



## Hillside “Remodel” Almost Complete

If you headed north out of Moab on U.S. Highway 191 this past winter, you probably noticed a variety of heavy equipment working on the hillside above State Route 279 (Potash Road). Scrapers, graders, excavators, loaders, dump trucks, cranes, and water trucks have been busy constructing the haul road up to the rail load out area for the transportation of the uranium mill tailings from the Moab site to the Crescent Junction site for disposal. Speaking of the rail load out area, this too was reconfigured for use by the U.S. Department of Energy (DOE) Moab Uranium Mill Tailings Remedial Action (UMTRA) Project. The hillside construction work is complete and ready for the start of the tailings transportation phase of the project.

To transport containers from the Support Area of the Moab site to the load out area, trucks carrying filled containers will cross Potash Road using an at-grade crossing to access the one-way road that climbs 180 feet to the rail track. The rail between the Moab and Crescent Junction sites is called the Cane Creek Subdivision line.

### Potash Road Crossing

DOE worked with the Utah Department of Transportation (DOT) to secure an access permit for the Potash Road crossing. DOE will implement measures to mitigate potential safety concerns associated with this crossing, such as motorists inadvertently turning onto the haul road. These measures include use of flaggers on either side of the crossing, installing gates to prohibit access to the haul road during off-hours, installing signs on Potash

Road to warn motorists of the approaching construction area, and yielding the right-of-way to Potash Road traffic. As transport operations progress, the haul truck crossing will be monitored and evaluated for possible modification or additional safety improvements. The crossing will be improved to accommodate haul traffic according to Utah DOT specifications.

### Load Out Area Gantry Crane

At the load out area, a gantry crane will exchange an empty container on a railcar with a filled container from a haul truck. The truck now carrying an empty container will return to the Support Area on a separate one-way road headed downhill to the crossing at Potash Road. The downhill haul road is mostly at an 10-percent grade but has a maximum 12-percent grade that was necessary to avoid the existing power lines. The truck will then receive another filled container in the Support Area and start the loop again.

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*This gantry crane will straddle the rail lines and a haul road lane.*

## Message From the Federal Project Director

As you receive this newsletter, we should be within days of beginning the rail shipments of the uranium mill tailings at the Moab site to the Crescent Junction disposal site. I know many of you have waited a long time for this day to come. The DOE and contractor teams have been working diligently over the past several months to complete the extensive infrastructure construction necessary for us to begin the tailings haul. In this edition of the *Tailings Times*, we bring you up to date on the vast array of construction and tailings preparation activities, discuss our emergency response coordination efforts and radon monitoring, and recognize one of my valued DOE staff members.



*Donald Metzler, Federal Project Director*

As you may have seen in the news, numerous DOE Office of Environmental Management sites and projects, including the Moab Project, will receive additional funding through the American Recovery and Reinvestment Act of 2009. The Moab Project will receive \$108 million that will be used to relocate an additional 2 million tons of tailings by the end of fiscal year 2011 than planned. The Moab Project is in a good position to apply these funds in a timely manner because we are “shovel-ready.”

The topic of local hiring often comes up when I am at Moab Tailings Project Steering Committee meetings or talking with seniors at the Grand Center and other folks around Moab. Although the contractors have not previously tracked where their employees live, we asked them about their most recent hires since the beginning of 2009. Of the 40 positions that *EnergySolutions* and its teaming partner *Envirocon* filled, two-thirds were from Moab, a quarter came from other parts of Utah, and four

were from other states. There were no local qualified candidates for the positions filled by out-of-state applicants. As has been our practice in the past, we will continue to post new positions, including those created through the Recovery Act funding, with the Utah Workforce Services and on the project website.

This and previous editions of the newsletter can be found on our website at <http://www.gjem.energy.gov/moab> under the General bullet. ☰

*Tailings Times* is published periodically by the U.S. Department of Energy Office of Environmental Management in Grand Junction, Colorado, to inform stakeholders of progress to date on the Moab UMTRA Project and plans for future activities.

