



State of Utah

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DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL

Douglas J. Hansen  
*Director*

October 31, 2022

Vern C. Rogers, Director of Regulatory Affairs  
EnergySolutions, LLC  
299 South Main Street, Suite 1700  
Salt Lake City, UT 84111

RE: Federal Cell Facility Application Request for Information

Dear Mr. Rogers:

The Division of Waste Management and Radiation Control (Division) hereby provides Requests for Information (RFI) regarding the Federal Cell Facility Application dated August 4, 2022. Each individual paragraph in the attached document is numbered and represents an issue identified in a review of the application. When responding to an RFI, please use the assigned number representing the question. The Division will track all responses and provide regular updated information to the public and reviewers.

The current review does not represent a comprehensive evaluation of the Application's merit and additional RFI's will follow where appropriate.

If you have any questions regarding this letter, please call Otis Willoughby at (801) 536-0220.

Sincerely,

Douglas J. Hansen, Director  
Division of Waste Management and Radiation Control

DJH/OHW/wa

Enclosure: Federal Cell Facility Application Request for Information (DRC-2022-022282)

c: Jeff Coombs, EHS, Health Officer, Tooele County Health Department  
Bryan Slade, Environmental Health Director, Tooele County Health Department EnergySolutions  
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DRC-2022-022281

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# Federal Cell Application Review

## Request for Information or Updates to the Application (RFI)

### General

- Each of the RFI's has been assigned an identifier with a numbering convention as follows-
  - Application/Appendix Section
    - Section/Appendix Subsection
      - Section/Appendix Subsubsection (when applicable)
        - Sequential numbering

*Example: A question in Section 1, subsection 1, subsubsection 1 -The first RFI # would be 1.1.1-1, the next question in that section/subsection would be numbered 1.1.1-2*

**Please refer to the assigned RFI number when submitting a response.**

### *Section 1: General Information*

- **1.1.2-1**

On page 1-1, The "Utah Division of Waste Management and Radiation Control (DWMRC) did not exist in 1988. The reference should read: ... the Utah Division of Radiation Control (predecessor to Utah Division of Waste Management and Radiation Control).

- **1.1.2-2**

On page 1-2, The "Utah DWMRC" did not exist in 1988. The reference should read: ... the DRC (predecessor to Utah Division of Waste Management and Radiation Control).

- **1.2-1**

On page 1-5, All lands owned or controlled by EnergySolutions should be described. The description should match Figure 1-1.

- **1.2-2**

Page 1-5, Please add the Union Pacific Railroad right-of-way to the description.

- **1.2.2-2**

Page 1-9, Figure 1-1 does not indicate where the proposed Federal Cell Facility is to be located.

- **1.2.2-3**

Page 1-10, Figure 1-2 does not indicate where the proposed Federal Cell Facility is to be located.

- **1.2.2-4**

Page 1-10, Figure 1-2 does not include elevations (topographic map).

- **1.2.2-5**

Page 1-10, Figure 1-2, the boundary of the *EnergySolutions* property does not match the description on page 1-5.

- **1.2.2-6**

Page 1-11, Please justify and present a reference for the TDS range “32,000 mg/L to 74,000 mg/L”.

- **1.2.3(3)-1**

Page 1-13 New water level measurements from Sections 30 and 31 were presented to the Division in the west-side drainage discussion (DRC-2022-020549). Please verify this is this still the groundwater flow direction.

- **1.2.3(3)-2**

Page 1-13, *EnergySolutions* states there is no groundwater use in the area. However, we are aware of the local well water use by Clean Harbor’s Clive facility for fire suppression and some process water. Please revise statement to clarify.

- **1.2.3(5)-1**

Page 1-14, DWMRC did not evaluate the February 26, 2021 request to reduce the footprint of the 11e.(2) embankment to accommodate the proposed Federal Cell. 11e.(2). The approval was based solely on the request to reduce the footprint of the cell.

- **1.2.3(5)-2**

Page 1-14, States “That amendment request is currently under review by the director.” However, Amendment 3 for the 11e.(2) license was approved on 3-15-2022 (DRC-2022-001282). Please revise the statement.

- **1.2.3(6)-1**

Page 1-15, Please revise to include the as-built saturated hydraulic conductivity for the upper and lower radon barriers to differentiate between the two.

