EPA Signs Record of Decision for the United Nuclear Corporation Superfund Site

United Nuclear Corporation
McKinley County, New Mexico **March 29, 2013**

United States Environmental Protection Agency

This fact sheet will tell you about:

- The Record of Decision (ROD) for the Surface Soil Operable Unit
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Introduction

In July 2012, the U.S. Environmental Protection Agency (EPA) accepted public comment on the Surface Soil Operable Unit (OU02) Proposed Plan for the United Nuclear Corporation Superfund (UNC) Site. The comment period began on July 20, 2012, and ended on September 21, 2012. On March 29, 2013, EPA, in consultation with the New Mexico Environment Department (NMED), signed the Record of Decision for the remedy for the OU02.

Details of the Selected Remedy

The selected remedy (Alternative 2) includes the transportation, receipt, consolidation, and disposal of NECR Site mine waste at the UNC Site within the Tailings Disposal Area (Figure 1). EPA identified Alternative 2 as EPA's preferred remedy in the Surface Soil Operable Unit Proposed Plan for the UNC Site. Principal threat waste is not a part of this selected remedy and principal threat waste from the Northeast Church Rock Site will not be disposed of at the UNC Site. The O&M cost is estimated at $100K year which was calculated as a percentage of the remedy. The net present worth of O&M for 30 years was $1,230,000 (rounded). This was part of the $41.5 million estimated for the entire project. The design and license approval could take between two and four years; construction is projected to take an additional four years.

EPA selected the Preferred Alternative presented in the Proposed Plan because it is expected to be protective of human health and the environment, complying with regulations, and utilize permanent solutions and alternative treatment technologies to the maximum extent practicable.

Site History

The UNC Site includes a historic uranium mill that was licensed to operate by the State of New Mexico in May 1977. The mill operated from 1977 to 1982, and processed ore primarily from two of United Nuclear Corporation's nearby mines: Northeast Church Rock and Old Church Rock. Uranium ore was processed at the facility using a combination of crushing, grinding, and acid-leach solvent extraction methods. The milling operation produced acidic slurry of ground rock and fluid (tailing) that was pumped into the tailings area which consists of three cells. An estimated 3.5 million tons of tailings were disposed in the tailings impoundments (EPA, 1988a).

EPA placed the UNC Site onto the National Priorities List (NPL) of Superfund sites in 1983 [48 Fed. Reg. 40658 (Sept. 8, 1983)] because contaminated liquids had seeped from the tailings at the UNC Site and contaminated the underlying ground water, and because there were toxic emissions to surface water and air (EPA, 1988b). Acidic liquids had seeped from the tailings located in the unlined disposal cells into the underlying alluvium deposits (referred to as the Southwest Alluvium) and also into two deeper zones (Zones 1 and 3) of the Upper Gallup Sandstone Formation, contaminating the ground water with heavy metals, radionuclides such as uranium and radium, and other chemical constituents.

In 1988, EPA and the Nuclear Regulatory Commission (NRC) signed a Memorandum of Understanding (MOU) regarding the UNC Site [53 Fed. Reg. 37887 (September 28, 1988)]. The EPA and the NRC have overlapping authority in connection with the UNC Site, and the MOU

Figure 1: Northeast Church Rock Mine and United Nuclear Corporation site map

was developed to help assure that remedial actions occur in a timely and effective manner.

EPA issued a Ground Water Operable Unit ROD in September 1988 selecting a remedy for the contaminated ground water that included extraction of the ground water and treatment by evaporation. Under the oversight of EPA, United Nuclear Corporation constructed the remedy in 1989 and continues to address ground water contamination under the 1988 ROD. Ground water monitoring and extraction wells are located at the boundary and downgradient of the Tailings Disposal Area. Ground water monitoring and remediation of the contaminant plumes are ongoing.

United Nuclear Corporation submitted a final reclamation plan to NRC which was approved in March 1991. Between 1988 and 1996, United Nuclear Corporation cleaned up the tailings disposal area including decommissioning of the mill facility, remediation of radium contaminated soil, capping of the tailings cells, installation of extraction wells, and construction of evaporation ponds and an evaporation system. All of these activities were completed under NRC oversight, and maintenance of the soil cleanup action continues.

For More Information

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Navajo Nation Superfund Office
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On the Web

On the internet, the Record of Decision can be found at:

http://www.epa.gov/region6/6sf/6sf-decisiondocs.htm

Information about U.S. EPA Region 6 and the Superfund Program can be found at:

http://www.epa.gov/region6/6sf/6sf.htm

Call U.S. EPA at 1.800.533.3508 (toll free) to receive a Spanish translation of this fact sheet.

Para recibir una traducción en español de esta Hoja de Datos, comunicase con la Agencia de Protección del Medio Ambiente de los EEUU (la EPA) al número de teléfono 1.800.533.3508 (llamada gratis).

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