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## Hillside “Remodel” Almost Complete (continued from page 1)

The gantry crane was built by Taylor Machine Works, Inc., in Mississippi, and is capable of lifting 50 tons, more than enough for the filled container weight. The crane spans 47.5 feet and straddles the Cane Creek Subdivision line, spur, and truck lane. “It’s nice to know that the United States still manufactures such an impressive piece of equipment,” said Federal Project Director Donald Metzler. Each day, the crane will traverse the load out area from the tunnel portal along 1,600 feet of rail, removing all 88 empty containers from the 22 railcars and replacing them with an equal number of filled containers.

### A Stable Hillside

One of the challenges the geotechnical engineers on the Moab Project faced was to design a stable haul road from the crossing at Potash Road up the hillside to the load out area. The hillside is composed of sedimentary rocks including sandstones, mudstones, siltstones, and shales, and is complicated by prehistoric movement on the Moab Fault that, in some areas, totally altered the orientation and structure of the rocks. The proposed road location required adding soil up to 80 feet thick that extended out from the existing slope up to 35 feet.

### Geogrid and Hilfiker Retaining Wall

Plastic matting called geogrid specifically designed for stabilization of steep slopes was applied to portions of the hillside. The geogrid was laid over 3-foot horizontal lifts or benches of soil and “anchored” to the existing rock by burying one end in a shallow trench next to the hillside. The geogrid is used to increase friction (slide) resistance between the soil layers in the haul road, thus strengthening the soil to minimize erosion on the slope and support the load from the truck traffic above.

In addition to the geogrid, a retaining wall made by Hilfiker Retaining Walls was constructed on a portion of the hillside to provide structural support. The wall consists of welded wire mats placed between 2-foot layers of compacted fill. The exposed facing of the wall is lined with geotextile matting and gravel as an erosion inhibitor.



*Top photo: Geogrid was laid in portions of the hillside to provide stabilization for the haul road.*

*Bottom photo: The Hilfiker retaining wall (darker portion on hillside) provides additional structure support. A portion of a rock-lined drainage ditch is visible on the right side.*

### Drainage Control

Control of drainage is another essential aspect of maintaining a stable hillside. Rock-lined ditches and steel and concrete culverts were installed along and under the railroad tracks in three locations to direct storm runoff from the rail bench to along Potash Road where it is directed under the haul road and ultimately to Moab Wash.

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## Hillside “Remodel” Almost Complete (continued from page 3)



Workers remove the Cane Creek Subdivision line near the tunnel portal.



New track is being laid north of the rail load out area.



Heavy equipment reshapes the portion of the hillside overlooking the entrance to Arches National Park.

### Rail Work

Working collaboratively with Union Pacific Railroad Company (Union Pacific), the Remedial Action Contractor was allowed to perform most of the rail work at the Moab site that Union Pacific originally planned to do. In addition, Union Pacific and Utah DOT determined that some of the rail crossing upgrades did not need to be completed prior to the start of tailings shipments. These accommodations enabled us to expedite the schedule for the first tailings shipment to late April.

### Cane Creek Subdivision Line Replacement

Because the slope of the existing Cane Creek Subdivision line was too steep for loading the tailings train, 3,800 feet of the rail line beginning at the tunnel portal had to be temporarily removed to lower the rail bench to the allowable grade. The rail bench was lowered 14 feet at its maximum to attain the necessary 0.4-percent grade.

The existing track, which had been in place since the early 1960s when it was originally installed, was removed in early January 2009. DOE coordinated the timing of this 2-month effort with Intrepid Potash, LLC, to minimize the impacts to its once-a-week rail service. “We greatly appreciate Intrepid accommodating our track replacement schedule. Our goal was to get them back online as quickly as possible to minimize the disruption to their rail service,” said Donald Metzler.

The new rail was welded together into 800-foot sections and then positioned on ties for final welding into one continuous piece. Union Pacific resumed its service to Intrepid on March 6.

### Rail Spurs

The existing spur at Moab was removed last fall in preparation for construction of the haul road, lowering of the rail bench, and placement of new track near the portal. A new spur was installed in March that runs parallel to the Cane Creek Subdivision line for 1,800 feet and joins the subdivision line at the north end of the Moab site boundary. In early April, the project began receiving the intermodal containers and railcars that will be used to carry tailings to the Crescent Junction disposal cell.

