



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

DATE: April 21, 2017

MEMORANDUM

SUBJECT: Request for Approval for a Ceiling Increase in excess of \$6 Million to the September 29, 2011 Non-Time-Critical Removal Action Memorandum for the Northeast Church Rock Mine Site, McKinley County, New Mexico, Pinedale Chapter of the Navajo Nation

FROM: Enrique Manzanilla, Director
Superfund Division
U.S. EPA Region 9

THROUGH: James E. Woolford, Director
Office of Superfund Remediation and Technology Innovation

TO: Barry Breen, Acting Assistant Administrator
Office of Land and Emergency Response

I. PURPOSE

The purpose of this Action Memorandum amendment is to request and document approval for a ceiling increase to the Non-Time Critical Removal Action at the Northeast Church Rock Mine Site ("NECR Mine Site"). The original Action Memorandum is dated September 29, 2011. An exemption from the \$2 million statutory limit for a removal action was requested and approved in the original Action Memorandum (\$2,960,000). This amendment to the original Action Memorandum requests approval of a cost ceiling increase of \$7,728,000 for a total direct extramural project ceiling of \$10,688,000. This increase is attributed to the added costs for housing, additional oversight costs for construction, and a longer project timeline. The description of the removal action has not changed and can be seen in the original 2011 Action Memorandum (Attachment 1).

Pursuant to EPA delegation 14-2 the authority to approve a removal action ceiling greater than \$6 million and requiring an emergency waiver, obtained in the 2011 Non-Time Critical Removal Action, rests with the Assistant Administrator of the Office of Land and Emergency Management.

II. SITE CONDITIONS AND BACKGROUND

Site Name: Northeast Church Rock Mine
Site Status: Non-National Priorities List
Category of Removal: Non-Time-Critical

CERCLIS ID: NNN000906132

SITE ID: 09PM

Site Location: McKinley County, NM, Pinedale Chapter of the Navajo Nation

A. Site Description

1. Physical Location

The NECR Mine Site is situated approximately 16 miles northeast of Gallup, McKinley County, New Mexico at the termination of State Highway 566.

Refer to the original Action Memorandum for additional details.

2. Site Characteristics

Refer to the original Action Memorandum.

3. Removal Site Evaluation (“RSE”) and Supplemental RSE

Refer to the original Action Memorandum.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Refer to the original Action Memorandum.

5. National Priorities List Status

The NECR Mine Site is not on the NPL. In 2006, the Navajo Superfund Program conducted a pre-CERCLIS site screening of the NECR Mine Site (CERCLIS ID No. NNN000906132). The UNC Mill Site, where the NECR Mine waste will be disposed, ceased operations in 1982 and was listed on the NPL in 1983.

B. Other Actions to Date

The following description of the response activities completed since the approval of the original Action Memorandum supplements the Other Actions to Date section of the original Action Memorandum.

The original Action Memorandum was dated September 29, 2011 and selected disposal of the NECR mine waste at the nearby United Nuclear Corporation (“UNC”) Mill Site on private land in the State of New Mexico. The 2011 Action Memo explained that the cleanup was contingent upon two additional approvals. The first approval, an EPA Region 6 Record of Decision (“ROD”) for the UNC Mill Site to accept the NECR mine waste, was obtained on March 29, 2013 (Attachment 3). The second approval, upon

which the cleanup is contingent, is an amendment to the Nuclear Regulatory Commission (NRC) license of the UNC Mill Site which the licensee, United Nuclear Corporation (“UNC”), will request upon completion of the NECR waste repository design.

As documented in a 2012 Administrative Order on Consent, UNC and The General Electric Company agreed to conduct a Time Critical Removal Action involving removal of approximately 30,000 cubic yards of radium contaminated soil located in the Eastern Drainage Area of the NECR Mine Site. The work, undertaken with EPA oversight, involved excavation of contaminated soils in the Eastern Drainage Area and consolidation and covering of the soils at the main waste pile of the NECR Mine Site. Excavation activities in the Eastern Drainage Area were complete in the fall of 2012.

In 2013 and 2014, UNC and The General Electric Company (“UNC/GE”), under federal agency oversight, completed extensive Pre-Design geotechnical sampling and reporting on the mill tailings, borrow areas, and underlying formations at the UNC Mill Site. UNC/GE also undertook additional sampling of the NECR mine waste to provide additional information to support the design effort. Ultimately, waste from the NECR Mine Site will be brought to the UNC Mill Site for permanent disposal in a waste repository. The purpose of the studies at the UNC Mill Site was to better characterize the soil properties of both the tailings material in the existing cells that would underlie the waste brought to the UNC Mill Site from the NECR Mine Site and the soils at the UNC Mill Site that would be used as material for the engineered cover for the new repository. The purpose of the studies at the NECR Mine Site were primarily to provide a better estimate of the volume of contaminated materials. In 2015, EPA signed a settlement agreement with UNC/GE. Under the agreement, UNC/GE will complete the design for the long-term cleanup action including the waste repository at the UNC Mill Site. The agreement excludes the provision of options for voluntary alternative housing and specifies that UNC/GE will reimburse EPA’s costs for “developing and planning for Voluntary Alternative Housing.” The design effort is currently underway.