- **1.2.3(11)-1**

Page 1-17, Please revise and clarify the statement “restricted area”.

- **1.7-1**

Page 1-29, States “In 2019 *EnergySolutions* was notified that..” Please revise to include details for this reference.

## ***Section 2: Site Characteristics***

- **2.1-1**

Page 2-1, Please revise to include the name of the rest stop along I-80, roughly nine miles to the northeast is the *Grassy Mountain* rest stop.

- **2.1.1.1-1**

Page 2-2, Section 5 is noted as Township 1 and included with Sections 29 and 32, however it should be Township 2 South Range 11 West, SLB&M.

- **2.3.1.5-1**

Page 2-15, States “3000 feet of basin fill sediment are present in Ripple Valley”. Please revise to include reference.

- **2.4.1-2**

Page 2-18, States that the proposed Federal Cell facility would have surface water drainage to the Great Salt Lake Desert, to the west. However, the surface water drains to the Great Salt Lake Desert in the northwest, please revise.

- **2.4.1-3**

Page 2-19, States “Federal Cell Facility elevations are” measured annually. Please revise to *will be* measured annually.

- **2.4.2-1**

Page 2-20, The Groundwater Characterization speaks to the “unconfined aquifer”, however it is referred to as the shallow aquifer on page 2-28. Please revise for consistency.

- **2.4.2-2**

Page 2-21, States “Figures 2-3 to 2-6 illustrate groundwater flow regime beneath the Federal Cell facility”. Please revise to specify they are for the shallow aquifer.

- **2.4.2-3**

Pages 2-22, Please revise contour map name to specify it is for the shallow aquifer.

- **2.4.2-4**

Pages 2-23, Please revise contour map name to specify it is for the shallow aquifer.

- **2.4.2-5**

Pages 2-24, Please revise contour map name to specify it is for the shallow aquifer.

- **2.4.2-6**

Pages 2-25, Please revise contour map name to specify it is for the shallow aquifer.

- **2.4.2-7**

Page 2-28, States “Recharge to the deeper confined aquifer probably occurs south and east of the facility in the coarser alluvial deposits adjacent to Lone Mountain”. However, the 1992 Bingham Environmental Hydrogeologic Report indicates that recharge to the deeper confined aquifer occurs south and east of the facility in the coarser alluvial deposits adjacent to the Cedar Mountains, Lone Mountain probably does not generate much recharge update the statement. Please revise to include additional detail and reference.

- **2.4.2-8**

Page 2-28, States “Recharge to the deeper confined aquifer probably occurs south and east of the facility in the coarser alluvial deposits adjacent to Lone Mountain”. However, it is referred to as the shallow aquifer on page 2-28. Please revise for consistency.

- **2.4.2-9**

Page 2-28, States “...100,000 mg/L in monitoring well GW-19A...”. Please justify and present a reference for the 100,000 mg/L TDS range.

- **2.4.2-10**

Page 2-29, “Numerical Analyses”, Please revise paragraph to include appendix citation where these are located.

- **2.7.2-1**

Page 2-41, States “However, the well west of the site has been destroyed.” Please revise to include what the wells were used for, and if they had an effect on the site.

- **2.7.2-2**

Page 2-41, States “While one of the two wells east of the site is in current use to water livestock, the second well has been destroyed.” Please revise to include what the wells were used for, and if they had an effect on the site.

### ***Section 3: Design and Construction***

- **3.1.2-1**

Page 3-13, Includes reference to “Methodologies for Evaluating Long-Term Stabilization Designs of Uranium Mill Tailing Impoundments”, please revise to add the NRC document number NUREG/CR 4620.

### ***Section 4: Facility Operations***

- **4.2.3-1**

Page 4-8, States “movement of depleted uranium waste within the FCF, the facility operator, heavy equipment operator, and spotter transfer the container to the specified location, using the

necessary equipment”. Please revise to include the final height of the container in comparison to the top of the liner.

- **4.3.1-1**

Page 4-11, Please revise to include the final height after the Controlled Low Strength Material (CLSM) placement is complete.

*Section 8: Conduct of Operations*

- **8.1.6-1**

Page 8-6, On the Radiation Safety Officer (RSO) bullet, there is an error, the “Reference source is not found.” Please revise reference.