U.S. Department of Energy Office of Legacy Management
National Environmental Policy Act Environmental Checklist

Project/Activity: Remove a Permeable Reactive Barrier (PRB) Treatment System at the Durango, Colorado, Disposal Site

A. Brief Project/Activity Description

The U.S. Department of Energy (DOE) Office of Legacy Management proposes to remove all residual radioactive materials and structures associated with a permeable reactive barrier (PRB) treatment system on the Durango disposal site. The materials would be disposed of at the Grand Junction, Colorado, disposal site. The entire project is expected to take approximately 8 weeks; work would begin August 30 and be completed in early November. As many as 10 workers (including oversight personnel) would be needed to complete all actions. The attached figure shows site features.

The PRB treatment system covers approximately 0.5 acre and is adjacent to the evaporation pond and disposal cell in the northeast portion of the site. The treatment system consists of four below-ground treatment cells that extend to a depth of approximately 7 feet (ft) and contain steel wool, a combination of steel/copper wool, and granular iron; miscellaneous infrastructure; a liner; and soil and gravel materials. These materials have low-level radioactive contamination.

Prior to removal of the PRB system, selected portions of the existing site access roads would be surfaced with gravel and; an area near the entrance would be widened., and its curves would be softened. Most of the on-site access road is approximately 15 ft wide. In addition, an area that would be used for staging materials would be graded near the site entrance.

After these actions have been completed, the uncontaminated topsoil above the treatment system would be removed, scanned for contamination, and segregated for use in site reclamation. Next, the contaminated media and accessory materials would be removed and placed in Super Sacks rated to contain radioactive materials. The sacks are 6 ft high by 4 ft wide and 4 ft deep. After the sacks were full, the tops would be secured, and the sacks would be transported by truck to the staging area. It is expected that workers would fill 7 sacks each day, and between 190 and 222 sacks would be needed to hold all removed materials. DOE intends to stockpile approximately 65 Super Sacks in the staging area before beginning shipment to the Grand Junction disposal site.

A radiological control technician (RTC) would be on site during removal of the treatment system. After the treatment system is removed, the liner would be inspected for rips or tears and placed in the Super Sacks. If the liner has rips or tears, underlying soils would be removed until there is no evidence of contamination present. As a final precaution, soil samples would be sent to an analytical laboratory to determine radioactivity levels. If the soil samples indicated that residual radioactive materials were still present, DOE would complete additional removal actions at a later date.

A shipping contractor would be used to transport the Super Sacks to the disposal site in Grand Junction. It is expected that each truck could carry 4 Super Sacks; however, the final truck capacity would be determined by the subcontractor, who would need to comply with all highway shipping requirements. Loaded trucks would not travel over Red Mountain Pass. An RTC would be present at the Grand Junction disposal site to monitor disposal of the Super Sacks.

After all contaminated materials were removed, the segregated topsoil materials would be returned to the former treatment system area, and the area would be graded, sloped for drainage, and seeded with an appropriate seed mixture. The staging area would be similarly reclaimed.

B. Environmental Concerns

Evaluate the following elements and indicate by checking "yes" or "no" if any phase of the project/activity would result in a change or impact that is subject to regulatory permits, controls, or plans or that would require additional evaluation. If the "yes" column is checked, provide a brief explanation below, and attach sheets with additional detail as necessary or appropriate.

Element	Yes	No	Element	Yes	No
Air emissions/air quality	☒	☐	Exposure/impacts to public or workers	☒	☐
Noise	☐	☒	Need for public awareness/involvement	☐	☒
Solid waste generation	☒	☐	Transportation/traffic control required	☒	☐
Mixed waste management	☐	☒	Access to/use of DOE property	☐	☒
Chemical storage on site	☐	☒	Visual resources impacted	☐	☒
Pesticide/herbicide use	☐	☒	Cultural/archaeological resources present	☐	☒
Toxic substances management	☐	☒	Wetland/floodplain impacted	☐	☒
Regulated quantities of petroleum used or stored on site	☐	☒	Protected species present: federal, state, or tribe listed	☐	☒
Radioactive materials/soils	☒	☐	Migratory birds breeding or nesting	☐	☒
Surface (ground) disturbance	☒	☐	Wild/scenic rivers impacted	☐	☒
Surface water use/contamination	☐	☒	Prime/unique farmlands present	☐	☒
Surface water quality	☐	☒	Groundwater use/contamination	☐	☒
Groundwater quality affected	☐	☒	Other considerations	☐	☒

C. Explanation and Qualification of All "Yes" Responses

Air emissions/air quality: Water would be used to control fugitive dust, if necessary.