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## Hillside “Remodel” Almost Complete (continued from page 4)

About 323,000 cubic yards of material from portions of the hillside above the rail had to be removed to make room for the new spur. This excess material was reused in other areas of the hillside where fill was needed, such as on the downhill haul road and to stabilize the slopes.

New track totaling 7,500 feet was also laid at the Crescent Junction site to stage the railcars while filled containers are removed and replaced with empty ones for the return trip to Moab. The spur joins the Union Pacific Green River Subdivision line, which also connects to the Cane Creek Subdivision line. Union Pacific installed electronic switches at the intersections of the spur and the subdivision lines near Crescent Junction. Rail panels were reused from another DOE site in Ohio for much of this spur and the one at Moab.

### Other Rail Improvements

Union Pacific replaced 15,000 ties along the Cane Creek Subdivision line from Moab to Crescent Junction and laid new continuous welded rail or “ribbon” rail in lengths of 1,000 feet or longer to upgrade some curves. Additional gravel was deposited in places along the railroad bed in places for reinforcement.

*Sodium iodide detectors extending from the high-rail truck measure gamma exposure rates along the rail route.*



### Rail Survey

Last fall, the Technical Assistance Contractor conducted a baseline gamma radiation exposure rate survey of the rail from the Crescent Junction site to the portal at Moab, including 9 feet on either side of the centerline. The purpose of the survey was to document the radiological condition of the rail route prior to the start of the tailings transportation. A global positioning system unit reported date, time, and location data as sodium iodide detectors concurrently measured gamma exposure rates. The instruments were attached to the hitch of a high-rail truck (truck mounted on rail wheels) that traveled along the 28.5-mile route at 2 to 3 miles per hour.

Gamma exposure rates that exceeded 1.3 times the background exposure rate of 12 microrentgens per hour were investigated to determine the source of the elevated readings. Most of the elevated readings were attributed to naturally occurring radioactive material found in the geologic deposits that the track traverses. Windblown tailings and uranium ore were identified in the load out area at the Moab site. This material has since been remediated during the rail construction effort. Additional surveys will be conducted periodically throughout the transportation phase of the project to confirm that no changes in the radiological condition of the railroad bed have occurred. ☞

*This train-mounted track hoe is removing soil from along the track to allow for proper drainage.*



## Material-Handling Infrastructure and Processes

### Support Area

The tailings container handling and staging area at the Moab site is known as the Support Area (see Figure 1). Preparation of this area began last spring with the removal of contaminated soil that was placed on top of the tailings pile. In August 2008, the vehicle maintenance structure was erected. The lidding structure that was constructed last fall recently became operational with installation of electricity to run the two gantry cranes that will place lids on and remove lids from the containers.

Twelve inches of base gravel was laid throughout most of the Support Area. Two office trailers and an access-control trailer were installed this March. A fueling station now sits adjacent to the maintenance structure and jersey barriers were set up to define the Contaminated Area boundary within the Support Area.

*A gantry crane in the lidding structure places a lid on a container.*

### Container Filling

Tailings-packaging operations begin when a truck transports an empty container up to the tailings pile to be filled. A specially designed loading chute with an integrated weigh scale is stationed on top of the pile for use in guiding the tailings into the container. The

