three environmental groups file lawsuits against EPA for certifying WIPP

1999

Panel 2 mining begins

2000

First shipment from Hanford arrives at WIPP

2002

NRC issues revised Certification of Compliance for TRUPACT-II, allowing 2,000 drums of high-wattage TRU waste to be shipped from LANL

HEPA, the ultimate air cleaner

In the unlikely event of airborne contamination at WIPP, high efficiency particulate air (HEPA) filters are a safeguard against release to the atmosphere. Today's HEPA filters evolved from German gas masks captured during World War II and sent to the United States for examination. The masks' canisters contained filters made from esparto grass pulp dispersed with asbestos. The masks resisted plugging from oil-based smoke, trapped dust and particulate matter and were resistant to air flow.



The HEPA filters are housed in the building to the right. Filtered air is exhausted through the ductwork on the left.

In the years following the war, the army greatly improved the masks to protect American troops from chemical, biological and radiological hazards. Later, the U.S. Army Chemical Corps developed a mechanical blower and air purifier to protect personnel in operational headquarters where wearing masks was impractical. In time, the army became the Atomic Energy Agency's sole supplier for these "collective

protector filter units" for confining airborne radioactive particles in the exhaust ventilation systems of nuclear facilities.

WIPP's surface facilities (Waste Handling Building and Exhaust Filter Building) are serviced by eight banks of 162 nuclear-grade HEPA filters – half are used for backup purposes. The underground ventilation system has two banks of 84 filters, and one HEPA filter serves the CMR.

According to Bill Wood, WTS cognizant engineer for much of the surface ventilation equipment, the HEPA filters are designed to trap 99.97 percent of all airborne particles as small as 0.3 microns in size – extremely efficient when one considers a human hair is approximately 25.4 microns in size and smoke .17 to 1.3 microns. Wood notes that the use of diesel equipment in the Waste Handling Building is minimized because emissions plug the HEPA filters.

"Differential pressure across the filters is monitored 24-hours a day," says Wood. If the differential pressure exceeds three inches, the filters are replaced. The filters are also tested annually for leakage by NuCon, a company that inspects nuclear-grade filters. Aerosolized polyalphaolephin (PAO) is injected into one side of the filter bank, while detection equipment on the opposite side measures PAO dispersion. The filters must capture at least 99.97 percent of the 0.3 micron-sized PAO particles to meet standards.

Wood is in the process of ordering a number of replacement filters to meet a recently issued DOE recommendation that limits the shelf-life of HEPA filters to 10 years. The tensile strength of the dry filters diminishes over time. HEPA filters used at DOE facilities must first be tested at a DOE-certified filter test facility. The replacement filters will be tested at a new filter test facility in Baltimore , once the facility passes required audits.

Home	The Big Story	Operations	Progress	Safety	Working Smart	Our Team
----------------------	-------------------------------	----------------------------	--------------------------	------------------------	-------------------------------	--------------------------

[Top of page](#)

TRU TeamWorks

About Us

Acronym List

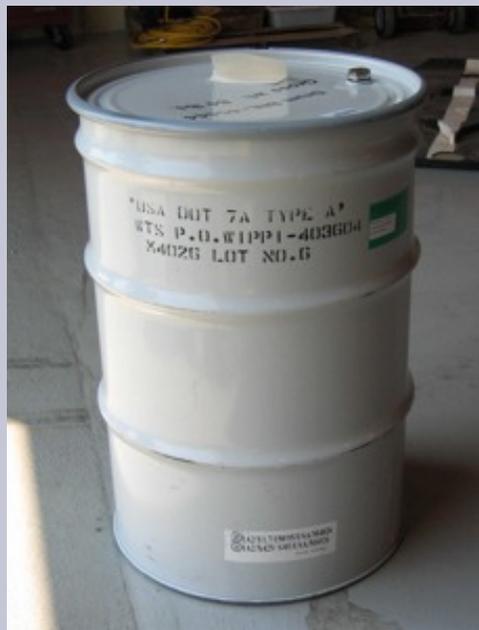
Archives

Feedback

Links

WIPP Home Page

Progress



The single drum of TRU waste from Brookhaven National Laboratory.

Brookhaven shipment completed

In the last issue of TRU TeamWorks, we reported that a shipment from Brookhaven National Laboratory in New York was en route to the Idaho National Laboratory. photographs taken as the single drum shipment was readied are provided below.



