

## **Finding of No Significant Impact Ground Water Compliance at the Shiprock Uranium Mill Tailings Site**

**Agency:** U.S. Department of Energy

**Action:** Finding of No Significant Impact (FONSI)

**Summary:** The U.S. Department of Energy (DOE) proposes to conduct ground water remediation at the former Shiprock, New Mexico, uranium mill tailings site. The purpose of the proposed action is to meet U.S. Environmental Protection Agency ground water standards as defined in Title 40 Part 192 of the *Code of Federal Regulations* (40 CFR 192). Ground water at the Shiprock site is contaminated with residual radioactive material from historical activities associated with the processing of uranium ore. The proposed action and a no-action alternative are described in detail in the *Environmental Assessment of Ground Water Compliance at the Shiprock Uranium Mill Tailings Site* (EA) (see attached DOE/EA-1388). The proposed action consists of the following remediation strategies for three distinct hydrogeologic areas of the site:

*Floodplain*—Natural flushing, monitoring, and institutional controls supplemented by active remediation. Natural flushing will be supplemented by active remediation in the form of pumping of contaminated ground water from one or more extraction wells in the most contaminated part of the floodplain. This ground water will be piped to a lined pond on the terrace above the floodplain where it will be evaporated. During remediation, use of ground water for domestic purposes would not be allowed.

*Terrace East*—Active remediation using French drains and extraction wells to collect contaminated water, which would be piped to one or more lined ponds on the terrace and evaporated. A French drain and slurry wall impermeable barrier placed along the base of the escarpment separating the terrace from the floodplain would intercept and collect ground water moving from the terrace down to the floodplain. This water, along with water collected from extraction wells on the terrace and from a French drain in Bob Lee Wash, would be piped to the pond on the terrace and evaporated. The pond would be up to 10 acres in size. Two French drains near Many Devils Wash would collect water, which would be piped either to the pond or to a smaller lined pond nearby and evaporated. These treatments would continue until the terrace ground water system is hydrologically disconnected from the washes and from seeps along the escarpment.

*Terrace West*—No further remediation and application of Supplemental Standards based on the criterion of limited-use ground water. The DOE would continue to monitor and sample ground water and surface water semiannually in this area for at least the next 5 years with periodic reevaluations to ensure that current beneficial use of the ground water is not being affected by contaminants from the former millsite.

The DOE's proposed actions would reduce concentrations of mill-related constituents in the floodplain and terrace ground water and would minimize any potential for risk to human health and the environment. The DOE would implement administrative actions and field activities to minimize any risk to human health and the environment during and after active remediation. These would include institutional controls, wildlife management, and waste management.

The EA analyzes the relevant environmental effects at the Shiprock site, which include ground water, surface water, human health, air quality, wildlife/endangered species, vegetation, soils,

cultural resources, visual resources, socioeconomics, transportation, and environmental justice considerations.

**Floodplain Statement of Findings:** As authorized by 10 CFR 1022.15, DOE is incorporating the Statement of Findings for the *Shiprock Floodplain and Wetland Assessment* into this FONSI. The floodplain assessment is attached as Appendix A of the EA. Removal of contaminated ground water and compliance with ground water regulations in 40 CFR 192 within the floodplain will have a long-term beneficial effect for humans and the environment. The action conforms to applicable state and local floodplain protection standards. The DOE continues to work with Navajo and federal agencies concerning all activities within the floodplain. Existing access roads and disturbed areas will be used wherever possible during remedial action to minimize disturbance within the floodplain.

**Public Availability of EA and FONSI:** Copies of the EA and FONSI are available for review at the Navajo UMTRA Office in Window Rock, Arizona, the Shiprock Chapter House, local libraries, and Diné College in Shiprock. To obtain copies of the EA and FONSI, contact:

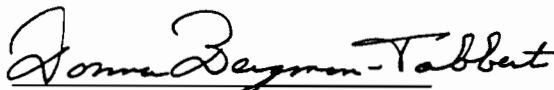
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**Further Information on the National Environmental Policy Act (NEPA) Process:** For further information about the NEPA process, contact:

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**Determination:** On the basis of the EA, which analyzes the relevant environmental issues and addresses the concerns of stakeholders, DOE finds that no significant impact would result from implementing the proposed action to remediate ground water at the Shiprock site. This FONSI is pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321 *et seq.*; the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA, 40 CFR 1500; and DOE's "National Environmental Policy Act Implementing Procedures," 10 CFR 1021. The proposed action does not constitute a major federal action that would significantly affect the quality of the environment within the mandate of NEPA. Therefore, implementation of the proposed action does not require the preparation of an Environmental Impact Statement.

Signed in Grand Junction, Colorado, this 26 day of October, 2001.

  
Donna Bergman-Tabbert, Manager  
DOE-Grand Junction Office