C. State and Local Authorities Roles

1. State and local actions to date

Refer to the original Action Memorandum.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Refer to the original Action Memorandum.

IV. ENDANGERMENT DETERMINATION

Refer to the original Action Memorandum.

V. ACTIONS SELECTED AND ESTIMATED COSTS

Refer to the original Action Memorandum.

A. Response Actions

1. Action description

The following information supplements the information in the Response Actions section of the original Action Memorandum.

At this time, it is necessary to request a ceiling increase due to the following factors:

1. The actual cost associated with implementing voluntary alternative housing on the Navajo Nation exceed projected costs; and
2. The project time line has been extended; and, therefore, oversight costs of the project must increase; and
3. Additional construction oversight is necessary; consequently, we propose to add the Army Corps of Engineers for construction oversight of the final removal.

The challenges encountered in providing housing on tribal lands are not unique to this project. Delays and increased expenditures in developing housing are common when working in remote locations with a lack of infrastructure. These findings are detailed in the U.S. Government Accountability Office's study on Native American housing at <http://www.gao.gov/products/gao-14-255>. The study also identifies required environmental reviews as a challenge that delayed projects and increased costs, which has been the experience in implementing voluntary alternative housing for this project. The cost increases associated with implementing voluntary alternative housing for the residents living near the NECR Mine Site can be attributed to both an increase in the market value of homes in Gallup, New Mexico (and surrounding areas) and the process associated with construction of housing on tribal trust land. Costs associated with providing the necessary housing infrastructure on tribal trust land include both construction costs and planning costs associated with environmental clearances and the approvals process required to obtain homesite leases, utility easements, and service line extensions on the Navajo Nation. The housing payments are being calculated consistent with EPA's April 2002 Superfund Response Actions: Temporary Relocations Implementation Guidance (OSWER Directive 9230.0-97) and the Uniform Relocation Assistance and Real Property Acquisitions Act ("URA"), 42 U.S.C. §§ 4601 et seq., and its implementing regulations, 49 C.F.R. Part 24.

The original 2011 Action Memorandum estimated a project schedule of 7 years, including 3 years of design and 4 years of construction. However, the schedule did not allow adequate time for the required UNC Mill Site decision making process and NRC license amendment process, nor did the schedule provide for unanticipated and extensive

pre-design studies at the NECR Mine Site and UNC Mill Site. The Region 6 United Nuclear Corporation Mill ROD was approved in March of 2013 and additional pre-design studies were completed in 2013-2014. Whereas the original Action Memorandum anticipated the 3-year Design Phase to begin immediately after signing the Action Memorandum in 2011, the Design Phase did not begin until the AOC was effective in April of 2015. In addition, in 2014, the NCR estimated that the license review process would require an additional two to five years post Design Phase. If the NRC license amendment for the UNC Mill Site is approved, EPA will negotiate a Consent Decree with UNC/GE prior to initiating construction. The project phases identified above require increased extramural expenditures to support the ongoing community involvement activities as well as review and oversight of associated technical reports and field activities generated during this time. With the completion of the design phase anticipated in 2018 and based on NRC's anticipated two to five year license review process, construction completion is estimated between 2025 and 2028.

Finally, the agency anticipates using the Army Corps of Engineers for assistance with construction oversight. Therefore, a cost estimate for four years of field construction oversight assistance from the Army Corps of Engineers is included in the increased budget estimate, requiring the ceiling increase.

2. Contribution to remedial performance

Refer to the original Action Memorandum.

3. Engineering Evaluation/Cost Analysis (“EE/CA”)

Refer to the original Action Memorandum.¹

4. Applicable or relevant and appropriate requirements (“ARARs”)

Refer to the original Action Memorandum.

5. Project schedule

This project schedule supersedes the project schedule in the original Action Memorandum:

As noted above, the original 2011 Action Memorandum estimated a project schedule of 7 years, including 3 years of design and 4 years of construction. However, the schedule did not allow adequate time for the required UNC Mill Site decision making process and NRC license review process, nor did the schedule anticipate the need for extensive pre-design studies. The Region 6 decision document entitled *Record of Decision, United Nuclear Corporation Site, McKinley County, New Mexico, Operable Unit, Surface Soil Operable Unit* (ROD) was issued in March of 2013 and additional pre-design studies were completed in 2014. Whereas the original Action Memorandum anticipated the 3-year Design Phase to begin in 2011, the Design Phase did not begin until the

¹ Note: The 2009 cost estimate has been updated to present worth in Section V.B. under Estimated Costs.

Administrative Order on Consent (AOC) was effective in April of 2015. In addition, in 2014, the Nuclear Regulatory Commission (NRC) estimated that the NRC license review process would require an additional two to five years post Design Phase. Finally, once NRC approves a license, EPA will negotiate a Consent Decree with UNC/GE prior to initiating construction. In addition, the project phases identified above require increased extramural expenditures to support the ongoing community involvement activities as well as review and oversight of associated technical reports and field activities generated during this time.

