



# NORTHEAST CHURCH ROCK MINE SITE

U.S. Environmental Protection Agency \$ Region 9 \$ San Francisco, CA \$ June 2009

## US EPA Announces Public Release of Engineering Evaluation and Cost Analysis (EE/CA) and Announcement of 30 – Day Public Comment Period and Public Meetings

The U. S. Environmental Protection Agency (EPA) has developed a cleanup plan to address potential exposure risks posed by the Northeast Church Rock Mine Site (Site) contaminants to protect human health and the environment. In summary, EPA's preference is to move all the mine contaminated material to the United Nuclear Corporation mill tailings cells, to cap and line the waste and to restore the mine site for grazing. The plan and supporting documents are available for public review and comment during the public comment period that runs from June 12, 2009 through July 13, 2009.

### Background

The Northeast Church Rock Mine Site (Site), an abandoned uranium mine (AUM), is located about 16 miles northeast of Gallup, New Mexico. The Site is primarily on tribal trust land adjacent to the Navajo Nation Reservation, and a small portion of the Site is within the Reservation itself. The Site was mined by United Nuclear Corporation (UNC) between 1968 and 1982. UNC holds responsibility for current contamination at the Site. Radium and uranium are the contaminants of primary concern at the Site. Radiation and heavy metals in Site soils from historic mining practices may pose a significant risk to human health and the environment. People may be exposed to these contaminants through ambient air, soil, surface water, sediment, and by eating plants or animals that are impacted by the Site.

The Navajo Nation EPA (NNEPA) and the US EPA have independently identified the Site as the highest priority AUM among the 520 AUMs identified on the Navajo Nation.

This Site is the highest priority because it was the largest underground uranium mine in the country and radioactive waste piles continue to spread into the wash and onto the land surrounding several homes located adjacent to the mine.

The EPA is the lead federal agency at the Site working on the Engineering Evaluation and Cost Analysis (EE/CA) report, which examines the different alternatives for cleaning up the site based upon information from site investigations, such as the Removal Site Evaluation (RSE) report, that are documented in the Administrative Record (both the Administrative Record and the RSE report are discussed further in the Supporting Documents section of this fact sheet). The EE/CA provides circumstances, constraints, and costs for the cleanup plan options. The EE/CA is available for public review and comment.

### Public Participation and the Public Comment Period

During the EE/CA Public Comment Period, the EPA will host two meetings. The first will be an informal meeting open to anyone interested to answer questions about the study and the proposed remedy alternatives, as well as the Site documents that make up the Administrative Record. The second will be a public meeting where comments will formally be taken for consideration by the EPA with regards to the EE/CA and the Administrative Record. After the public comment period closes, the EPA will respond to public comments in the responsiveness summary that will be included in the Administrative Record.

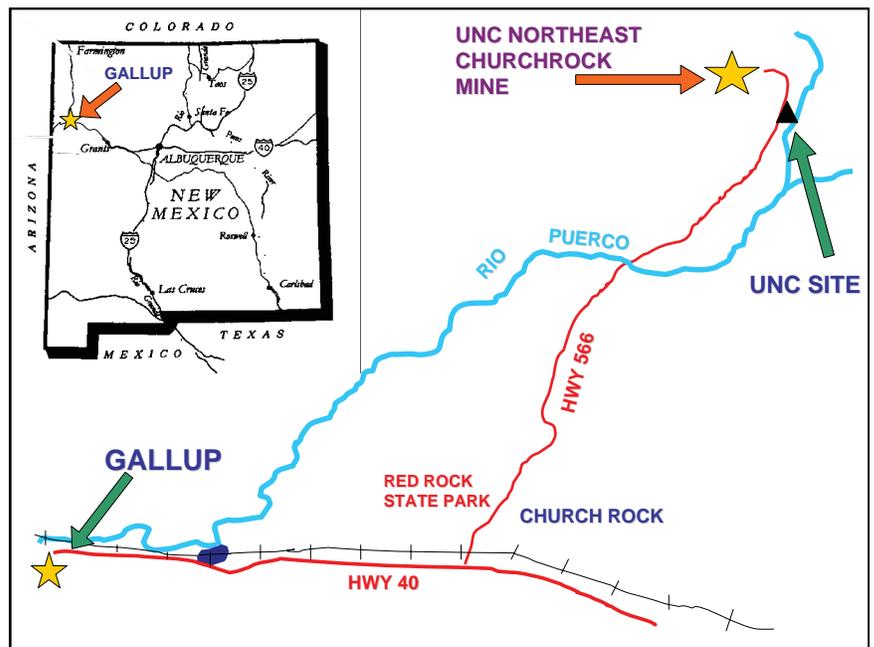


Figure 1: Northeast Church Rock Mine Site Location Map.

## EE/CA Public Comment Period

The EE/CA can be viewed at the Site information repositories which are identified at the end of this fact sheet or online at: [www.epa.gov/region09/NECR](http://www.epa.gov/region09/NECR)

The 30-day public comment period will run from June 12, 2009 through July 13, 2009.

