

## WIPP Quick Facts (As of 02-13-08)

**6,424**

Shipments received since opening

**53,245**

Cubic meters of waste disposed

**97,916**

Containers disposed in the underground

## Settlement reached to resolve LANL drum Administrative Compliance Order

To focus on national cleanup efforts and to avoid the time and expense of further legal proceedings, the DOE and WTS have reached expedited settlement with the New Mexico Environment Department (NMED) related to 121 waste containers from the Los Alamos National Laboratory disposed at WIPP. At issue in NMED's November 26 Administrative Compliance Order was the characterization process used to determine the waste's radiological, chemical and physical properties.

The parties differed concerning waste characterization requirements in the WIPP Hazardous Waste Facility Permit, but they agreed that the settlement was in the best interest of the public. DOE will pay NMED \$110,000 and fund the local NMED oversight office for fiscal year 2009.

At no time has there been a risk to the public or the environment or any negative impact to repository performance as a result of disposal of these drums.

## Elected officials brave the elements to attend WIPP update



The WIPP Legislative Update is sponsored by southeast New Mexico legislators. Pictured above are Representative John Heaton, Senator Gay Kernan and Senator Carroll Leavell.

Jack Frost made his presence known at this year's WIPP Legislative Update. On the morning of the annual event, Santa Fe, New Mexico had a chilly start with temperatures that dipped into the 20s, high winds and icy roadways. While conditions kept some away, more than 35 legislators, state officials and other participants braved the elements to hear the latest news about WIPP.

The WIPP Legislative Update is sponsored by southeast New Mexico legislators. Representative John Heaton, whose state legislative district includes WIPP, served as emcee. He introduced his fellow hosts, who included Senator Carroll Leavell, Senator Vernon Asbill, Senator Gay Kernan, Representative Donald Bratton, Representative William (Bill) Gray and Representative Shirley Tyler. Other officials participating in the breakfast meeting were Lt. Governor Diane Denish, New Mexico Environment Department Secretary Ron Curry and Carlsbad Mayor Bob Forrest.



Shown above: WTS General Manager Farok Sharif, Lt. Governor Diane Denish and CBFO Manager Dave Moody.

Several legislators and other guests made brief remarks, specifically focusing on the success of WIPP and the importance of the project to southeast New Mexico and the state. But the early morning keynote address was delivered by CBFO Manager Dave Moody, who focused on changes at WIPP since the last gathering.

"We've had another successful year," said Moody.

He began by recognizing the appointment of Vernon Daub as the new CBFO deputy manager who was in Moody's words, "In Carlsbad, holding down the fort."

He also introduced the new team of Farok Sharif and Pat Yocum, WTS general manager and deputy general manager, respectively.

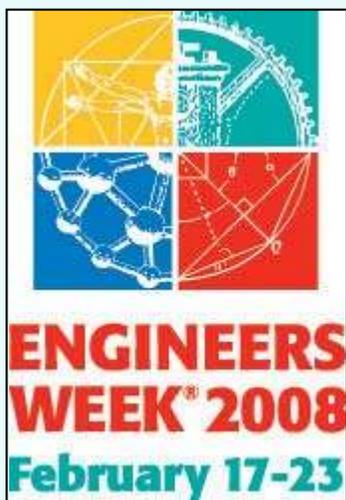
Moody then addressed some 2007 highlights in the areas of safety, mining, transportation and disposal. Among them were achieving the lowest injury rate in the history of WIPP, significant progress in the mining of Panel 5, and safely receiving 993 shipments.

Remote-handled (RH) waste operations was prominent in the success of WIPP in 2007. At the time of last year's meeting, disposal of RH-TRU waste had just begun. This year, Moody was able to report that more than 100 shipments of RH-TRU waste had safely arrived at WIPP.

Some of WIPP's challenges were also discussed, including the successful conclusion of the retrieval project and ongoing discussions with the NMED regarding enforcement actions issued in November.

Looking ahead to 2008, some of the priorities Moody discussed included continuing focus on safety and compliance and sustaining 26 average weekly shipments (21 contact-handled and five RH).

The New Mexico Legislature is in session only once each year for alternating 30 or 60-day sessions. This year's session was a 30-day session, which is scheduled to end today.



