TRU TeamWorks

July 16, 2009

WIPP Quick Facts
(As of 7-15-09)

7,583
Shipments received since opening
(7,335 CH and 248 RH)

61,184
Cubic meters of waste disposed
(61,070CH and 114 RH)

116,765
Containers disposed in the underground
(116,523 CH and 242 RH)

A special thanks to all those who prepared for and assisted with the EMS audit

Hardy Bellows
Wes Boatwright
Leroy Bostick
Tom Fabian
Ed Flynn
Marty Gonzales
Ken Hasten
James Hedin
Bill Jaco
Judy Lanier
Tom Lichty
Willie Most
Parrish Roush
Craig Suggs
Steve Travis
Rick Whiteley
Bill Wierzbicki
Pat Yocum

Environmental Management System Receives ISO Certification

Pictured holding the ISO Certification flag from left to right: Kristine Nelson, Susan McCauslin, WTS President and General Manager Farok Sharif, CBFO Manager Dave Moody, George Basabilvazo, Paul Hunt, Judy McLemore and Stewart Jones.

Washington TRU Solutions (WTS) recently earned the ISO 14001:2004 certification for the WIPP environmental management systems (EMS). ISO 14001:2004 is a standard for EMS developed by the International Organization for Standardization. WIPP received notice of certification May 28.

This ISO standard specifies requirements for maintaining an EMS to ensure an organization protects the environment, prevents pollution, complies with legal requirements and continually improves environmental performance.

WIPP's EMS has maintained alignment with the standard since 1998 but has not been formally certified since 2002. In order to receive this certification, an external third-party team from Advanced Waste Management Systems, which is an accredited registrar, completed an in-depth audit at the site to determine if the EMS conformed to requirements. WIPP complied with all of the requirements from the 17 different elements of the ISO standard.

EMS coordinator Judy McLemore said it was important to receive this certification because it demonstrates that WIPP has a system in place that considers potential environmental impacts and legal requirements and makes the effort to maintain an environmentally safe facility.

"This is an internationally recognized standard for environmental management," McLemore said. "Achieving this certification gives the EMS credibility with internal and external WIPP stakeholders because it demonstrates our commitment and capability to fulfill the highest standards of environmental performance in balance with socio-economic needs."

DOE requires that every site throughout the complex must have fully implemented EMS. WIPP is now one of several sites across the complex that is ISO certified.

WIPP's EMS is certified for three years, but the facility will be audited semi-annually to assure that WIPP maintains compliance with ISO requirements throughout the certification period.

New DSA Implemented

The new Documented Safety Analysis (DSA) went into effect June 24. Implementation of the new DSA culminates a 27-month process that delineates requirement changes for waste handling, maintenance and facility operations. The new DSA will reinforce posture for discipline, rigor, compliance and continuous WIPP improvement.

Watch for a full DSA article in the next issue of TRU TeamWorks.

New American Reinvestment and Recovery Act Building Open

The DOE has opened a new local office to support the CBFO American Reinvestment and Recovery Act (ARRA) Project.

The office, which is located at 315 N. Canal, is staffed by 18 CBFO and contractor personnel dedicated to managing CBFO Recovery Act Project activities. To meet President Obama's commitment to transparency and accountability for Recovery Act monies, the staff will track and report funding and spending by the DOE Carlsbad Field Office and WIPP.

Doug Steffen, the Recovery Act Project (RAP) team manager, said the transition from the Skeen-Whitlock Building to the new building has been an adjustment, but a very good move that allows the RAP team to focus on its goals.

"The new building gives the WIPP RAP team a chance to work closely, instead of being spread out throughout the Skeen-Whitlock Building," Steffen said. "We can work more efficiently."

The ARRA building, formally occupied by New Mexico State University-Carlsbad, was upgraded prior to the employee move-in on June 19, including paving the parking lot, repainting the building, obtaining keycard clearance and setting up the computer network.

Deana Pearce, a member of the RAP team, was impressed with the transition to the new building.

"Where do I start? Steve Childress and the property management crew, along with the IT department, did an outstanding job, she said. "Steve and his guys were so

organized and thought of every detail of the moving process. Gerald Holguin, Debbie Martin, Steve Sauer and John Lucero were awesome; we were up and running computer-wise on the first day. And Kelly Satterfield worked diligently to have the phone system ready."

Members of the team are glad the move is over and are ready to get to work. "Communication has picked up and misunderstandings are down. If we have questions, we can walk next door and ask," noted Steffen.

Approximately $138 million – 80 percent of the funding – is now available to the site for Recovery Act work. The Recovery Act has also provided funds to other sites across the DOE Environmental Management complex that will go toward preparing TRU waste for shipment to WIPP. Additional information on the ARRA funding or on DOE's Office of Environmental Management can be found at www.em.doe.gov.

WIPP Security Competes in Albuquerque Competition

Security Walls, LLC employees recently competed at the annual DOE Security Protection Officer Training Competition (SPOTC) in Albuquerque. WIPP was represented by, from left to right, Clayton Ardoin (training director), SPO Brandon Berry, SPO Naaman Martinez, SPO Sam Stone, SPO Adam Alvarado and Bobby Martinez (rangemaster/captain).

