

UTAH DIVISION OF RADIATION CONTROL

ENERGYSOLUTIONS CLIVE IIe.(2) DISPOSAL LICENSE UT2300478 LICENSE RENEWAL APPLICATION (LRA)

ROUND 1 INTERROGATORIES



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Timeline of LRA submittals

- May 1, 2003 - Original submittal to Nuclear Regulatory Commission (NRC);
- August 16, 2004 - State of Utah agreement with NRC amended to include 11e.(2) byproduct material; gives State regulatory authority over Envirocare of Utah (now *Energy Solutions*) 11e.(2) byproduct radioactive material license (RML);

Timeline of LRA submittals

- February 4, 2005 - Division of Radiation Control (DRC) issued Envirocare of Utah a new 11e.(2) RML #UT2300478 and recognized that the RML was under timely renewal;
- February 28, 2005 - Envirocare of Utah submitted the 11e.(2) RML renewal application to the DRC. The review was conducted by DRC contractor URS Corporation;

Timeline of LRA Submittals

- June 29, 2005 - DRC issued the first round of Interrogatories for the 11e.(2) License Renewal Application (LRA);
- February 28, 2006 - Envirocare of Utah submitted Revision 2 of the 11e.(2) LRA;
- March 26, 2006 - RML UT2300478 was amended to change the corporate name from Envirocare of Utah Inc. to *Energy Solutions* LLC;

Timeline of LRA submittals

- February 13, 2007- the DRC issued a technical interrogatory;
- May 15, 2007 - Energy *Solutions* submitted Rev. 3 LRA;
- October 16, 2007 - DRC issued Round 2 Interrogatories;
- DRC and Licensee agreed to place the review of the 11e.(2) LRA on hold to reallocate DRC resources to other Licensing actions.

Timeline of LRA submittals

- January, 2012 - the DRC and Energy *Solutions* agreed to start the review of the LRA;
- May 4, 2012 - Energy *Solutions* submitted Revision 4;
- May 22, 2012 - DRC sends RFI to Energy *Solutions* for completeness review of Rev.4;
- June 1, 2012 - Energy *Solutions* submitted Revision 5 of the LRA.

General Comments

- LRA has 27, EA has 11, interrogatories on use of old information and data;
- Cites compliance with NUREGs, SOPS or regulations but not specific sections or specific SOPs (clear and precise references)

General Comments

- Inconsistent use of units/not citing one or another or both units throughout document; DRC prefers SI units with English units in parenthesis;
- Need to cite Utah Rules not just NRC regulations
- 18 interrogatories on requesting specific SOPs
- 9 interrogatories on DHP/RSS

INTERROGATORIES

SECTION 1.0-PROPOSED ACTION

SECTION 2.0-SITE CHARACTERIZATION

- Provide updated drawings and descriptions to include changes to the facility as a result of the Class A West License Amendment - Low Level Waste RML.
- Correct the information on settlement monitoring and move the information to Section 3.1, "Embankment Design, Construction and Performance."
- Discuss how settlement will be monitored on that portion of the cover that already has final cover but has no settlement monitoring and no monuments to date.

INTERROGATORIES

SECTION 1.0-PROPOSED ACTION

SECTION 2.0-SITE CHARACTERIZATION

- Update and correct the population and demographic projection data in Tables 2-1, 2-2 and the text on page 2-16.
- Provide data and discussion on frequency and impact of the high winds that occur at the Clive facility.
- Provide information on the times of year when precipitation may affect operations at the Clive facility.

INTERROGATORIES
SECTION 1.0-PROPOSED ACTION
SECTION 2.0-SITE CHARACTERIZATION

- Add more information and current data on the climatology and meteorology of the site and area. Provide tables that summarize the meteorological data collected at the site since the license was first issued.

INTERROGATORIES
SECTION 1.0-PROPOSED ACTION
SECTION 2.0-SITE CHARACTERIZATION

- Please assure the drawings and flood calculations support statements in the LRA, or change the LRA verbiage and demonstrate adequate Probable Maximum Flood (PMF) protection for the 11e.(2) embankment.