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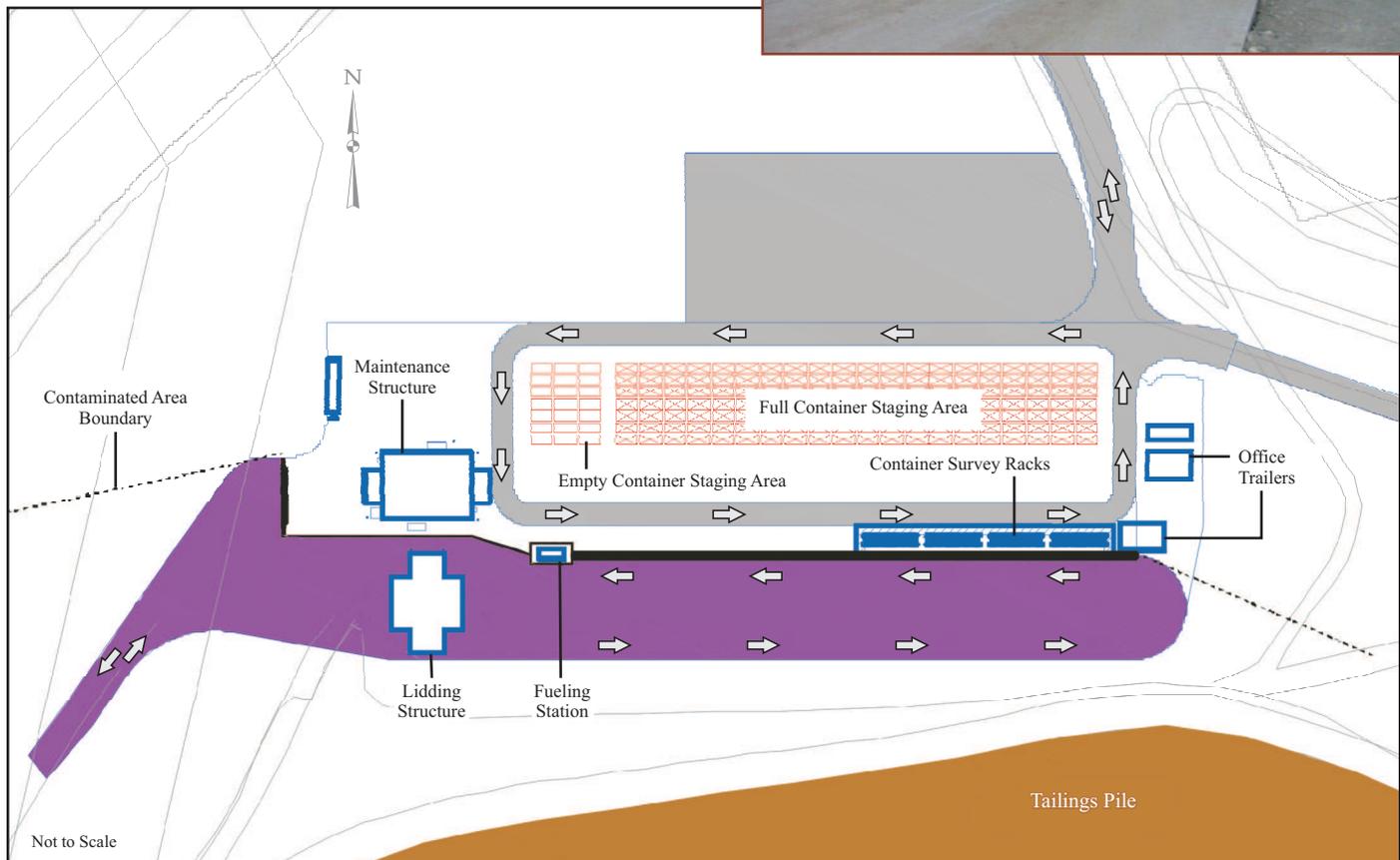
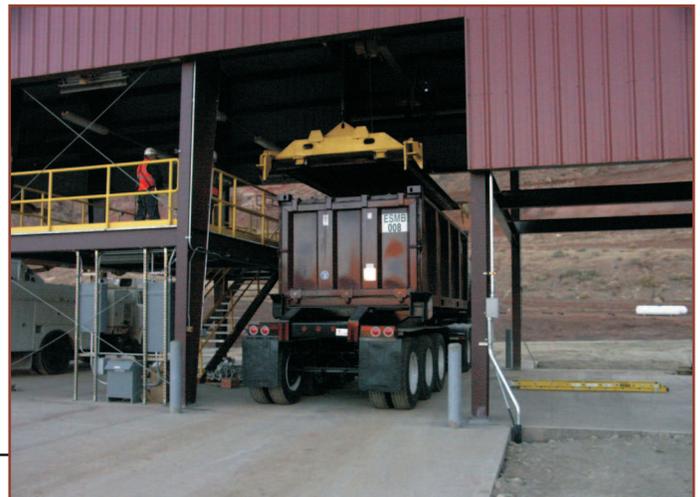


Figure 1. Moab site Support Area.

