



**U.S. Department of Energy**  
200 Grand Avenue, Suite 500  
Grand Junction, CO 81501

July 27, 2017

MOAB-00067-17

Ms. Jaylyn Hawks, Chair  
Grand County Council  
125 East Center Street  
Moab, Utah 84532

**SUBJECT: GRAND COUNTY CONDITIONAL USE PERMIT (CUP) RESOLUTION,  
RESUBMITTAL OF ANNUAL STATEMENT OF CONTINUED COMPLIANCE  
REGARDING THE U.S. DEPARTMENT OF ENERGY (DOE) MOAB URANIUM MILL  
TAILINGS REMEDIAL ACTION (UMTRA) PROJECT**

Dear Ms. Hawks,

Enclosed is a revised 2017 Annual Statement of Continued Compliance. The draft document was revised following discussions with the Moab Tailings Project Steering Committee on July 25, 2017.

If you have any questions regarding the Annual Statement, please contact me at 970-257-2115 or Wendee Ryan of my contractor staff at 970-257-2145.

If you have any questions, please contact me at 970-257-2115.

Sincerely,

A handwritten signature in red ink that reads "Ellen Mattlin".

Ellen Mattlin  
Acting Federal Project Director  
Moab UMTRA Project

Enclosure

cc w/enclosure:  
John Sattler, EMCBC  
Ed Skintik, EMCBC  
Lee Shenton, Grand County  
Joe Ritchey, TAC  
Wendee Ryan, TAC  
Matt Udovitsch, TAC  
Project File MOA 5.4 (Cindy Smith)

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**Grand County**  
**Annual Statement of Continued Compliance**  
**July 19, 2016 – July 18, 2017**

**I. Per requirements of the Grand County Conditional Use Permit (CUP), Resolution #2006-2741, DOE submits this Annual Statement of Continued Compliance. The following is specific information requested in item #17 of the resolution:**

**a. Summary of work completed by the Moab Uranium Mill Tailings Remedial Action Project (Project) pursuant to the approved CUP in the past 12 months:**

**Project Accomplishments**

Through July 1, 2017, the Project shipped approximately 454,300 tons this past year. To date, the Project has shipped 8,709,000 tons, or roughly 54 percent of the total estimated 16 million tons to be moved.

Due to continued corrosion on the inside of container sidewalls from the tailings material, a coating was sprayed inside containers to minimize further corrosion. During the past year, the inside of 150 containers was sprayed. In addition, 22 new containers were purchased to supplement the current inventory.

The Project purchased five new reach stackers with expected delivery by this October. The reach stackers are used at both sites to transfer containers to and from haul trucks at the Moab site and to and from the train to haul trucks at the Crescent Junction site. The existing reach stackers are no longer manufactured and therefore replacement parts are more difficult to obtain. The disposition of these reach stackers is being evaluated.

**Moab**

Excavation, conditioning, loading, and unloading of tailings were performed throughout the year. The Project also continued shipping two trains per week. In July 2017, the number of containers per train was increased from 136 to 140. For about 6 months of this reporting period, roughly eight to 10 containers per trainload were being filled with a mixture of concrete debris and mill tailings. Shipment of debris was suspended in January 2017 until issues regarding design specifications can be resolved.

A number of facility maintenance and upgrade activities were performed, such as upgrades to the electrical substation and to the Atlas building electrical and fire alarm systems, Atlas roof repairs, and cleanout of the freshwater pond.

In the past year, staff performed radiological surveys on two properties in Moab (vicinity properties) to determine if radiological material above the U.S. Environmental Protection Agency standards was present. During this compliance period, remedial action was not performed on any vicinity properties.

More than 8.9 million gallons of ground water, which included 24,500 pounds of ammonia and 220 pounds of uranium, were extracted during the past 12 months through the interim action ground water system. The extraction system was shut down from

mid-November 2016 through early March 2017 because there is minimal evaporation during the winter months and the current storage capacity is limited.

Almost 10 million gallons of freshwater were injected to create a hydraulic barrier. Freshwater injection operations were shut down for the winter from mid-December 2016 until mid-January 2017 and were temporarily suspended from late February to early April 2017 for cleanout of the freshwater pond, which facilitates removal of Colorado River sediment prior to Project use of the water. Injection operations were suspended beginning in early May through the remainder of the reporting period due to the high river flow.

### **Crescent Junction**

Placement and compaction of tailings in the disposal cell continued throughout this compliance period. About 28,000 cubic yards of interim cover were placed last summer, covering about 8 acres of tailings that had reached final grade.

This spring, about 500,000 cubic yards of material was excavated from another portion of Phase 3 of the disposal cell at Crescent Junction. The excavated material was placed on the spoils embankment (wedge) north of the cell to protect the cell from storm water runoff.

**b. Number of workers employed on site in the past year and projection for the coming year:**

As of July 1, 2017, the Project had 85 employees associated with the Remedial Action Contractor and 26 with the Technical Assistance Contractor. No large fluctuations in contractor Project staff are projected for the coming year. Four DOE positions were vacated during the reporting period. Efforts are being made to fill those vacancies, several of which were affected by the federal hiring freeze in place at the beginning of 2017.

**c. The work plan for the coming 12 months including any modifications, additions and deletions:**

The Project plans to continue excavating, conditioning, and shipping two trains per week of tailings through the end of this fiscal year (FY) (i.e., September 30, 2017). The shipping schedule through July 2018 will depend on the funding authorized for FY18, but two trains per week are anticipated.

