### Moab UMTRA EM Project(s) Baseline Summary July 2008

### BACKGROUND

The U.S. Department of Energy (DOE) Moab Uranium Mill Tailings Remedial Action (UMTRA) Project site is approximately three miles northwest of the city of Moab in Grand County, Utah, and includes the former Atlas uranium-ore processing facility. The site is situated on the west bank of the Colorado River at the confluence with Moab Wash. The site encompasses approximately 439 acres, of which approximately 130 acres are covered by the uranium mill-tailings pile. When processing operations ceased in 1984, approximately 16 million tons of uranium tailings and contaminated soil were left on the property.

In October 2000, Congress and the President approved the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Public Law 106-398 (the Act). The Act stipulated that the license issued by the U.S. Nuclear Regulatory Commission (NRC) for the materials at the Moab site be terminated and that title and responsibility for cleanup be transferred to the DOE. Title of the site was transferred to DOE on October 25, 2001. Specifically, the DOE Environmental Management (EM) office in Grand Junction, Colorado, now has primary responsibility for the Moab site.

The Act further designated that the Moab site undergo remediation in accordance with Title I of the Uranium Tailings Radiation Control Act (UMTRCA) of 1978 (Public Law 95-604). In order to comply with the Act, DOE will need to perform remediation in compliance with Environmental Protection Agency (EPA) Standards and Title 40 Code of Federal Regulations (CFR) Part 102 in the state of Utah.

The DOE EM office in Grand Junction, Colorado, issued the final Environmental Impact Statement (EIS) in July 2005. The final EIS included the preferred alternatives for remediation of the Moab Project site. The Record of Decision (ROD) was issued in September 2005. The ROD details the selected alternatives of active ground-water remediation at the Moab site and off-site disposal of the tailings pile and other contaminated materials at Crescent Junction, Utah. This off-site disposal will remove the contaminated mill tailings and relocate them to Crescent Junction, which is more than 30 miles from the Colorado River. Approval of Critical Decision – 1A (CD-1A), approval of the selected alternative identifying relocation of the Moab tailings and contaminated materials to the Crescent Junction site, was received on August 5, 2005.

CD-1B/3A was approved on May 15, 2006, and approved both the preliminary cost range and procurement of long-lead infrastructure activities. Remediation of the Moab UMTRA Project site now requires the approval of CD-2/3 in accordance with DOE Order 413.3A. Approval is scheduled for July 2008.

### SCOPE DESCRIPTION

On June 20, 2007, the DOE Environmental Management Consolidated Business Center (EMCBC) awarded a task order to National Indefinite Delivery/Indefinite Quality contract to

Energy*Solutions* for the Remedial Action Contract (RAC) and the Technical Assistance Contract (TAC) to S&K Aerospace, Inc., for the Moab UMTRA Project. The DOE National Indefinite Delivery/Indefinite Quantity contract extends through September 2011. Energy*Solutions* (RAC) will finalize the design for relocation of the tailings to a permanent disposal site at Crescent Junction, Utah, develop the tailings-removal system, build the disposal cell, begin transport of the tailings, and handle day-to-day maintenance and operations. To perform this scope of work, Energy*Solutions* teamed with Jacobs Engineering Group, Inc., for engineering design; Envirocon, Inc., for construction activities associated with removal of the tailings pile; and Neilson Construction, Inc., for infrastructure construction support.

S&K Aerospace, Inc., (TAC) will provide technical and administrative support services to DOE, which includes information technology and telecommunications, public management, training, information technology, document support, project integration, interim ground-water remediation, vicinity property surveys, and oversight for RAC functions. S&K Aerospace, Inc., is a teaming partner on this contract with Pro2Serve, a technical and engineering services company.

The end state for the Moab Project will be achieved after contaminated soil, tailings, vicinity properties, and surface and ground water are remediated. DOE may place some restrictions on re-utilization of the site, depending on how a proposed land use could impact the selected ground-water remedy. The site will then be transferred to the Office of Legacy Management for monitoring and required stewardship. Based on the current funding profile and project technical approach, the current estimate of completion date is 2028.