Revised Project Schedule:

- **Design**
~ 3 years (in progress and expected to end in 2018)

- **NRC License Amendment**
~ 2-5 years (NRC estimate in 5-year Plan)

- **EPA Enforcement Agreement Negotiations for Construction**
~ 1 Year

- **Construction**
~ 4 years

This timeframe results in construction completion between 2025-2028.

B. Estimated Costs

The information in this section supersedes the information in the Estimated Costs section of the original Action Memo.

The cost ceiling for the original 2011 Action Memo and this First Amendment represent EPA Region 9 costs only. EPA Region 6 costs incurred related to NECR Mine Site cleanup are associated with the Region 6 United Nuclear Corporation (UNC) Mill Site and are covered under the 2013 ROD.

The total cost for the removal action was estimated to be \$44,300,000 based on the estimate provided in the 2009 EE/CA and U.S EPA expects UNC to pay for this removal and disposal of contaminated mine waste and soils under a consent decree. We anticipate that the following costs will be eligible for cost recovery:

Cost of the Removal Action paid by the Responsible Party: \$44,300,000

U.S. EPA Extramural Cost:² \$10,688,000

² Extramural costs include construction oversight contractor support (Army Corps of Engineers), contractor technical support (START) and housing.

Table 1: PROJECT CEILING INCREASE ESTIMATE (Cost in millions)

Extramural Costs	Current Ceiling	Proposed Increase	Proposed Ceiling
Future Extramural Cost Estimate* Including:	\$2.96	\$6.440	--
<ul style="list-style-type: none"> • Engineering Oversight (i.e. START) • Removal Construction Oversight (Army Corps of Engineers Interagency Agreement) • Voluntary Alternative Housing (Army Corps of Engineers Interagency Agreement) 		\$0.740 \$1.500 \$4.200	
Extramural Costs Contingency (20% of Subtotal)**	--	\$1.288	--
Total Removal Action Project Ceiling	\$2.96	\$7.728	\$10.688

* Note that the 2011 Action Memo did not include a breakdown of extramural costs. However, original costs of providing a home was estimated at approximately \$130,000 whereas actual planning and construction costs to construct homes on the Navajo Nation was more than twice that amount.

** Note that the 20% contingency amount was not included in the requested \$2.96 million extramural cost ceiling included in the original 2011 Action Memo.

The total EPA costs for this removal action based on full-time accounting practices that would be eligible for cost recovery are estimated to be \$10,688,000 (extramural costs) + \$2,380,000 (intramural costs) = \$13,068,000 x 1.648 (regional indirect rate) = \$21,536,000 over approximately 15 years.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

It is vital to the project that the ceiling increase be granted in order to continue oversight of the PRP removal action as described in the original Action Memorandum as well as to provide voluntary alternative housing to the nearby residents. Given the site conditions, the nature of the hazardous substances documented on-site, and the potential exposure pathways to nearby populations described in Sections III and IV of the original Action Memorandum, actual or threatened releases of hazardous substances from the Mine Site, if not addressed by implementing the response actions selected in the original Action Memorandum, may present an imminent and substantial endangerment to the public health or welfare or the environment.

This information is supplemental to the original Action Memo.

VII. OUTSTANDING POLICY ISSUES

Refer to the original Action Memorandum.

VIII. ENFORCEMENT

Refer to the original Action Memorandum.

IX. EXEMPTION FROM STATUTORY LIMITS


The original Action Memorandum, which includes an approved exemption from the \$2 million and 12-month statutory limits³ (\$2,960,000), is dated September 29, 2011. The NECR Mine Site conditions have not changed from those documented in the original Action Memorandum and continue to meet the same criteria for the exemption from the \$2 million and 12-month statutory limits. Refer to the original Action Memorandum.

³ See Regional Delegation No. 1290.03A

X. RECOMMENDATION

This Action Memorandum amendment documents the need for a ceiling increase to the September 29, 2011, Northeast Church Rock Mine Site Non-Time Critical Removal Action Memorandum developed in accordance with CERCLA as amended, and is not inconsistent with the NCP.

Because conditions at the Site meet the NCP criteria for a Non-Time-Critical Removal Action, we recommend approval for the ceiling increase. The total project ceiling if approved will be \$10,688,000 which would come from U.S. EPA extramural funding sources. Your approval may be indicated by signing below:

Approve: 

Barry Breen, Acting Assistant Administrator
Office of Land and Emergency Management

5/17/2017
Date

Disapprove: _____
Barry Breen, Acting Assistant Administrator
Office of Land and Emergency Management

Date

- cc: Tim Griet, U.S. EPA, OEM, HQ
- Christine Poore, U.S. EPA, OSRTL, HQ
- Carl Edlund, U.S. EPA Region 6
- Janet Brooks, U.S. EPA Region 6
- Sara Jacobs, U.S. EPA Region 9