Pre-job safety briefing



Adding dunnage (drums not containing TRU waste)



Wrapping the payload



Lid coming off the HalfPACT



Pre-departure inspection

[Home](#)

[The Big Story](#)

[Operations](#)

[Progress](#)

[Safety](#)

[Working Smart](#)

[Our Team](#)

[Top of page](#)

TRU TeamWorks

[About Us](#)
[Acronym List](#)
[Archives](#)
[Feedback](#)
[Links](#)
[WIPP Home Page](#)

Safety

Hand and finger safety

Which tool is most used at the WIPP site and the Skeen-Whitlock Building?

a. Screwdriver



b. Needle-nosed pliers



How would you answer the following question, "What is the most used tool at the WIPP site, the Skeen-Whitlock Building and all other WIPP support locations?" Some might say a common hand tool like a hammer, a screw driver or a wrench. Others might answer that the most used tool was a computer, a mouse, or a telephone. Actually the correct answer is simple. It is a simple tool that everyone uses. The most used tool on any job is the human hand.

Think of almost any task you or a co-worker performs during the day, from picking up a piece of trash to operating the computer to securing a load of material on a transporter. Your hands and fingers are the tools you use every day. Try writing without your thumb. Try holding a golf club with only two fingers. Try using a computer mouse without your fingers. It is almost impossible to perform many of the tasks we perform daily without the use of your hands and fingers.

Hand protection is important because our hands are exposed to so many hazards in the workplace. However, there are many types of protection for our hands when they are exposed to these hazards.

The first line of defense against hand injuries are engineering controls designed into equipment during the manufacture, which alter or remove the hazard. Do not allow any alteration or removal of machine guards on any equipment that protects your hands and fingers from moving parts. Design your work area to incorporate proper positioning for tools, hands and work objects.

The second line of defense against injury is the use of personal protective equipment. There are gloves to protect from skin absorption of harmful substances, and a different type of gloves to protect your hands from cuts and lacerations, abrasions, punctures, chemical burns or temperature extremes. It is important to recognize that no one glove will protect you from all hazards. You must select the glove that will protect you from the specific hazard.

c. Hammer



d. None of the above

ANSWER: d. None of the above.
See article at right.

You only have two hands. They are used in almost every task you perform, both here at work and at home in our leisure activities. Before you start a task, STOP and TAKE TWO minutes to identify the hazards your hands may be exposed to. Then use the appropriate protection to protect your hands and yourself from those hazards.



Guest writer:
Craig Herndon, Manager, WTS Safety & Health

[Home](#)

[The Big Story](#)

[Operations](#)

[Progress](#)

[Safety](#)

[Working Smart](#)

[Our Team](#)

[Top of page](#)

TRU TeamWorks

[About Us](#)
[Acronym List](#)
[Archives](#)
[Feedback](#)
[Links](#)
[WIPP Home Page](#)

Working Smart

55-gallon drum



85-gallon drum



100-gallon drum



Go [con](#)figure!

For a project that took decades to plan and engineer, it's not surprising that disposed waste containers follow a configuration plan too. One might think it really doesn't matter how the containers are arranged at the end of the waste life-cycle, but there is a method.

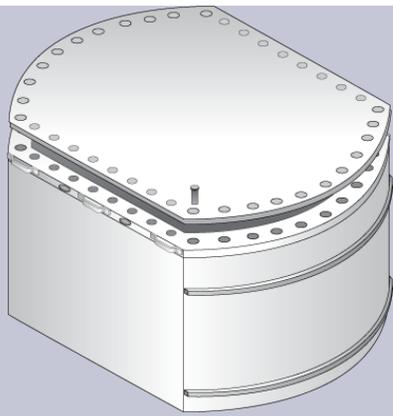
WIPP TRU wastes come in a variety of Type A containers. Historically, 55-gallon drums and rectangular standard waste boxes (SWB) have been the most-used. But since 2003, WIPP has received nearly 1,800 ten-drum overpacks (TDOPs) and a number of 100-gallon drums. These containers are used for large waste items that won't fit into a 55-gallon drum.

The TDOP can hold ten 55-gallon drums (overpacked) or waste may be directly loaded into the container. One-hundred-gallon drums may contain compacted 55-gallon drums or direct-loaded waste, which begs the question: How are these multi-sized drums configured to maximize space in WIPP underground disposal units?

Maximizing space actually begins with row spacing, not container stacking. According to Waste Handling engineer, Mark Dziamski, honeycombing, or staggering, the rows make best use of disposal space.

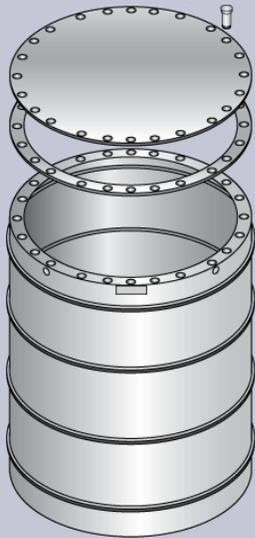
Is the staggered row placement an engineering feat? "No," says Dziamski. "Specifications for the configuration of disposed waste containers are spelled out in the hazardous waste facility permit, and we follow those requirements exactly."

