U.S. Department of Energy
Environmental Management
Consolidated Business Center
Moab UMTRA Project: Queue Waterline Extension
Categorical Exclusion Determination Form

Proposed Action Title: Moab Uranium Mill Tailings Remedial Action (UMTRA) Project: Queue Waterline Extension

Program or Field Office: Grand Junction Field Office

Location(s) (City/County/State): Moab, Utah

Proposed Action Description:

The proposed action is the construction, operation, and maintenance of a waterline extension, connecting the existing water supply source (freshwater pond located at northeastern area of the Moab site) to the Queue area (western operations area of the Moab Site; see Figure 1). The purpose of the Queue waterline extension is to improve operational efficiencies by upgrading piping, creating a storage pond, relocating the water truck load-out, and improving the rinse and decontamination system. The proposed action will involve the installation of pipes, valves, and other accessories necessary to deliver water to the Queue.

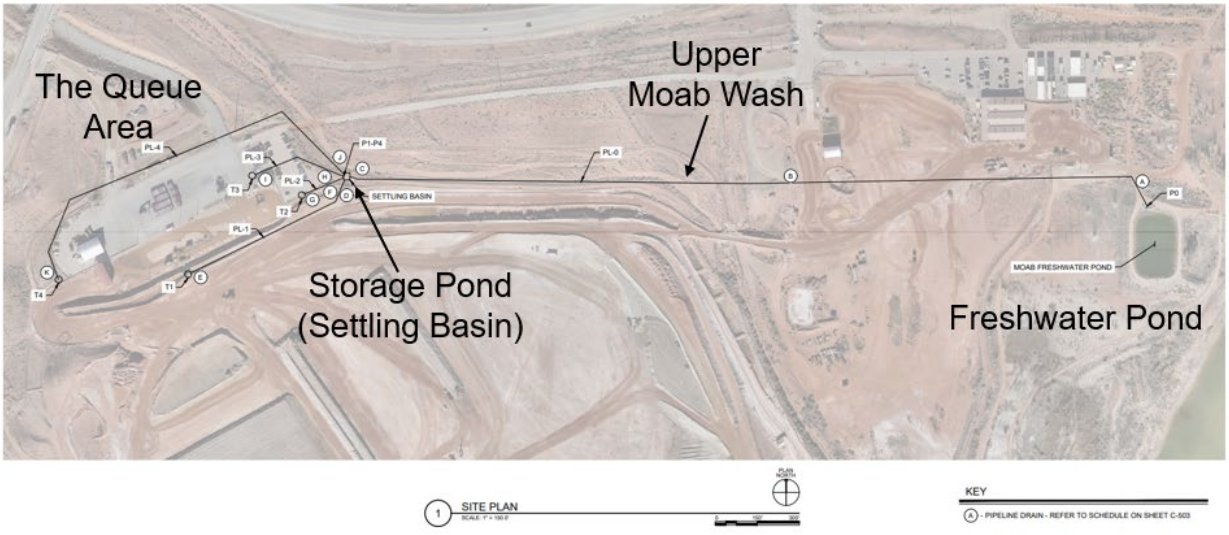

Figure 1. Queue Waterline Extension Project Proposed Action (black line indicates waterline)

Background:

The Moab UMTRA Project began moving the tailings pile from the Moab Site in 2009 to the permanent disposal cell in Crescent Junction (CJ), Utah. The estimated volume of the tailings pile was 16 million tons (with a bounding number of 20 million tons; Supplement Analysis, May 2022). As of Oct. 2022, over 13 million tons (approximately ~85%) of tailings have been moved. The shape of the tailings pile has changed significantly since removal operations first started.

As the Project is progressing and the footprint is changing, operations will be consolidated in the Queue area. Access to water supply for dust suppression, water storage, and decontamination of the containers used to transport tailings needs to be improved to meet operational demands.

Currently, Colorado River water is pumped into the freshwater pond (under State of Utah water right WR-01-40). The current water load-out station is located northwest of the freshwater pond.

