



**May 2015**

### Contact

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### Public Informational Meetings

Wednesday, May 6, 2015  
5:00 PM. to 8:00 PM.  
Tooele County Courthouse  
47 South Main Street,  
Tooele, Utah

Thursday, May 7, 2015  
5:00 PM. to 8:00 PM.  
Utah Department of Environmental  
Quality, Board Room #1015  
195 North 1950 West,  
Salt Lake City, Utah.

### DEQ Website

[www.deq.utah.gov/businesses/E/  
EnSolutions/depleteduranium/  
performassess/index.htm](http://www.deq.utah.gov/businesses/E/EnSolutions/depleteduranium/performassess/index.htm)

### DEQ Social Media

#### Blog

[www.dequtah.blogspot.com/](http://www.dequtah.blogspot.com/)

#### Facebook

[www.facebook.com/udeq](http://www.facebook.com/udeq)

#### Twitter

[www.twitter.com/UtahDEQ](http://www.twitter.com/UtahDEQ)

# Utah Department of Environmental Quality

## Division of Radiation Control

# Fact Sheet

## Depleted Uranium Safety Evaluation Report (SER) Summary

The Safety Evaluation Report (SER) summarizes the analyses that DEQ and its contractor SC&A performed to determine whether the performance assessment (PA) for the disposal of significant quantities of depleted uranium (DU) at the EnergySolutions Clive facility meets federal and state regulatory performance criteria for depleted uranium (DU) disposal sites. The SER determines the extent to which the depleted uranium performance assessment (DU PA) submitted by EnergySolutions complies with these regulatory requirements.

All conclusions in the SER, including determinations that issues have been resolved, conditionally resolved, or not resolved are subject to reconsideration based on public comments and the record as a whole. DEQ has not made a formal recommendation or determination at this time regarding EnergySolutions' proposal. The director of the Division of Radiation Control will make the final decision as to whether to issue a license amendment allowing EnergySolutions to dispose of large volumes of concentrated depleted uranium based on the SER/DUPA and comments received during the public comment period.

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### Preliminary Conclusions in the SER

For the purposes of the SER, "resolved" means that a determination has been made that there is sufficient information to demonstrate that this requirement will be met. "Conditionally resolved" means that a determination has been made that there is sufficient information to demonstrate that this requirement will be met, provided that the applicable condition is also met. "Not resolved" means that a determination has been made that sufficient information has not yet been provided to DEQ to demonstrate that this requirement will be met. "Not resolvable" means that there is sufficient information to show that this condition cannot be met.

### Resolved

The DEQ evaluation found that for the following topics, the EnergySolutions DU PA met the required regulatory criteria. The following issues have been resolved:

- Uranium solubility
- Protection of the public from releases of radioactivity
- Protection of individuals from inadvertent intrusion
- Uranium oral toxicity

## Conditionally Resolved

The DEQ evaluation found that for the following topics, the EnergySolutions DU PA satisfactorily met the required regulatory criteria, and the following topics can be resolved based upon the demonstration that the “Additional Conditions for Approval” have been met. The following issues have been conditionally resolved:

- Kind, amount, classification, and specifications of the material
- Ground water quality discharge permit and compliance with ground water protection levels
- Waste emplacement and backfill

## Not Resolved

The DEQ evaluation found that for the following topics, the EnergySolutions DU PA has not satisfied all of the Department’s concerns and the topics are not resolved at this time. The following issues have not been resolved:

- Evapotranspiration cover
- Infiltration
- Erosion of cover
- Frost damage
- Effects of biologicals on radionuclide transport
- Clay liner
- GoldSim quality assurance
- Deep time analysis

## Not Resolvable

The DEQ evaluation found that at this time there are no topics in the EnergySolutions DU PA that cannot be resolved because of information that asserts that standards cannot be met.

## Additional Conditions for Approval

EnergySolutions must agree to meet the following conditions before DEQ can give final approval.

### 1. Agreement with Department of Energy (DOE)

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

### 2. Disposal below grade

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

### 3. Depleted uranium as Class A waste

EnergySolutions shall provide documentation that the Nuclear Regulatory Commission (NRC) does not plan to reclassify DU.

### 4. Modeling of the remainder of waste

EnergySolutions shall submit a revised performance assessment for DEQ approval that addresses the total quantities of concentrated DU and other wastes before any radioactive wastes other than the DU waste are emplaced in the Federal Cell.

### 5. Waste acceptance criteria

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

### 6. Prohibition of recycled uranium in DU waste

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

### 7. Hydrological and hydrogeological properties of lower confined aquifer

EnergySolutions will develop and implement a program to provide more detailed site characterization and hydrogeological evaluation of aquifers in the area, particularly the deeper confined aquifer.