According to Dziamski, there are also prescribed methods for how containers are stacked. Seven-packs (seven 55-gallon drums configured in a circle and shrink-wrapped) and standard waste boxes



Standard waste box

Ten-drum overpack



are stacked three-levels high and topped with a single super-sack of magnesium oxide as an engineered barrier.

TDOPs are so tall that each counts as two levels. They are always placed on the disposal room floor and can be stacked with one layer of SWBs or 55-gallon drums before being topped off with a super-sack. For every TDOP downloaded into the mine, Waste Handling Operations ensures a corresponding seven-pack or SWB is downloaded to provide the top layer.

Finally, the 100-gallon drum footprint only allows for 100-gallon drums on top. These wider containers are also stacked three-levels high and topped with a super-sack.

Waste Handling Operations optimizes resources as well as space. Efficient load planning cuts the number of hoist trips necessary to transport waste into the underground. Fewer hoist trips for waste translates into greater hoist availability for other underground activities, such as mining operations, environmental and geotechnical monitoring and high-level tours.

“Our group shares the waste hoist with Operations and all WIPP personnel,” notes Dziamski. “We try to keep the number of hoist trips to a minimum while still performing our jobs. Cooperation and teamwork between organizations keep WIPP successful as a whole.”

[Home](#)

[The Big Story](#)

[Operations](#)

[Progress](#)

[Safety](#)

[Working Smart](#)

[Our Team](#)

[Top of page](#)

TRU TeamWorks

[About Us](#)
[Acronym List](#)
[Archives](#)
[Feedback](#)
[Links](#)
[WIPP Home Page](#)

Our Team



Birthdays

Colleen Navarrete (L&M) July 29

Liz Gordon (CTAC) July 30

Yolanda Navarrete (WTS) July 30

Dr. Chuan-Fu Wu Receives Prestigious Health Physics Society Award

The Health Physics Society awarded Dr. Chuan-Fu Wu the Health Physics Society (HPS) Fellow Award July 12, during the society's annual meeting. This award is given to senior members of the society in recognition of their significant administrative, educational and scientific contributions to the profession of health physics. The HPS is a professional organization of over 5,000 members whose mission is excellence in the science and practice of radiation safety.



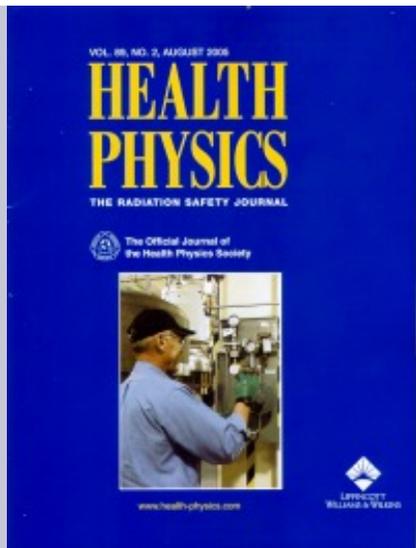
Wu has worked at WIPP for 16 years. He was recruited by Westinghouse in 1989 to establish and manage WIPP laboratories and several technical programs. In 2000, Wu joined CBFO as senior technical advisor to lead overall integration of WIPP technical programs and resources to ensure operational safety, efficiency and cost-effectiveness. He serves as a senior technical safety manager and a federal project director for all WIPP projects.

Wu, a certified health physicist and a certified project management professional, currently serves on the U.S. Technical Advisory Group to the International Electrotechnical Commission Committee on Nuclear Instrumentation, the Program Advisory Committee for the Waste Management Conference, the DOE Laboratory Accreditation Program Oversight Board, and the New Mexico Governor's Radiation Technical Advisory Council. He is also the chairman of the HPS Laboratory Accreditation Assessment Committee.

Wu and his wife Bijou have resided in Carlsbad since August 1989. They have two children, Sarah, a student at the University of New Mexico, and son, Gary, a recent graduate of Carlsbad High School, who plans to attend Boston College.

A fond farewell

There is no question that it has been a genuine privilege for me to work with all of you on this project. I know that I have had a part in something exceptional. I have always felt quite fortunate to work with this team and to do the work allowed me



The cover article for the upcoming August edition of Health Physics Journal was written by WTS employees Robert Hayes, Adan Pena and Tom Goff.

at the site. To those who have helped calibrate me during my years here, I sincerely thank you and I hope my services have been worth your time and effort. The camaraderie, teamwork and dedication to excellence in all things are what I think I will remember most from my time at the site. I will be back next April for a week to follow through on the American Nuclear Society conference to be held here in Carlsbad but surely will see many of you again in time. Keep up your amazing efforts!

Yours truly,

Robert Hayes



WTS July service awards

5 Years

Patrick Foreman
Burton Hubbard
Pat Jasso

15 Years

Deena Cantrell
Linda Jo Dalton
Debbie Freeze
Linda Santo
Dan Standiford

20 years

Bill Allen
David Black
Steve Childress
Jerry Graham
Jeff Knox
Melody Smith