## Material-Handling Infrastructure and Processes (continued from page 6)



A reach stacker lifts up a container.



This is an example of a container placard.

placed on a separate truck for transport to the rail load out area. Alternatively, the container may instead be placed in a controlled staging area to await transport if it is not needed for shipment at that time.

The U.S. DOT issued DOE a special permit that dictates the requirements for packaging, hazard communication, and container-specific radioactivity determinations for transporting the Moab uranium mill tailings. In accordance with the special permit, each container will be identified with a unique number and will be placarded on two sides with U.S. DOT Class 7 signs. The placards will remain visible during transport to and from the Crescent Junction site. In addition, each container will be permanently marked with information about the contents of the container, the gross weight, and an emergency contact number.

### Tailings Conditioning

Beginning in mid-February, the Remedial Action Contractor began digging into the northwest corner of the tailings pile so that the excavated materials can be "conditioned" for disposal. As we reported in the August 2008 edition of the *Tailings Times*, the tailings vary in consistency. The wet materials inside the pile will be air-dried and mixed with the drier materials on the top and sides of the pile to optimize the moisture content for disposal. The project calls this "conditioning" the tailings. Several climatic factors, such as temperature, humidity, wind speed, the sun's angle, and the amount of daylight affect the time it takes to reach the optimum moisture content. To facilitate the drying process, the Remedial Action Contractor is laying out 1-foot-thick layers of excavated tailings in designated sections on top of the pile called drying beds. Common farm implements, such as a disk, turn over the tailings to blend the various material consistencies. 

chute is mounted on a steel platform so that it can be moved to different sections of the pile as the excavation progresses. Pieces of the chute were fabricated in Price, Utah, and because of their size and combined weight of 44.5 tons, the pieces were assembled at the Moab site. The bottom of the chute opening is 11 feet high to accommodate the height of the truck carrying a container.

### Container Preparation

The truck will proceed to the lidding structure in the Support Area where the filled container will receive a lid, and then continue to a location where a reach stacker (a mobile crane specifically designed to lift intermodal containers) will remove the container and place it on a survey rack. A radiological scan is then performed to ensure that there is no exterior contamination. Once cleared, the container will be

## Moab Site Improvements

Not all of the work being performed at the Moab site is in preparation for moving the tailings. Several activities have been conducted to improve other aspects of the site.

### Moab Wash Realignment

Last fall, a 1,750-foot long section of Moab Wash near the Moab site Support Area was relocated to reduce the potential for release of uranium mill tailings from the site. The site is bisected by this intermittent stream, which traverses 4,525 feet of the site before emptying into the Colorado River. Water flows in the wash only after significant precipitation, which occurs only a few times per year.

The realignment project was to relocate the stream away from the tailings pile and widen the channel to increase the flow capacity. Widening the channel to 115 feet reduces the flow velocity and thus the water's erosive power. The realigned portion of the channel is designed to contain a 25-year flood event within the stream banks and control a 100-year flood within the site boundary. A 25-year flood event has a flow rate of about 2,000 cubic feet per second, which is about the same flow as the Colorado River at low stage. The U.S. Army Corps of Engineers and the Utah Division of

Water Rights Stream Alteration Program approved the realignment design. As the existing wash was realigned, contaminated areas under it were remediated, amounting to about 9,200 cubic yards of material. The contaminated soil was placed on top of the tailings pile.

The Moab Project collaborated with Pennington Seed Inc., based in Georgia, to install a 300-foot-long test section of nylon erosion control matting and to spray a mix of seed and mulch on the south channel bank. "The Moab Project was approached by Pennington Seed to install a demonstration plot at the Moab site at no cost to the project. If it is successful, the company can then market its product to other organizations with a similar climate and geography," said Ed Baker, Environmental Compliance and Permits Manager for the Remedial Action Contractor. The seed mixture was selected for its sustainability in Moab's semi-arid climate. In addition to grasses, some native forbs and shrubs were included for vegetative cover and to enhance soil stabilization and dust control. The matting is expected to last 10 years. Pennington installed a separate erosion control test plot on a 1/3-acre area of disturbed soil adjacent to the wash.