The Project is evaluating the need to replace heavy equipment, including containers, haul trucks, and earth-moving machines, as well as perform infrastructure maintenance.

Operation of the interim ground water remedial action system will continue, including ground water extraction, freshwater injection, and surface water diversion (when necessary), along with monitoring of the system.

Radiological surveys of properties in the Moab area will continue as needed. Remediation of one vicinity property may occur next year.

Placement of tailings 2 days per week will continue at the Crescent Junction site. The Project plans to place interim cover on a portion of the tailings that has reached final design elevation in the disposal cell. Repair of haul road pavement in FY18 is being evaluated.

Modifications to the CUP: In 2006, hedgerows of cottonwood trees were planted along U.S. Highway 191 and along the Project office trailers with the intent of providing a visual barrier between Project operations and highway travelers. The hedgerow along U.S. Highway 191 requires consistent watering for continued growth and has not provided the intended visual barrier. The Project is evaluating the aesthetic benefits versus current site efforts to focus on vegetation that is sustainable and conserves water. Following this evaluation, the Project will consider options for the hedgerow along the highway. The hedgerow along the office trailers does provide a modest visual barrier and will be maintained.

**d. Air and water quality monitoring reports and support materials sufficient to inform the public regarding any health risks associated with the Project:**

The Project prepares an Annual Site Environmental Report to inform the public of the environmental site conditions, document compliance with environmental standards and requirements, and highlight significant programs and efforts. A comprehensive network of over 100 ground water wells and surface water monitoring locations and 36 air monitoring stations are situated on and off the Project sites. Ground water and surface water monitoring reports, quarterly air monitoring data reports, and the Annual Site Environmental Reports are readily available on the Project website at [www.gjem.energy.gov/moab](http://www.gjem.energy.gov/moab). In addition, copies are maintained in the public reading room at the Grand County Library and key stakeholders are notified of their availability on the Project website.

**Air**—The Project monitors public exposure to airborne contaminants, including direct gamma radiation, radon, and airborne radioparticulates, that are directly attributable to the uranium mill tailings and other contaminated materials from the Moab and Crescent Junction sites. Monitoring locations are shown on maps included in the quarterly air monitoring reports. Public exposure to direct gamma radiation, radon, and radioparticulates from the Project sites did not exceed DOE public dose limits during this reporting period.

**Employee Radiological Monitoring**—The Project conducts a separate employee radiological monitoring program. Employees who routinely enter the Contamination Area represent the highest potentially exposed individuals and are monitored for their radiation exposure, known as total effective dose, from gamma radiation, radon, and radioparticulates. DOE has a total effective dose limit of 5,000 millirems per year (mrem/yr) and an administrative control level of 2,000 mrem/yr. The Project sets its own goal and ensures engineering and administrative controls are in place to maintain employee radiological dose as low as reasonably achievable (ALARA). Radiation exposure results to date indicate that the Project has adequately protected its workers from radiological hazards by keeping the total effective dose well below the DOE administrative control level.

**Water**—Active ground water remediation is conducted to protect potential suitable habitat areas adjacent to the site, and to remove ammonia and uranium mass from the ground water system. In addition to extraction of contaminated ground water through eight wells located close to the tailings pile, freshwater (diverted river water) was injected through wells near the river as an additional way of minimizing the discharge of ammonia to the river. Surface water diversion was not necessary last summer because the side channel adjacent to the well field did not become a suitable habitat for endangered fish species. Water quality of the river was monitored periodically; results of monitoring downstream showed no effect by the site on water quality.

**II. Below are DOE's responses to questions Grand County has asked to be included in this report:**

1. *How will the Project use the nearly \$3 million "plus-up" to their FY17 allocation? Will this alter the projected completion date for the project?*

The Project plans to purchase additional new shipping containers to replace ones that are beyond repair and is evaluating purchasing other new equipment or vehicles with the FY17 funding. Although the additional funding in FY17 can be used effectively on the Project in the near term, it is not enough to alter the projected Project completion date.

2. *The Project has had four different Federal Project Directors (FPDs) in the first five months of calendar 2017. Does EMCBC have a plan to maintain consistent management of the Project?*

An Acting FPD is currently on at least a 120-day detail to the Project from another DOE site. In addition, the Acting Deputy FPD and Acting Facility Representative, both from EMCBC, have been involved with the Project for almost 10 years. EMCBC plans to continue to provide management support to the Project until the FPD and other open federal positions are filled. The Deputy FPD position was posted on [usajobs.gov](http://usajobs.gov) in June and the FPD position will be posted on this same website.

3. *What is the current plan for shipping mill debris to Crescent Junction? How much of the debris will be shipped by truck via US-191?*

As mentioned previously, small quantities of mixed debris were being shipped to the cell; progress is being made to resolve issues regarding design specifications. The Project has been trying various methods to size the debris at the Moab site prior to shipping it in containers to avoid putting haul trucks on U.S. Highway 191. It is not known at this time how much of the debris will be shipped by truck; however, no truck shipments are planned in the near term.

4. *Is any further work planned in the next year on vicinity properties?*

Additional characterization is planned for the one remaining vicinity property included in the program. Remediation of this property is not currently scheduled; however, the owner is interested in having the cleanup completed by next spring. Future vicinity property surveys will be performed as requested by landowners to determine possible presence of residual radioactive material.