The proposed waterline extension will be ~3000 ft in length from the freshwater pond to the Queue area which includes crossing 58 linear feet of the upper Moab Wash, an ephemeral stream. A "Joint Permit Application" is necessary, which satisfies both the U.S. Army Corps of Engineers and State of Utah requirements for a Section 404 permit of the Clean Water Act. All necessary permits will be finalized and approved by appropriate agencies prior to work commencing. A revegetation restoration plan, as part of the Joint Permit Application, was also submitted for this section of the waterline.

The proposed waterline extension will go from the current freshwater pond to a newly constructed storage pond at the Queue (Figure 1). Details of the storage pond include the following:

- Its main purpose is to store water, but also includes a sediment settling component (most of the sediment is settled out at the freshwater pond location).
- The size of the pond is approximately 18 ft x 20 ft (inside dimensions). Pond will be dug ~7-8 ft below ground level. Height will be 10 ft. (top of concrete to bottom of pond) with water depth of approximately 9 ft.
- The storage pond will be contained with concrete, which will be poured at approximately 10" thick and will be non-porous. A liner is not part of the design (note: original engineering design included Ultrablock™ concrete blocks with a liner, but freight costs were cost prohibitive).
- Vertical shaft and submersible pumps will then divert water from the pond to various other features in the Queue area (e.g., water truck load-out, rinse station, decon station, lidding building, Klein water porto-tower, etc. See Figure 1).

By relocating the water truck load-out station from near the freshwater pond to the Queue area, the distance the water trucks must travel to resupply on water will be greatly reduced. This benefit helps decrease greenhouse gas emissions.

The *Moab UMTRA Project Waterline Extension System* engineering drawings and specifications drafted by North Wind Portage, Inc. outline project specifications including General Notes,

Technical Specifications (i.e., pipe, valves, pumps, steel, etc.), Moab Wash Crossing instructions (compliant with Joint Application Permit), and Construction Quality Control. See Figure 1 above for site map of proposed action.

These upgrades of the proposed action will enhance operational efficiencies, reduce the overall Project footprint, and are also an excellent improvement for the Project.

Procedures:

- Integrated Work Plan Job Safety Analysis (IWP/JSA) 003 *Facility and Grounds Maintenance.*
- Environmental Aspects Checklist associated with IWP-003.
- Joint Permit Application (Section 404 permit for U.S. Army Corps of Engineers and State of Utah).
- Restoration Plan of the Joint Permit Application (focusing on revegetation plan within affected area of Moab Wash).
- *Moab UMTRA Project Waterline Extension System.* North Wind Portage, Inc. Engineering drawings and specifications. December 2022.
- *Moab UMTRA Health and Safety Plan* (DOE-EM/GJ1038).
- *Moab UMTRA Project Waste Management Plan* (DOE-EM/GJ1633).
- *Moab UMTRA Project Moab Fugitive Dust Control Plan* (DOE-EM/GJ2072).
- *Moab UMTRA Project Moab Stormwater Pollution Prevention Plan* (DOE-EM/GJRAC1475).
- *Moab UMTRA Project Excavation and Trenching Procedure* (DOE-EM/GJ1609).

Resource Areas Evaluated:

Soils

Soils have been impacted by mill operations starting in the 1950s and by ongoing Project construction and remediation activities. The planned work includes digging a narrow trench (as wide as equipment bucket), temporarily setting the spoils to the side of the trench, placing the high-density polyethylene (HDPE) pipe in the trench, then covering the pipe with the soil excavated from the trench.

The waterline will cross the Contaminated Area (CA) where soils are considered residual radioactive material (RRM). With the waterline extension project, RRM soil and equipment will not be transferred outside the CA. All RRM will be contained within the CA.

For the Moab Wash crossing, a revegetation restoration plan was submitted that includes reserving topsoil to be used for restoration efforts post-construction.

The Project will build the waterline in sections to reduce erosion. Erosion will be minimal since original elevations will be restored in post-construction activities.

No significant impacts to soil.

Air Quality

The waterline extension involves few pieces of equipment compared to other routine ongoing operations at the project. Emissions from equipment operation are related to work, but not in excess of normal equipment operation.

The *Moab UMTRA Project Moab Site Fugitive Dust Control Plan* will be followed to minimize fugitive dust and particulates during waterline construction. Air quality will also be monitored through the perimeter air monitoring stations and reported in the *Moab UMTRA Project Annual Site Environmental Report* (ASER).

