Community teams bring lab equipment to CEMRC

Approximately 1.5 million dollars worth of modern analytical laboratory equipment has been brought to the Carlsbad Environmental Monitoring and Research Center (CEMRC) from a laboratory in Grand Junction, CO. The equipment enables CEMRC to develop additional capabilities in line with its business plan objectives. So much equipment and consumables were retrieved by WTS that companies sharing space at the CEMRC facility also benefited. Thanks to the quick work of WTS employee Candice Jierree, WIPP received first choice of all the available equipment.

The laboratory supported the Uranium Mill Tailings Remedial Action (UMTRA) project. UMTRA is a DOE project in the final stages of completing its mission. Government-funded equipment no longer needed by DOE facilities becomes available to other DOE facilities and contractors. Jierree consulted with WIPP participants who maintain laboratories, CEMRC, LANL, SNL and WTS, to determine their equipment needs and followed up with a first claim. The next step was getting the goods to Carlsbad – a major hurdle. “Many common carriers did not want to handle such delicate equipment, and others were scared off because of the radiation postings still present within the vacated laboratory,” Jierree comments.

WTS made a scoping visit to the laboratory in April, photographed the equipment, estimated weights, reviewed survey data, floor loading limits, access limitations and determined the driving conditions.

Another obstacle was funding. But through a generous cost-sharing agreement between Carlsbad Mayor Bob Forrest and WTS General Manager Steve Warren, funding was provided.

“This generous approach to funding a project which provided benefits to CERMC and the other WIPP companies made the effort a real win-win for Carlsbad,” Jierree said.

A caravan of three WTS vehicles and one CEMRC vehicle made the 16-hour drive to Grand Junction to pack and load the equipment the week of May 9. All vehicles were loaded with high priority items. “Every article we loaded first received a radiation survey by WTS Radiological Control personnel. All items surveyed clean. This step assured the items were free of any contamination. It also assured that no contamination would be brought into a user laboratory,” Jierree adds.

Participants on the project included Steve Childress, Tony Donner, Glen Galloway, Russ Whitely, Genaro Cabrera, Andy Walker and Candice Jierree from WTS along with Cheryl Schloesslin of CEMRC. Following a quality inspection and property tagging, the equipment will be moved into various laboratories at CEMRC for installation, calibration and use.
**WIPP-derived is also WIPP-disposed**

As the designated TRU waste repository for the DOE complex, WIPP disposes of TRU wastes generated at sites all across the country. But what happens to TRU waste generated at WIPP? Which site disposes of our TRU waste? Where is WIPP-generated waste characterized? The answer, of course, is WIPP!

TRU waste generated as a result of waste handling activities at WIPP is termed “derived” waste. This waste can contain used personal protective equipment, wipes and tools that may result from decontamination operations and off-normal events. The WIPP Hazardous Waste Facility Permit (HWFP) allows for the disposal of derived waste at WIPP without additional characterization. The permit allows knowledge of the processes that generated the waste at WIPP to be used to characterize the hazardous constituents in derived waste. In effect, WIPP produces its own acceptable knowledge as the waste is generated.

“TRU waste that comes to WIPP is already approved for disposal,” explains Randy Britain, WTS Waste Operations manager. “Derived waste is generated as a result of an abnormal event while processing approved TRU waste. So derived waste is acceptable for disposal at WIPP, if we can ensure that no new hazardous components have been added to it.”

But how does WIPP ensure that no new hazardous constituents are added to derived waste? The work begins before derived waste is generated. WIPP operations personnel use written procedures and radiological work permits (RWP) to plan tasks before performing their work. During those planning stages, the clean-up strategy is identified. The procedures state that new hazardous constituents will not be used. The RWPs are job-specific and define limiting conditions, personnel protective equipment, current radiological conditions and also preclude the use of hazardous chemicals. These measures ensure that derived waste will not contain additional hazardous constituents.

Once derived waste is generated, it is managed in accordance with HWFP requirements. The waste is contained in standard Type A containers and is stored in a specific area on standard drum pallets. The pallets elevate the containers a minimum of six inches above the floor and provide approximately 80 gallons of secondary containment capacity. As each derived waste container is filled, it is closed with a lid containing a HEPA-grade filter and moved to an Underground Hazardous Waste Disposal Unit using the same equipment used for handling TRU mixed waste. The data on the waste is then entered into the WIPP Waste Information System database, just as it is for any other waste container that is approved for disposal at WIPP.

“WIPP has generated two drums of derived waste in our five years of operation,” notes Britain. “We work to keep our own TRU waste generation levels as low as reasonably achievable throughout the lifetime of the facility.”

