

Major Findings of the DU PA Safety Evaluation Report

The following are conditions that EnergySolutions must agree to meet before final DEQ approval of the DU PA can be given (the basis for each condition is shown in parentheses). These conditions reflect DEQ's current knowledge and may be subject to change based on public comments.

Conditions for Approval

- **Condition 1: Agreement with DOE.**

Prior to disposal of DU waste, EnergySolutions shall provide a written agreement letter between the U.S. Department of Energy (DOE) and EnergySolutions indicating that DOE will accept title to the Federal Cell after closure.

(UAC R313-25-28(1) states: "Disposal of waste from other persons may be permitted only on land owned in fee by the Federal or a State government." Although this has been waived for other disposal at EnergySolutions, it is appropriate to condition disposal of DU because of DOE's legal responsibility for the waste and because establishing long-term control of and responsibility for the land is critical for disposal of DU due to its long-lived radionuclides.)

- **Condition 2: Disposal below grade.**

DU waste must be disposed of below the original-grade level of the proposed Federal Cell.

(Below-grade disposal is required to minimize release of radioactivity should a pluvial lake invade the site of the proposed Federal Cell at some time in the future.)

- **Condition 3: Depleted uranium will continue to be Class A waste.**

EnergySolutions shall provide documentation that the U.S. Nuclear Regulatory Commission does not plan to reclassify DU.

(UCA 19-3-103.7 does not allow land disposal facilities in Utah to accept waste for disposal that is greater than Class A under U.S. Nuclear Regulatory Commission (NRC) 10 CFR 61.55. The NRC has recently indicated that it is considering changing the waste classification for DU. DEQ is seeking to ensure that the NRC will, before this approval is effective, complete its internal review and conclude that DU will continue to be considered a Class A waste.)

- **Condition 4: Remainder of waste will be modeled.**

EnergySolutions shall submit for DEQ approval a revised performance assessment that addresses the total quantities of concentrated DU and other wastes as described in UAC R313-25-9(5)(a) before any radioactive wastes other than the DU waste are emplaced in the proposed Federal Cell.

(UAC R313-25-9(5)(a) requires analysis of "the total quantities of concentrated depleted uranium and other wastes, including wastes already disposed of and the quantities of concentrated depleted uranium the facility now proposes to dispose.")

- **Condition 5: Waste Acceptance Criteria.**

Prior to any land disposal of significant quantities of concentrated DU, the Licensee shall submit a written Waste Acceptance Criteria plan designed to ensure that all DU waste received by the Licensee conforms with all physical, chemical, and radiologic properties assumed in the DU PA modeling report.

(The Waste Acceptance Criteria plan will provide assurance that the properties of the delivered waste fall within the range of properties assumed in the DU PA.)

- **Condition 6: Prohibition of recycled uranium in DU waste.**

The Licensee is prohibited from land disposal of any quantity of DU waste that was produced at DOE facilities from uranium-bearing materials containing recycled uranium.

(Activation and fission product contamination in recycled uranium may result in excessive groundwater contamination.)

- **Condition 7: Hydrological and hydrogeological properties of lower confined aquifer.**

The Licensee shall develop and implement a program to provide more detailed site characterization and hydrogeologic evaluation of aquifers in the area, especially the deeper confined aquifer.

(The possibility exists that contaminated groundwater could flow from the upper aquifer to the lower aquifer, resulting in exposure to inadvertent intruders or members of the public who use the lower aquifer groundwater for beneficial purposes. Only limited information is currently available in this area.)

All conclusions in the depleted uranium (DU) performance assessment (PA) safety evaluation report (SER), including determinations that issues have been resolved, conditionally resolved, or not resolved, are tentative in that they are subject to notice and comment and reconsideration by the Utah Department of Environmental Quality (DEQ) in light of comments made during the public comment period and the record as a whole. A final approval of the DU PA will also be subject to these "Conditions for Approval."