## WIPP observes National Engineers Week

Where would WIPP be without engineering? Certainly not where it is today. From the development of the world's first certified deep geologic repository to the design of the TRUPACT-II shipping containers, engineers have made this project work. February 17-23 is National Engineers Week and some of WIPP's best are marking the occasion by speaking to students about the work they do every day.

In the next week, 17 WTS engineers will visit elementary and secondary schools in Carlsbad, New Mexico in hopes of sparking interest in the engineering profession. The engineers will present students with an engineering problem and guide them to a solution.

The nation, as a whole, is in need of engineers and the demand for such skilled individuals is anticipated to grow in the future.

In honor of National Engineers Week, today's issue of TeamWorks features two articles about engineering. Many thanks to our engineers for sharing their time and talent with local students and for the work they do that contributes to WIPP's success.

### Redd receives certification



Darrell Redd, WTS Quality Assurance, recently attained certification from the American Welding Society (AWS) as a Certified Welding Supervisor.

Redd successfully completed a five-day Certified Welding Supervisor Seminar, in which participants learned the science, rather than the art, of welding for a better control of variables in the welding process. Following the seminar, he passed a four hour comprehensive examination. The examination was given in two parts: 1) Fundamentals of Supervision and; 2) Welding Practices and Economics.

The AWS, founded in 1919, serves 50,000 members worldwide and has a number of certification programs to assist industry in identifying qualified welding personnel and to provide opportunities for welding professionals to demonstrate their qualifications.

Redd also holds the AWS certification as a Certified Welding Inspector and has more than twenty years of experience in welding, performing weld inspections and writing welding procedures.

## Senator Domenici recognized for support of WIPP



CBFO Manager Dave Moody presented U.S. Senator Pete Domenici with a plaque during a recent visit to Carlsbad, N.M. The plaque, which was presented on behalf of management and employees at WIPP, recognizes Domenici for his support of WIPP and for his belief in the power of science and technology. Domenici recently announced his retirement at the end of his current term.

## Engineering — The stealth profession

Engineering has been called the "invisible profession" or the "stealth profession" because most people have no clue what engineers do. This is unfortunate, because everything in society is linked to engineering.



A 1998 poll indicated 61% of adults felt "not very well" or "not at all well" informed about engineering. So what is engineering? It's hard to get a good idea from just a few words. A really broad definition of engineering is:

"Engineering is the application of math and science to create something of value from our natural resources."

### The World that Never Was

Note that the definition above states that engineering is not science. Engineers generally don't "do" science. Science is about discovering the natural. Engineering is creating the artificial. Theodore Von Karman, an aerospace engineer, put it nicely when he said, "Scientists discover the world that exists; engineers create the world that never was."

Engineers are often incorrectly identified as scientists because most people have studied some science in school and are at least familiar with science. Most people have not studied or even been introduced to engineering. For example, in the 1998 poll, only 18% of respondents associated engineers most closely with working in space, while 68% associated scientists most closely. In fact, the space program is largely engineering and 72 of 107 current U.S. astronauts in 1998 (67%) have an engineering degree.

#### **The Most Creative**

The word "create" has been used several times here in reference to engineering. Engineers as a group are probably the most creative people. They synthesize, solve problems, and innovate...all big words meaning that they make new things and make old things better. People in the arts are creative too; but their creativity deals with thoughts or emotions. Engineering creativity is directed at things.

**Submitted by Judy Seal, WTS Engineering**  
**Source: Discover Engineering.org**

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## **George Washington - The first US engineer**

"First in war, first in peace, and first in the hearts of his countrymen," George Washington has also been described as America's first engineer. That his birthday, on February 22, is celebrated during National Engineers Week, February 21-27, is no coincidence.



A gentleman farmer of inherited wealth and limited formal education, Washington acquired credible surveying skills early in life, but excelled as a manager, strategist, and leader.

Washington directed a growing nation toward technical advancements, invention, and education. He promoted construction of roads, canals, the Capitol, docks and ports, water works, and new efforts to extract coal and ores and develop manufacturing resources.

Around the world, technology was gaining equal footing with pure science. Washington's contemporaries included James Watt (Scottish steam-engine inventor); Joseph Priestley (British chemistry pioneer); Richard Arkwright (British cotton-spinning inventor); John Fitch (American steamboat inventor); and the Montgolfier brothers (French aeronauts).