For more information on the management of derived waste, check out Attachment M1 of the HWFP.
Not your average truck driver

Drivers who haul WIPP waste are often referred to as the best-trained, safest drivers on the road. It’s no overstatement when one considers the qualification and training drivers go through prior to employment. Potential drivers must complete a laundry list of pre-employment and training qualifications before a first load is ever transported.

Experienced drivers will meet a variety of prerequisites before being considered for employment as a WIPP driver. They must have logged a minimum of 325,000 miles during the last five years or 100,000 per year for two of the last five years. Additionally, drivers must not have received a chargeable accident or have been convicted of a moving violation in a commercial vehicle within the five years prior to employment. WIPP drivers cannot have repeated chargeable incidents or moving violations. Any past conviction for driving under the influence or a felony makes a candidate ineligible. Private driving records are also scrutinized.

After employment, the drivers must complete a number of on-the-job-training requirements. Training is conducted by both the contractor who employs the driver and the WTS Training Department. Training performed by the shipping contractor must be audited and approved by CBFO prior to implementation.

New drivers must successfully pass Department of Transportation requirements, plus WIPP-specific training required by CBFO:

- Operation of TRUPACT-II tie-downs
- Use of radiation detection instruments
- WIPP General Employee Training
- Adverse weather and safe parking protocols
- Public affairs training
- WIPP first responder and incident command training
- Radiation worker training
- Use of TRANSCOM tracking system
- Any additional generator/storage site-required training

To round out the driver qualifications, WIPP’s two shipping contractors require drivers who haul TRU waste to complete shipping container recovery procedures, Commercial Vehicle Safety Alliance enhanced vehicle inspector training, decision driver training, and use of satellite telephones and handheld radios.
If the message is difficult to read, rewrite the message in your language

- proposed text on WIPP permanent marker

The passage above may be read by area inhabitants thousands of years from now – maybe not. As remote as the possibility is, scientists agree that human intrusion is the scenario most likely to compromise WIPP’s ability to contain radioactive and hazardous materials – inadvertent drilling for resources, the most likely cause. As a public safeguard, EPA regulatory standards say: “Disposal sites shall be designated by the most permanent markers, records, and other passive institutional controls practicable.” For WIPP, “most permanent” spans a 10,000-year regulatory time frame, or twice that of man’s recorded history.

In 1990, an elite panel of experts in geography, futures research, climatology, technology and social sciences, gathered in Albuquerque to make educated assumptions about the future state of societies living near WIPP. Forecasting life from 2035 to 12,000 A.D., the so-called Futures Panel set millennial guideposts for the Marker Panel to follow – a group assembled in 1991 to develop preliminary designs for a WIPP permanent marker system.

The Futures Panel was composed of four, four-person panels, located in different geographical areas, all working to identical criteria. DOE asked panel members to consider marker design characteristics and implementation, alternate futures, and to foretell circumstances under which future societies might intrude upon the WIPP repository. The panel was to assign quantitative values (probability sets) to the likelihood and type of human intrusion (inadvertent or intentional). Along with the panel’s conclusions was a disclaimer: the future is uncertain. Some, or none, of the postulated events may occur within 10,000 years.

Other than using structured models for collection and presentation of their findings, panel members were free to follow diverse paths to the future.

Below are some Futures Panel recommendations for design of a permanent marker system:

1. Potential intrusion analysis should be performed every 25 years or so.
2. The Marker Panel should consider not marking the site, so as not to attract attention.
3. Consider viewpoints of local residents, women, members of ethnic and minority groups for reaction to marker designs and passive controls.
4. Consider deploying surface markers and mounds of earth in large patterns visible from airspace.
5. Assess the feasibility of a WIPP museum near the site.

Look for contributions of the Marker Panel in the next edition of TRU TeamWorks.

Raging flames, billowing smoke and temperatures as high as 800 degrees Fahrenheit. Sounds like a typical fire, but a team of WIPP emergency responders recently learned that there is no such thing.

The team tested its skills at the State Fire Academy in Socorro, NM, where they spent two days working through challenging scenarios, called evolutions. First-time participant Clint Cassingham (Santa Fe Protective Services) describes the experience as intense. “A lot of the time you couldn’t see your hand in front of your face because of the smoke,” says Cassingham. “But it was very safe. There were instructors nearby that kept a close watch.”

For Darren Easley (WTS), this wasn’t a new experience. Easley has trained at the Fire Academy four times before and says they really tried to change it up this year. “This was the best I’d ever seen,” he says. “The training was a lot more demanding, and there were some pretty impressive fires.”

On the first day, they practiced skills such as search and rescue techniques, maintaining safe breathing and putting out fires inside buildings. Participants were fully suited with fire safety gear that included a 35-pound backpack with a self-contained breathing apparatus. They were tasked with sizing up the scene and then developing and implementing a plan of action.