"We are very proud of these guys," said Security Walls' Richard De Los Santos. "The tryouts themselves are really strenuous. (At the competition) they are competing against other sites that are much bigger than ours in some cases, but we hold our own. Our guysare good enough and trained well enough to take the lead on it."

EXO on the go – particle physics experiment now in testing phase

By now, most employees at WIPP have come to recognize the men and women in blue.

Members of the Enriched Xenon Observatory (EXO) project put on blue coveralls during their daily trek underground as one of numerous additional efforts to keep natural background radiation away from their experiment on the northern end of WIPP's underground repository.

NOVA Science Now to air WIPP special

On July 28, NOVA Science Now will air a special called “Secrets in the Salt” on the PBS (local Channel 3) regarding the biology of WIPP. The special focuses on the liquid inclusions found in the 250 million-year-old liquid salt from WIPP’s underground.

A study was performed by Dr. Jack Griffith, a microbiology and biochemistry professor from the University of North Carolina at Chapel Hill, and his team after they toured the WIPP underground.

Graduate student Derek Mackay handles a piece of equipment while working at the Enriched Xenon Observatory, located in the WIPP underground. The experiment, which attempts to detect neutrinoless double beta decay using enriched xenon, benefits from the low levels of natural radiation in the WIPP underground.

Stanford University leads a host of academic institutions in the particle physics experiment aiming to detect neutrino-less double beta decay using enriched xenon. The project held its ribbon-cutting last October. Now, researchers are essentially putting the final touches on the equipment.

“I’d say we’re in a transitional stage,” said Stanford graduate student Francisco LePort, one of the project’s leads. “We’re still doing some building, but we’re also testing equipment.”

Recently, members of the EXO project have been busy installing a set of copperdoors on the front of the cryostat, where the experiment will take place. Why copper? It emits a much lower natural radiation than steel, which would have mechanically served the same purpose.

The cryostat weighs about eight tons and is supported by about 70 tons of lead, LePort said.

Also recently, a team installed a “veto machine” in the observatory. A veto machine protects the experiment just in case the numerous other safeguards to avoid natural radiation aren’t enough.

“The reason we are in a mine is to shield our site from cosmic rays,” LePort noted. “If cosmic rays do get in, it will signal so we can get rid of that data.”

The experiment’s brain – the detector – is currently being assembled at Stanford. It will be encased in a thick shield to protect it from exposure to natural radiation and then carefully shipped to WIPP.

If everything goes according to plan, the experiment itself should begin during the first few months of 2010. The tanks of enriched Xenon have already arrived and are

currently stored in a nearby module.

Members of the EXO team assemble above ground at about 7 a.m. every morning to make a morning trip down the salt hoist. From there, it’s a short electric cart trip or walk to the northern portion of the underground facility.

LePort said he expected he’d wind up doing graduate research underground. He’d previously worked on a similar neutrino project at a mine in Japan.

“Going into particle neutrino physics, essentially all of the experiments happen in mines. So you know mines will be a big part of your career,” he noted.

Stanford University graduate student Francisco LePort opens the door to one of the modules at the Enriched Xenon Observatory in the WIPP underground. LePort is one of the project’s team leads.

A native of California, LePort obtained his undergraduate degree when he was just 17. Always interested in physics and chemistry, he found himself drawn to the world of neutrinos. After all, a mission to find out why things happen the way they do should start at the smallest level.

“For me, the interest is in really understanding the fundamental building blocks of the world, and you can’t get more fundamental than particle physics,” he said.

CTAC Receives Token of Appreciation
Mine Safety and Health Conference

Cindi Castillo and Donna Carter of Navarro Research and Engineering, Inc. holder of the CTAC prime contract receive a token of appreciation from Terence Foreback, New Mexico State Mine Inspector, in recognition of their efforts in organizing the 2009 Mine Safety and Health Conference. The conference, which was attended by over 100 people, was held in Socorro, NM, in May. Castillo and Carter were responsible for marketing, publications and registrations for the annual conference.

Pictured above from left to right are Dr. Dave Moody, CBFO Manager; Castillo; Foreback, NM State Mine Inspector; Carter; and Randy Steger, Navarro/CTAC Environmental Compliance & Safety Support manager.

Alternate waste route construction underway

Mining is underway in West-30 to create an alternate waste route to East-140, the primary transport route in the underground. East-140 is used to transport TRU waste from the waste shaft to the disposal panels. When completed, West 30 will serve as a secondary route if maintenance or other work is being performed in East-140.

Project Manager Dave Sjomeling notes that maintenance in the underground is continuous due to “salt creep”—salt moves slowly to fill in mined-out openings.

“Maintenance is going on every week,” Sjomeling said. “If East-140 undergoes maintenance work that could take a significant amount of time, West-30 will be used as an alternate waste transport route to ensure waste handling operations continue until the primary drift is complete.”

East-140 is approximately 25-feet wide. Currently, West-30 is only 14 feet wide—not wide enough to safely accommodate the large equipment used to transport waste in the underground. Once the project is complete, West-30 is expected to be nominally 20-feet wide and 14-feet high.

In addition to widening West-30, two overcasts will be designed, fabricated and installed and bulkheads reconfigured to provide sufficient ventilation for the new route.

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

Please send comments and/or suggestions to: TRU TeamWorks