

Department of Energy's Defense-Related Uranium Mines Program And Partnership with The Bureau of Land Management

Background

The National Defense Authorization Act for Fiscal Year 2013 mandated that the U.S. Department of Energy (DOE) prepare a Report to Congress on defense-related uranium mines (DRUM) that produced ore for the U.S. Atomic Energy Commission, DOE's predecessor agency. DOE submitted the DRUM Report to Congress in August 2014 after consulting with other federal agencies, affected states and tribes, and the interested public. As follow-up to the Report, DOE and the U.S. Bureau of Land Management (BLM) help found the federal Abandoned Uranium Mine Multi-Agency Working Group with the Environmental Protection Agency, the Forest Service, the Department of the Interior, the Department of Agriculture, the Bureau of Indian Affairs, and the National Park Service. Through this collaboration, DOE and federal land management agencies determined that many unknowns still exist for the approximate 2,500 mines on federal public lands.

DRUM Program Overview

The Report to Congress provides the framework for the DRUM Program managed by DOE's Office of Legacy Management (LM). The Program's goal is to verify and validate 2,500 DRUM located on BLM- and USFS-administered land by 2022. Verification and validation (V&V) activities are conducted to understand the scope of the problem posed by these mines by determining their location, reclamation or remediation status, and potential impacts to public safety, human health, and the environment. In 2016 and 2017, DOE entered into memoranda of understanding with BLM and USFS to partner together to determine the scope of the problem. DOE holds agreements with BLM state offices in Colorado, New Mexico, Utah and Wyoming.

The purpose of the DOE DRUM Program is to:

- Exchange data with other federal agencies and state governments to reconcile DRUM data;
- Conduct field inventory and environmental sampling at mines to determine their condition;
- Produce site-specific reports that rank physical safety hazards, potential risks to human health and the environment, and accessibility; and
- Improve the quality and content of data in the DOE DRUM database.

DRUM V&V Activities

In 2016, LM developed the DRUM V&V Work Plan ("Work Plan") to implement V&V activities at 43 DRUM pilots located on BLM-administered land. V&V pilot activities were completed in summer 2017, and the Work Plan was revised to incorporate lessons learned. The Work Plan provides procedures on: mine location reconciliation; gamma surveys; soil and water sampling for constituents of interest; and the screening of mines to determine potential risks. V&V field and laboratory results as well as rankings of physical safety hazards, potential risks to human health and the environment, and accessibility are presented in site-specific reports. Rankings utilize a risk scoring methodology and a multiple lines-of-evidence approach developed in conjunction with BLM.

DOE-BLM DRUM Projects

DOE and BLM jointly establish DRUM projects. A field operations plan is developed for each project before field activities begin. Currently, projects are being planned and implemented on land administered by BLM's Monticello Field Office in Utah, and BLM's Uncompahgre Field Office in Colorado. The Red, White and Fry Canyons and Deer Flat Area Project in southeastern Utah provides one example of how DOE, BLM, and state abandoned mine land programs are partnering together to conduct DRUM V&V. BLM Utah will utilize expertise offered by the State of Utah's Abandoned Mine Reclamation Program to review and update the inventory for over 65 DRUM on federal public lands. LM will then perform environmental sampling activities at the mines. After field and laboratory results are obtained, LM will prepare site-specific reports to help BLM Utah determine if further action is needed at DRUM. Field activities are planned to begin in August 2017.