Solid Waste Generation: The treatment system materials would be transported to the Grand Junction disposal site. Miscellaneous trash related to site activities would be managed as solid waste and brought to an appropriate waste facility.

Radioactive materials/soils: All materials removed from the PRB treatment system are radioactive and would be handled in accordance with the requirements of the DOE Radiological Protection Program.

Surface (ground) disturbance: It is estimated that less than 1 acre would be disturbed as a result of removing the PRB treatment system, grading a staging area, and upgrading various sections of roads. All disturbed areas would be reclaimed once the proposed actions are concluded.

Exposure/impacts to public or workers: Removed materials would be scanned by an on-site RTC. If it is determined that personal protective equipment was necessary, workers would be required to dress accordingly.

Transportation/traffic control required: Traffic on County Roads 211 and 212 is light. Transporting the Super Sacks is expected to require 47 to 56 trucks trips (one-way) over 4 weeks.

D. Eligibility/Conditions

The proposed action fits within a class of actions listed in Appendix A or B to Subpart D of Title 10 *Code of Federal Regulations* Part 1021 (10 CFR 1021). DOE has determined that these classes of actions do not individually or cumulatively have a significant effect on the human environment (see 10 CFR 1021.410). There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposed action, and the proposed action is not "connected" to other actions with potentially significant impacts. Finally, the action is not related to other proposed actions with cumulatively significant impacts and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

E. Recommendation

The proposed action to remove all PRB materials and transport them to a licensed facility are excluded from further NEPA evaluation under Appendix B to Subpart D of Part 1020, B6.1, "Small-scale, short-term cleanup actions . . ., less than approximately 5 million dollars in cost and 5 years duration . . ." The associated road upgrade and final site reclamation are excluded from further NEPA evaluation under B1.3, "Routine maintenance activities . . ."

☒ Meets Criteria ☐ Does Not Meet Criteria ☐ Unsure

F. NEPA Determination

The scope of actions proposed under Section A of this Environmental Checklist, and the information relevant to the potential for environmental impacts in Section B have been reviewed, and the following has been determined:

☒ The proposed actions meet the criteria for categorical exclusion.

☐ The proposed actions do not meet the criteria for categorical exclusion; therefore, I recommend that the LM NEPA Planning Board be convened based on my recommendation (see attached rationale) to complete:

☐ an Interim Action. ☐ an Environmental Assessment.

☐ an Environmental Impact Statement. ☐ a Supplemental Analysis.

Concurrences

Project/Activity: Remove a Permeable Reactive Barrier (PRB) Treatment System at the Durango, Colorado, Disposal Site

LM Site Name Durango disposal site	**LM Site Program** Uranium Mill Tailings Remedial Action, Title I	
Contractor NEPA Coordinator Sandy Beranich	**Signature** Sandy Beranich	**Date** 8-19-2010
Contractor Site Lead Dave Miller	**Signature**	**Date** 8/23/2010
LM Site Manager Joe Desormeau	**Signature**	**Date** 8/23/10
LM NEPA Compliance Officer Tracy A. Ribeiro	**Signature** Tracy A. Ribeiro	**Date** 08/23/10

Distribution upon signature:

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D. Miller, Stoller Site Lead
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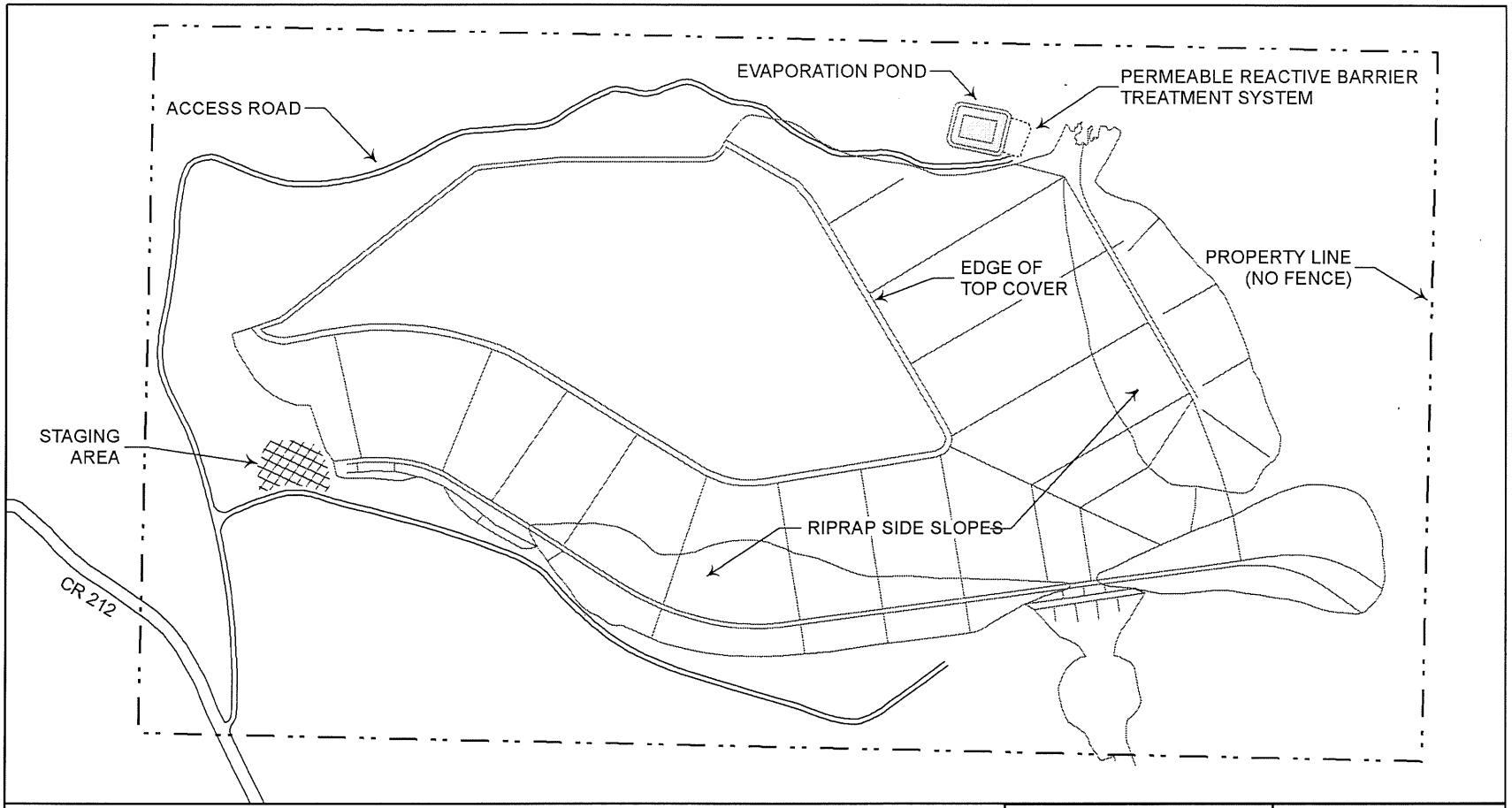
rc-grand.junction



LEGEND

- SITE BOUNDARY
- ROCK SIDE SLOPES
- ROAD EDGE
- STAGING AREA
- POND

N

SCALE IN FEET

400 200 0 400

U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by **S.M. Stoller Corporation** Under DOE Contract No. DE-AM01-07LM00060
Site Features Durango, CO, Disposal Site	
DATE PREPARED: August 12, 2010	FILENAME: S0691500

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