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*A test plot of erosion control products and native grass, forbs, and shrubs was hydro-seeded on a portion of the disturbed soil adjacent to Moab Wash.*



*The erosion matting in the foreground is made of natural fiber and polypropylene and the adjacent, blacker matting is made of nylon.*

## Moab Site Improvements (continued from page 8)

The remainder of the banks was lined with natural fiber and polypropylene matting that is designed to last 3 to 4 years to provide sufficient erosion control until vegetation is established. The seed mix used on these remaining bank areas includes a more extensive set of native species. The two treatments for plant establishment and erosion control will be evaluated over time for possible use in other disturbed areas at the site.

### Landscaping

Last November, the landscaping at the Moab site was enhanced with the addition of more than 220 trees, shrubs, and plants. Fremont cottonwood trees were planted along the north side of the office complex to provide a screen from U.S. Highway 191. Piñon pines were planted along the south side of State Route 279 to screen motorists' view of the maintenance and lidding structures in the Support Area. Mormon tea, rabbitbrush, and three-leaf sumac shrubs, and grasses and flowering plants were placed along the east side of the entrance road to the site.

The plant species were selected because of their ability to thrive in this climate. "This additional landscaping is part of the commitment we made to the county in our Conditional Use Permit application to improve the aesthetics of the site from public vantage points," said Ed.



*Fremont cottonwood trees were planted along the north side of the office trailers.*

### Lighting

Another commitment in the Conditional Use Permit addresses lighting at the site. In accordance with county ordinance, the lights near or on office trailers are shielded and lights in the parking lot, site entrance, and Support Area are directed downward instead of being broadcast lights. The lights are on timers to minimize the affect on residents, visitors, and night skies. As a cost-savings measure, the original lighting plan for the hillside load out area that included permanent fixtures has been modified. Portable lights, to be used only for emergencies and during occasional work performed after dark, are being procured for this area and on the tailings pile. These lights also will be directed downward. 🌊

## Crescent Junction Disposal Cell Ready to Receive Tailings

Excavation of the westernmost section of the disposal cell at Crescent Junction was completed in December 2008 and this 40-acre portion is ready to receive tailings from the Moab site.

The material was excavated to a depth of 25 feet below the ground surface. The floor of the cell is nearly flat and slopes nominally to the south to facilitate drainage. The surface of the floor was adjusted to within one-tenth of a foot of the design elevation to facilitate accurate determinations of the tailings volume being placed in it. Additional sections of the cell will be excavated eastward from this initial portion.

As containers filled with tailings arrive at the Crescent Junction site, they will be off-loaded to six-wheel drive, 40-ton articulated trucks. The trucks will use a ramp to enter the excavated portion of the cell and end-dump the container contents. Placement will commence in the southwest corner of the cell floor, proceed north, and then east. Dozers using a computer aided earthmoving system (CAES) designed by Caterpillar will spread and compact the material in lifts per the specifications. Quality control personnel will perform required testing and verification.



*Excavation of the disposal cell was completed in December 2008.*

The objective of material placement in the disposal cell will be to minimize subsequent settlement by compacting compressible materials and filling voids within and around incompressible materials (e.g., debris). The CAES can be used to monitor compaction and slope placement in real-time using global positioning system-based technology that provides continuous logs of compaction operations. This system has been successfully used in various waste disposal sites around the country since 2004 and allows machine operators to follow design plans accurately, without the use of traditional survey stakes and crews.

An interim cover will be placed on sections of the tailings as they reach the final design thickness of about 45 feet. This cover material will be placed with a dozer equipped with the CAES. The equipment will push the interim cover material ahead of it so that the equipment will not become contaminated nor cross-contaminate the interim cover layer. This interim layer is uncontaminated and acts as an erosion protection layer while minimizing worker exposure to the tailings. The final cover placement for the initial cell portion will follow the interim cover placement.