The EPA and NNEPA will host two meetings: An informational meeting and a Public Meeting - Navajo interpretation will be provided at both meetings

On June 23 2009, from 6 pm to 8pm, at the Pinedale Chapter House, we will host an informal meeting to share information and answer the community's questions about the Site and the proposed cleanup options.

On July 7, 2009, from 6 pm to 8 pm, at the Pinedale Chapter House, we will host a public meeting to briefly review the cleanup alternatives, answer clarifying questions and provide the public with the opportunity to give verbal comments on the EE/CA and the Administrative Record. Your comments will be documented by a court-reporter.

## Non-Time Critical Removal Action

EPA is performing a Non-Time Critical Removal Action (Removal Action) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to address the threats to human health and the environment at this Site. To ensure the appropriateness of the proposed actions, the EPA has completed several Site investigations which form part of the Administrative Record, and will consider and incorporate significant public comments provided to the EPA before cleanup activities are to be performed. Some of the required documents that comprise the Administrative Record are discussed below in the Supporting Documents section.

At this current stage of the Removal Action process, the EPA would like to raise public awareness that the EE/CA and the Administrative Record are available for public review at the information repositories for this Site.

## Engineering Evaluation and Cost Analysis (EE/CA)

The EE/CA is a document that summarizes the hazards, evaluates the cleanup alternatives and identifies EPA's preferred alternative for the Site. In this analysis, the EE/CA reviews site conditions such as the volume, the toxicity and potential health risks associated with the contaminants of concern, and the feasibility of the cleanup alternatives that comply with CERCLA and other important laws and regulations, as well as the associated costs of those alternatives. The EPA has identified its preferred alternative. Regardless of EPA's preference, a final decision will not be determined until after the close of the public comment period. After that date, the public comments will be reviewed, given consideration with respect to our decision criteria and addressed in writing in a responsiveness summary.

## Remedy Alternatives

The EPA has identified five potential ways to address the contamination at the Site. The EPA may select a combination of alternatives in its final decision.

1. No Action;
2. Excavation and disposal of all Site wastes at an off-site facility;
3. Consolidation and covering of mine wastes on the Site;
4. Construction of an above-ground capped and lined repository on the Site; and
5. Consolidating the mine wastes in a capped and lined repository at the United Nuclear Corporation (UNC) mill facility currently under license by the U.S. Nuclear Regulatory Commission (NRC), either in an existing tailings cell or in a newly constructed repository.

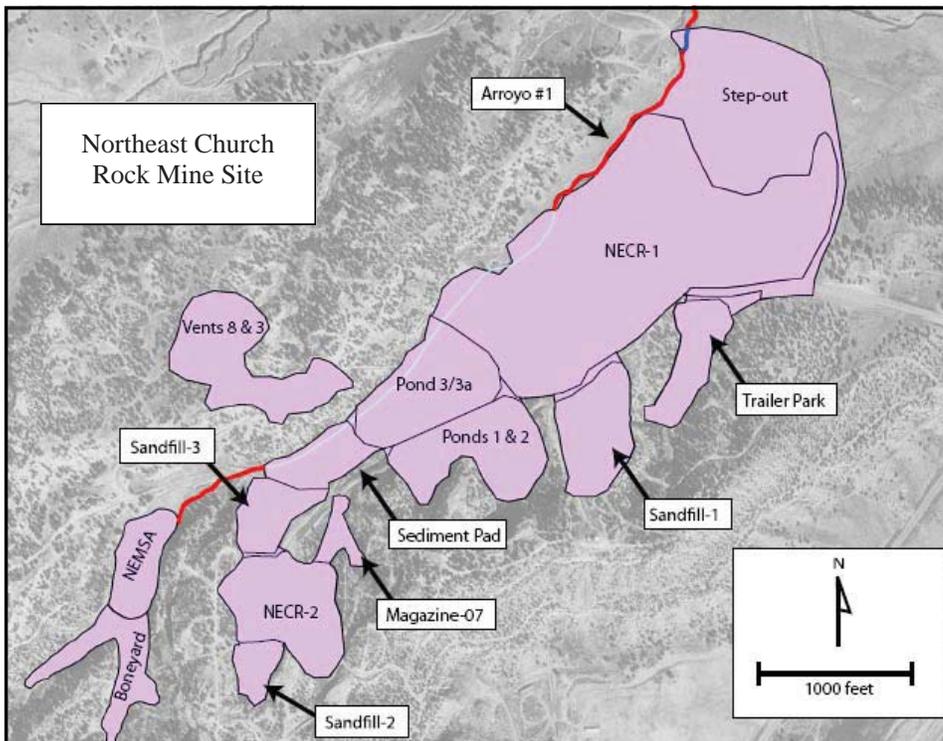


Figure 2: Detailed map of Northeast Church Rock Mine Site.

Alternatives 3, 4 and 5 have the following options:

**A** - Removal of high-concentration “principal threat waste” material (mine waste soils with radium concentrations greater than 200 pCi/g or uranium content greater than 500 mg/kg) to an off-site facility that is certified and regulated to accept this type of waste, or an alternative appropriate facility.