As the foremost American general, Washington promoted at least one engineering marvel ahead of its time. During the Revolutionary War, he sent David Bushnell's hand-operated submarine into New York Harbor to sink a British warship. The Turtle's lone operator attempted to attach a timed bomb to the British Eagle's hull. The mission failed when the bomb floated away before exploding. The technology just wasn't advanced enough for Washington's vision, and submarines didn't become a force in navies for the next 100 years.

On June 9, 1778, at Valley Forge, Pennsylvania, General George Washington issued a call for engineers and engineering education. This order is considered the genesis of a US Army Engineer School, which found its permanent home at Fort Belvoir, Virginia, where Washington had practiced surveying. As President (1789-97), Washington pushed for the passage of the first US Patent Act in 1789, and signed the first official US patent to Samuel Hopkins of Philadelphia, Pennsylvania, for his process of making potash and pearl ashes. In 1794, President Washington established a Corps of Artillerists and Engineers to be educated and stationed at West Point in New York, which later became the US Military Academy at West Point.

From transportation to education, Washington's engineering vision proved to be ahead of its time. After his death in 1799, many of the technologies he supported provided an impetus to the American Industrial Revolution. New York's Erie Canal (1817-25) was built, and canals soon crisscrossed America east of the Mississippi. By the 1830s, the

nation's population tripled, traveling west through canals, along rivers, and across new roads and bridges. The Army Corps of Engineers began many of these projects.

By the middle of the century, the railroads become the favored mode of transportation. As a result, America had gone west and Washington's vision was realized.

**Submitted by Judy Seal, WTS Engineering**  
**Source: [eweek.org](http://eweek.org)**

## WIPP achieves safest year in its history



Workers at WIPP safely handling TRU waste underground in preparation for final disposal.

The safest year in WIPP history. That's how 2007 is being described after WIPP participants achieved the lowest total recordable case rate (TRC) ever.

The TRC for WIPP in 2007 was 0.53. So what does this really mean? To answer that question, let's take a look at what we mean by the TRC rate, who at WIPP is involved and how 2007 compared to previous years.

### What is the TRC rate?

The root of the TRC rate is the recordable injury, as defined by the Occupational Safety and Health Administration (OSHA). OSHA defines a recordable injury as anything that goes beyond first aid. A few examples of injuries that would be recordable are those that would involve stitches, prescription medication, broken bones or restricted duty. WIPP had six recordable injuries in 2007.

The TRC is calculated by multiplying the number of recordable injury cases by 200,000 and then dividing the result by the number of hours worked. The outcome of this formula approximates the number of cases per 100 employees per year.

So WIPP's 2007 TRC rate of 0.53 basically means that for the year there was approximately one recordable injury for every 200 employees.

### Who at WIPP is involved?

The TRC rate for WIPP is calculated using the number of recordable injuries and hours worked by CBFO, WTS and its subcontractors, CTAC, LANL-CB and SNL-CPG regardless of whether the work is at WIPP or some other part of the country. In fact, only one of WIPP's six recordable injuries occurred within the fenced area at the WIPP site and none of those injuries involved mining, waste handling or disposal of waste at WIPP. The total hours worked in 2007 were 2,250,102.

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### Interested in WIPP?

If you would like to be notified when TRU TeamWorks is updated with the latest information about WIPP, send an e-mail message to [TRUTeamWorks@wipp.ws](mailto:TRUTeamWorks@wipp.ws).

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### WIPP TRC rate compared to previous years

WIPP's lowest ever TRC rate in 2007 of 0.53 was nearly half the 2006 rate of 0.9. Looking at the numbers for the previous five years, you can see that it was a good year for safety at WIPP.

TRC Rate	2002	2003	2004	2005	2006	2007
WIPP	1.6	1.6	1.0	0.6	0.9	0.53

Meeting or beating 2007's results is our challenge in 2008, but of course WIPP's goal continues to be zero injuries for everyone.

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The U.S. Department of Energy  
Waste Isolation Pilot Plant

Please send comments and/or  
suggestions to: [TRU TeamWorks](mailto:TRUTeamWorks)