### Land Withdrawal

DOE applied for a 20-year renewal of 936 acres of land it currently holds in temporary withdrawal and for the transfer of jurisdiction of this land from the U.S. Department of the Interior (DOI) to DOE. A *Federal Register* notice describing the application was published on September 22, 2008, and the public comment period ended December 22, 2008. No comments were received on the application, which is now pending DOI approval. This land would be used for support facilities associated with the disposal cell operation. The remaining 864 acres that DOE has in temporary withdrawal would be returned to public domain. In addition, DOI permanently transferred 500 acres to DOE in March 2008 for the disposal cell and surrounding area. 

## DOE Staff Member Joel Berwick Receives Promotion

The DOE Office of Environmental Management in Grand Junction, Colorado, would like to congratulate Joel Berwick for his recent promotion to Deputy Federal Project Director for the Moab Project. "Joel has the knowledge and skills to direct project teams and to ensure that all of the aspects of the project plan are properly executed," said Donald Metzler, Moab Federal Project Director.



*Joel Berwick stands on the hillside overlooking the tailings pile and Support Area.*

Last fall, Joel passed the Project Management Institute's Project Management Professional (PMP) examination. The PMP exam is arduous and the 200 questions evaluate the applicant's knowledge of all phases of project management, from initiation through planning, execution, monitoring and controlling, to closeout. One of the prequalifications to taking the exam is to have 4,500 hours of experience

leading and directing project tasks.

Joel's successful completion of the PMP exam demonstrates his qualifications as a project manager. This is directly applicable to his new role as well as his continuing role as the Contracting Officer's Representative for the Remedial Action Contractor on the Moab Project. Joel's achievement is consistent with DOE's professional development

goal to have its entire project management staff trained and certified as PMPs.

Joel has worked on the Moab Project since the former millsite came under DOE ownership in 2001. He lives in Moab and enjoys the many outdoor recreational opportunities the area has to offer. 

## Radon and You

Radon-222 is a colorless, odorless gas that is a radioactive decay product of radium-226, which is found in minute concentrations in almost all rock and soil. Radium-226 is also the main radiological constituent in uranium mill tailings at the Moab Project site. This is largely because its presence is often associated with uranium ore and the milling process removed uranium without removing the radium. Some Moab residents have expressed concerns about the level of radon coming from the tailings pile and if the level has changed since excavation of the pile began in preparation for transporting the tailings to Crescent Junction for disposal.

### Radon Monitoring

Soon after assuming ownership of the Moab site in 2001, DOE began an environmental air monitoring program to establish baseline data that could be used to evaluate data trends as the project progressed.

DOE issues quarterly air monitoring reports that are available on our website and in the public reading room at the Grand County Library.

DOE operates 27 radon-222 monitoring stations; 13 on-site and 14 off-site. Two of the off-site locations were used to establish the natural background concentration. Background monitoring locations are sufficiently distant from the Moab site to be free from any affects or influences from potential site contaminants.

Excavation of the tailings pile began in March 2009 and the project installed additional radon monitors that operate 24 hours a day during the workweek to ensure worker protection near the excavation area and the drying beds. "Thus far, we have seen no discernable increase in radon concentrations," said Bill Craig, Radiological Control Manager for the Remedial Action Contractor.

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## Radon and You (continued from page 11)

Radon concentrations are greatest on the tailings pile, which is within the DOE site boundary. Radon dissipates quickly once it is released from the soil to the air. It is usually found in higher concentrations in samples collected during the winter when the air temperature is low. Although the DOE guideline for radon has been exceeded at on-site monitoring locations and at adjacent vacant land directly downgradient of the tailings pile, the guideline has not been exceeded at any of the off-site locations with public exposure.

### Exposure Pathway

Inhalation is the main route of entry into the body for radon and its decay products. Because the radon gas is largely exhaled (i.e., not taken into the blood through respiration), most of the radiation dose comes from radon's short-lived decay products (radon daughters) that attach to dust particles and aerosols in the air and are then deposited in the lungs, damaging the lung tissue.