On the second day, participants worked on techniques for extinguishing flammable liquid burns. The scenarios used standard stacked boxes and props set ablaze with diesel fuel and propane. The challenge for firefighters was to work together in varying circumstances.

One test required participants to extinguish a fire in an enormous burn pit. The firefighters used hoses to spray what is called a water fog pattern that protected them from the extreme heat as they approached. The stream was then changed to a cone pattern to suppress the fire.

Newcomer Cassingham had high praise for the experience afterward. “The training gives you the sense of what you’re supposed to be doing and how you’re supposed to do it. By the time it’s all said and done, you know you can do it in a real situation.” And would he ever go back and do it again? “Absolutely,” he replies.

Congratulations to the WIPP team for successfully completing this difficult training. There’s a saying among firefighters that sums it up … “Face shields down to those who run towards what others run from!”

Click here to see a video of WIPP firefighters in action at the Fire Academy (file size is about 3 MB)
Working smart for a great vacation

The best way to start a vacation is to work smart before you leave. The weather’s nice and the kids are finally out of school so a lot of families plan vacations for this time of year. But before you pack up the car and head out of town, make sure you’ve planned your exit strategy from the workplace so you don’t get overwhelmed when you get back. Here are some helpful tips when scheduling your vacation.

**Stagger vacation schedules**
Talk with your manager in advance to approve your vacation and to ensure your schedule does not conflict with others who are also taking vacation. This is particularly important if there are certain skills and abilities that are relied upon to achieve WIPP’s mission and objectives.

**Use standard office tools**
Change the voice mail greeting on your phone and use your Out-Of-Office Assistant on your computer to let people know who they should contact while you are out of the office. This way, colleagues will know you are out and when you will return.

**Arrange for back-up**
Make sure you have a back-up so your work will be covered while you are out. This is especially important for people who are on-call or who serve as office wardens.

**Talk to your co-workers**
Let people you deal with on a day-to-day basis know you will be out of the office for a particular period of time and who they should contact in your absence.

**Fill out your timesheet in advance**
Don’t forget to submit your timesheet. It will save you the trouble later of having to go back and make corrections when you return.

Taking care of these details before you leave can help keep work-related worries from interfering with your vacation time with friends and family.
DOE is organizing a topical session for the 2004 Annual Meeting of the Geological Society of America (GSA) scheduled the week of November 7-10, 2004, in Denver, CO.

Proposed jointly by the Office of Repository Development (Yucca Mountain) and the Carlsbad Field Office, the session is sponsored by GSA’s Hydrogeology Division. Topical Session No. T33 is entitled: “Geologic Disposal of Radioactive Waste: Rising to the Challenge of Regulatory Requirements and Environmental Protection at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico, and the Yucca Mountain Site, Southern Nevada.”

The WIPP community is encouraged to submit technical abstracts related to the following subjects:

1. Planning, designing and implementing field tests and/or laboratory experiments
2. Conducting and acquiring data from field tests and/or laboratory experiments
3. Analyzing data acquired from field tests and/or laboratory experiments
4. Developing conceptual and numeric models for processes at the geologic disposal sites
5. Controlling and using samples and data in a regulatory and licensing environment
6. Using acquired data in models describing physical and/or chemical processes
7. The linking of results from process models for use in performance models
8. Developing and implementing the Performance Assessment Model for CRA
9. Building confidence in conceptual and numeric models and their resulting data
10. Developing a performance monitoring program that meets appropriate regulatory requirements

Those interested in participating should submit abstracts through the GSA Web site on or before July 13, 2004. For more information on the conference or for instructions on how to submit an abstract, follow the provided Web link - http://www.geosociety.org/meetings/2004/.

Local contacts:
Russ Patterson at (505) 234-7457 and Steve Casey at (505) 234-7643.

Quality New Mexico (QNM) examiner training set at NMSU-C

NMSU-C will be hosting examiner training for Quality New Mexico on August 11-12.

Quality New Mexico examiner applications are due on May 31. To apply directly, log onto the QNM Website at http://www.qualitynewmexico.org.

For more information, contact Rick Blackburn NMSU-C campus academic officer and Quality New Mexico board member at 234-9200.
Birthdays

Melody Smith (WTS) - May 28
Angela Ashford (L&M) - June 2

WIPP employees earn degree honors

Congratulations to the following WIPP employees for completing their college degrees:

Dennis Mathieu (WTS) earned his associate’s degree in Electronics Technology from New Mexico State University-Carlsbad.

Tony Alston (WTS) graduated in May with a bachelor’s degree in Business Management from College of the Southwest.

Know of other WIPP graduates? Let TRU TeamWorks know!

Retiring

Scott Phillips (L&M) will retire effective June 1.