No significant impacts to air quality will be associated with this project.

Surface Water

As mentioned previously, the proposed action will be crossing the Moab Wash, which requires a Section 404 permit. The Project worked with the U.S. Army Corps of Engineers to complete a Joint Permit Application to meet both federal and state requirements. This application has been completed and is awaiting final approval. Construction across the Moab Wash will be based on the weather forecast to avoid working during periods of precipitation to minimize environmental impacts. If flows or wetness in the stream channel is encountered, work will be stopped until channel is dry.

No increase in State of Utah water rights usage of the Colorado River is expected. The waterline upgrades will stay within the allotted amount of acre-feet per year based on State of Utah water rights permit (WR-01-40). Water usage will be tracked to confirm this.

The *Moab UMTRA Project Stormwater Pollution Prevention Plan* (SWPPP) will be followed, and Best Management Practices (BMPs) implemented.

No significant impacts to surface water will occur with this project.

Floodplains

According to Final Environmental Impact Statement (FEIS, Appendix F, Figure F-1), sections of the proposed action that cross the 100-year floodplain are located around the upper Moab Wash. This is accounted for in the Joint Permit Application, which includes an accompanying restoration plan for the floodplains surrounding the Moab Wash.

To ensure precipitation will not impact the project, extended weather forecasts and river flows will be monitored. Construction will occur during only dry periods.

No significant impacts to floodplains will occur with this project.

Terrestrial Ecology

The revegetation restoration plan (associated with the Joint Permit Application) may enhance vegetation and habitat for terrestrial ecology in the Moab Wash area. No significant impacts will

affect terrestrial ecology due to sparse vegetation, wildlife, and habitat in the area of the proposed action.

Cultural

A cultural inventory of the Moab Site was conducted, and no cultural resources were found in this area. The *Moab Project Cultural Management Plan* (GJO-2002-390-TAC; GJO-MOA 1.24) will be followed and work will be stopped if cultural resources are found. No significant impacts to cultural resources will occur during this project.

Noise and Vibration

Hearing conservation procedures will be followed for workers, as applicable during the work activities. No significant impacts from noise and vibration will be beyond normal Project construction.

Infrastructure and Resource Requirements

All infrastructure impacts are temporary and will last only as long as project construction and operations are ongoing.

Project infrastructure upgrades and resource requirements are covered in FEIS Section 2.1.1.1 and 2.2.1.1, *Site Preparation, Infrastructure Enhancement, and Controls/Water Pumping Station Enhancements*. The waterline would benefit resource requirements as the purpose of the project is improving operational and water usage efficiencies. No significant impacts to infrastructure and resource requirements will exist beyond necessary Project upgrades.

Waste Management

Waste from the proposed action will be minimal, mostly from HDPE pipe material, with no significant impacts beyond routine operations. HDPE sections will be fused together to create the ongoing pipe and reused as possible for other projects onsite. The *Moab UMTRA Project Waste Management Plan* will be followed. No significant impact in waste management from this project.

Human Health

Workers will be monitored under existing Moab UMTRA Project radiological and Health & Safety work plans and procedures. The public is not allowed onsite and is not at risk. No significant impact to human health from this project.

References

- *Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Final Environmental Impact Statement.* July 2005.
- *Record of Decision for the Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah.* 6450-01-P. Department of Energy.

- *Moab UMTRA Project Supplement Analysis for the Remediation of the Moab Uranium Mill Tailings, Grand and San Juan Counties, Utah, Final Environmental Impact Statement* (DOE/EIS-0355 SA-3).
- *Moab Project Cultural Management Plan* (GJO-2002-390-TAC; GJO-MOA 1.24).

Categorical Exclusion(s) Applied:

B5.4 Repair or replacement of pipelines

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

All questions were answered with a "concur," allowing the NEPA Compliance Officer (NCO) to document that the proposed project has been reviewed and a final NEPA determination will be concluded.

Concur: The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

Concur: There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

Concur: The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)) and is not precluded by 40 CFR 1506.1 or 10 CFR

1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer, I have determined that the proposed action fits within the specified classes of actions, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

5/18/2023

X Pete Yerace

Pete Yerace
DOE EMCBC NCO
Signed by: PETE YERACE