### Protective Measures

DOE has implemented several measures to protect workers and the public from exposure to radon coming from the Moab site and has other mitigative actions that can be taken. The size of the open excavation area on top of the tailings pile was limited in consideration of the potential for radon release; however, if radon levels become too high, the excavation area will be reduced. If needed, existing interim cover material will be placed over the excavation area during non-working hours. Because radon readily dissolves in water, water is one of the primary measures used at the Moab site to control dust, and thus, control the

mechanism to transport radon. Water trucks will continue to be used to control dust and to ensure tailings laid out for conditioning do not become airborne. "Use of water is integral for controlling dust from the tailings pile," said Federal Project Director Donald Metzler.

Monitoring of workers in the Contaminated Area is also being conducted because these workers have the greatest potential for occupational exposure. Hours worked in this area will be reduced if elevated radon levels are reached.

Radon concentrations are expressed in picocuries per liter, which is not a measure of exposure (dose). Measurement of radon dose at external monitoring locations is difficult because it is based on duration of exposure, and no one is continuously exposed. Radon monitors are also affected by changes in climatic conditions, such as wind speed, temperature, and humidity. DOE monitors exposure to gamma radiation and has established an administrative control level for the Moab site of 700 millirem (mrem) per year, which is less than 15 percent of the federal occupational exposure limit of 5,000 mrem per year. Some of the employees working in the Contaminated Area are wearing electronic alarming dosimeters that measure real-time whole body gamma exposure. No employee exposure to date has come close to exceeding the Moab site limit.

Results in our monitoring reports show that there is limited public exposure from Moab Project activities. DOE will remain vigilant in its protection of workers and the public as the excavation of the tailings pile continues. 

## Coordination Efforts With Local Emergency Responders

Over the past several years, the Moab Project has been coordinating emergency response efforts with local agencies in Grand County to ensure safe and timely responses to emergencies that may occur as a result of project activities. As we prepare to begin transporting the uranium mill tailings to Crescent Junction, we have ramped up our coordination and formalized response processes.

DOE prepared an Emergency Response Plan that addresses contingency planning, personnel responsibilities, reporting requirements, site evacuation procedures, equipment and training needs, and response action plans for various types of emergencies, including transportation incidents. DOE also developed a Transportation Plan that describes the operations to ensure safe and successful staging and transportation of the mill tailings in compliance with applicable federal, state, and local requirements. Feedback on these plans was requested from local emergency response organizations and other key stakeholders who may be involved in the tailings transportation.

DOE and contractor representatives participate on the Local Emergency Planning Committee (LEPC) and have presented Moab Project briefings and discussed the hazards and risks at the Moab site at committee meetings. DOE also provided a site visit to emergency services personnel to show them access points, haul routes, and personal protective equipment.

DOE has offered training to emergency responders and the Utah DOT that is geared toward hazards they may encounter at the site. DOE and contractor representatives met with Allen Memorial Hospital personnel to discuss protocol for treating injury victims who may arrive at the hospital with contamination on them. DOE and the hospital signed a Memorandum



*Grand County emergency medical services personnel participated in mock drill at the Moab site in September 2008.*

of Understanding (MOU) that delineates the responsibilities of each organization during an emergency. MOUs have also been executed or are in process with several other emergency response organizations.

To practice our response procedures, DOE has conducted two emergency drills since last fall that were progressively more complicated. These drills were coordinated with local emergency responders and lessons learned were developed following each one to improve the response in the event of an actual emergency. "We value the relationships we have with the emergency responders," said Art Murphy, DOE Moab Project Health and Safety Manager. "We all have the same desire to be prepared for any type of emergency and to mitigate the negative impacts if one occurs." A third drill will be conducted later this spring after tailings shipments have begun. 



## How Do I Get Information About the Project?

For more information about the Moab UMTRA Project, contact  
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You may also call our toll-free hotline at 1-800-637-4575 or send us an email at [moabcomments@gjem.doe.gov](mailto:moabcomments@gjem.doe.gov). Moab UMTRA Project documents are available on the DOE website at <http://gjem.energy.gov/moab> and at the following public reading room location:

**Grand County Library**  
257 East Center Street  
Moab, Utah  
(435) 259-5421

**Library hours:**  
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