# **PROJECT MANAGEMENT**

Based on the direction from EM Headquarters, the Moab UMTRA Project office developed the near-term baseline for the project. The project baseline has undergone an independent review to verify the reasonableness of the scope, cost, and schedule. The near-term baseline reflects the identified scope that can reasonably be accomplished for the identified cost in the identified time period if the near-term baseline is funded as profiled and contingency funds are provided as required during project execution. It also establishes the baseline as an acceptable point from which to track and control future change. The review and approval process accommodates the likely changes in the EM complex, site priorities and funding plans. These changes could affect both near-term (within the next five years) and lifecycle cost, schedule and scope. Such future changes may be required to comply with applicable environmental legal obligations while maintaining essential functions necessary to protect human health, the environment and national security; reflect funding different from the baseline assumptions; incorporate technological advances; realize specific programmatic risks; or implement programmatic business cases. Because the cleanup extends beyond the near-term, out-year planning estimates (ranges) have also been developed and independently reviewed.

# LIST OF PROJECTS

The Moab UMTRA EM Project only consists of one project. The Near-Term Baseline (NTB) is from FY 2008 to FY 2012 and the Out Year Planning Estimate Range (OPER) is from FY 2013 to FY 2028. Approval is scheduled for June 2008.

### PROJECT SCOPE

The Moab UMTRA Project Remedial Action Contractor scope of work includes:

- Completion of the Final Remedial Action Plan (RAP) and obtaining NRC approval.
- Determining the method or design, constructing and/or installing, and operating the waste-management and waste handling system for removing and shipping RRM and other waste for disposal at Crescent Junction.
- Excavating 16 million tons of residual-radioactive material (RRM) from designated areas at the Moab site and shipping the RRM as required by the ROD to Crescent Junction.
- Excavating a disposal cell at Crescent Junction in accordance with the NRC-approved RAP.
- Installing the disposal-cell cover, as approved by the NRC, in a manner that minimizes the amount of RRM exposed.

The Moab UMTRA Project Technical Assistance Contractor scope of work includes:

- Supporting DOE in project safety and health, quality assurance, and security.
- Providing the project IT/Telecommunications infrastructure.
- Records management.
- All project training (except for certain activities covered in the RAC contract).
- Supporting DOE in interfacing with the public.
- Maintaining a real and personal property-management program.
- Documentation production support.
- Project planning and financial integration.
- Change-control administration.
- Performing vicinity property inclusion surveys.
- Operating and maintaining the interim ground-water action.
- Maintaining re-vegetation within the Moab site boundary outside of the contaminated areas.

# **PROJECT COST**

Moab has one project baseline summary (PBS), CBC-MOAB-0031. The numbers are in current dollars.

	Project Number
Cost Element	
	CBC-MOAB-0031
1. Prior Year Costs	\$38.2
(FY 2002 – FY 2006)	
2. Total Near-Term Baseline	\$188.6
(50% Confidence Level)	
3. Unfunded Contingency	\$7.1
4. Performance Baseline	\$195.7
(80% Confidence Level)	
5. Out Year Planning Estimate	\$773 - \$809
Range	
6. Total Life Cycle Cost	\$1,043

<sup>(</sup>dollars in millions)

# SUMMARY LIFECYCLE BASELINE SCHEDULE

The critical path schedule shown in is planned in detail for the FY07 to FY12 time frame. A summary schedule for the completion of the project in FY28 is also included.

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ES0560 DOE	DOE Approval of Final FA.P	•	0	29FEB08	ODCE Approval of Final RAP
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ES0595 DOE	DOE Approval of CJ Operational Mgmt Assessment	12	12 13FEB09	03MAF09	ADDE Approval of CJ Operational Mgmt Assessment
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ES0805 Rall	Rail Shipments of RRM to CJ	878	878 D4MARD9	20AUG12	
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Table 2. Moab Critical Path Schedule (continued on next page)

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# Table 3. Out-Year Schedule (2013-2028)