**B** - Removal of “principal threat waste material” for containment in an existing repository on the UNC mill site, or construction of a new repository at the UNC mill facility currently under license by the U.S. Nuclear Regulatory Commission (NRC).

## EPA’s Preferred Alternative

EPA’s Preferred Alternative is Alternative 5A. The primary elements of the Preferred Alternative include:

- Excavation and transport of all mine waste soil with radium above 2.24 pCi/g, except in the ponds, where we would excavate and backfill to a maximum depth of 10 feet – which has been shown to be protective of human health and the environment;
- The waste to be consolidated includes ore, waste rock, roads, buildings, foundations and adjacent soil, and contaminated sediment;
- Consolidation, capping and lining in an existing disposal cell on the UNC mill site, or construction of a new capped, lined cell at the UNC mill facility currently under license by the U.S. Nuclear Regulatory Commission (NRC);
- Principal threat mine wastes taken to an off-site licensed controlled disposal facility, such as at Grandview, ID, or an alternative appropriate facility; and
- Restoration of the NECR Mine Site with erosion and stormwater controls,

regrading and revegetation for future grazing;

- During the construction phase of this removal action, the EPA will conduct air monitoring to ensure the work is being conducted safely.

The total cost for Alternative 5A is estimated to be \$44,300,000.

## Supporting Documents

The Administrative Record is comprised of a number of supporting documents that chronicle Site investigations and serve as EPA’s justification to address the hazards posed by the current uncontrolled release of contamination at the Site. The entire Administrative Record can be reviewed at the Site information repositories identified at the end of this fact sheet. Some specific documents that support the EE/CA are:

## Removal Site Evaluation (RSE)

The RSE report documents an intensive study of Site soils contamination that was performed in the winter 2006/2007. The RSE presents the findings of the study and identifies areas that are contaminated by radionuclides associated with uranium mining.

## Human Health Risk Assessment (HHRA)

This site-specific HHRA indicates the need for a response action to control releases and prevent exposure. Actual and threatened releases of hazardous substances from this Site, if not addressed by a Removal Action, may continue to present risks to public health, or welfare, or the environment.

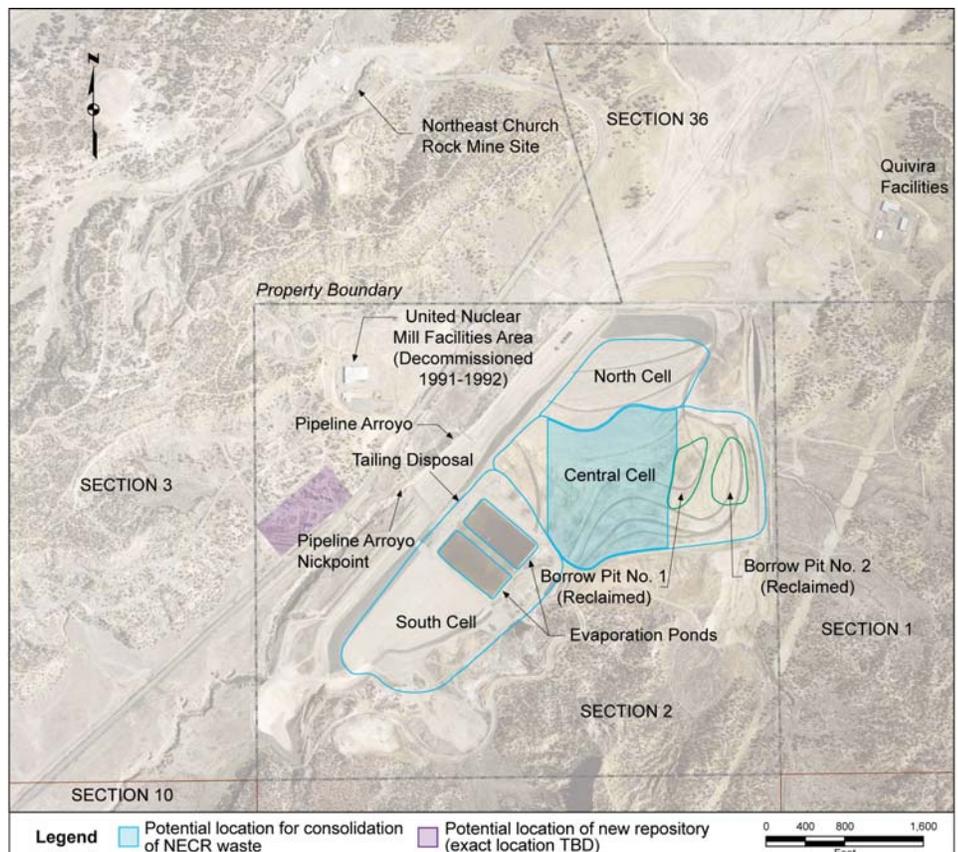


Figure 3: Conceptual Plan of Preferred Alternative 5 and 5A.

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### Information Repositories

#### Octavia Fellin Public Library

115 West Hill Avenue  
Gallup, NM 87301  
(505) 863-1291

#### Navajo Nation Library

204 Post Office Loop Road  
Window Rock, AZ 86515  
(928) 871-6376

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