INTERROGATORIES

SECTION 1.0-PROPOSED ACTION

SECTION 2.0-SITE CHARACTERIZATION

- Provide data on the depth of root growth of the Black Greasewood plant to justify the statement that the plant will not penetrate the clay radon barrier. Provide data from studies on burrowing animal species, burrowing depth and densities, which could reasonably be expected to colonize the site within the performance period of the embankment.

INTERROGATORIES

SECTION 3.0-DESCRIPTION OF FACILITY

- Provide a clear and comprehensive description of site soils. Describe geomorphic processes, and indicate if the 11e.(2) embankment has resulted in modification of natural site conditions (wind deposition).
- Demonstrate that conditions used in the liquefaction analyses for CAW are consistent or conservative compared to the design of the 11e.(2) embankment.

INTERROGATORIES

SECTION 3.0-DESCRIPTION OF FACILITY

- Provide provisions in the design, analysis and CQA/QC manual for fill and cover or “staged construction.” Address differential compaction
- The stated design capacity of the 11e.(2) embankment is not consistent between all sections of the LRA and between the License, GWQDP, LRA, and remaining capacity of the 11e.(2) embankment after the proposed Class A South volume was transferred to the Class A West (CAW) embankment.

INTERROGATORIES

SECTION 3.0-DESCRIPTION OF FACILITY

- During the CAW amendment of RML for low level waste, the volume of the 11e.(2) embankment was reduced by 3.5 million cubic yards (class A South). The Huntsman Agreement, which is an agreement between Energy *Solutions* and the State of Utah on the total volume of waste to be accepted in Section 32 of the Clive facility.
- In 2012, the Annual as Built Report stated a remaining capacity of 3.4 million cubic yards as of August 25, 2012.

INTERROGATORIES

SECTION 4.0-EFFLUENT CONTROL SYSTEMS

- 9 interrogatories involving Section 4, Effluent Control Systems
- The Licensee did not adequately describe how effluents (soil, ground water, surface water, air) are monitored and controlled.

INTERROGATORIES

SECTION 5.0-OPERATIONS

- 59 interrogatories on Section 5, Facility Operations
- Management (Appendix I),
- SOPs, audits and inspections
- DHP (RSO) and radiation safety staff qualifications
- Respiratory protection program
- Radiation safety training
- Records management
- Radiological surveys
- Dose calculations

SECTION 6.0-GROUNDWATER QUALITY RESTORATION, SURFACE RECLAMATION, PLANT DECOMMISSIONING (RECLAMATION DECOMMISSIONING PLAN

- 12 interrogatories
- 10 CFR Appendix A, Criteria 1 and 9, requires a complete Reclamation; Decontamination and Decommissioning Plan that must include surrounding areas, including a time line;
- Revise embankment and cover design for corrected capacity.

INTERROGATORIES

SECTION 7.0-ENVIRONMENTAL EFFECTS

- 12 interrogatories on Section 7, Environmental Effects
- Most interrogatories asked for use of current data regarding environmental effects due to releases from operations
- Update the Dose Assessment from 1993 by Momeni and Associates

INTERROGATORIES

SECTION 8.0-EMERGENCY RESPONSE PLAN

- 3 interrogatories on Section 8, Emergency Response Plan
- Notifications and leaking shipments

INTERROGATORIES

SECTION 9.0-ALTERNATIVES TO PROPOSED ACTION

- No interrogatories for Section 9, Alternatives to Proposed Action

INTERROGATORIES

SECTION 10.0-COST BENEFIT ANALYSIS

- No interrogatories in Section 10, Cost Benefit Analysis

INTERROGATORIES

SECTION 11.0-ENVIRONMENTAL APPROVALS AND CONSULTATIONS

- 1 interrogatory on Section 11, Environmental Approvals and Consultations
- List all consultants

INTERROGATORIES

SECTION 12.0-APPLICABLE REGULATIONS

- no interrogatories for Section 12, Applicable Regulations

OUTSTANDING URS INTERROGATORIES

- 1 interrogatory
- Provide more detail and justification in the responses to previous interrogatories

Environmental Assessment Report Interrogatories

- 59 Interrogatories
- Use current data from Environmental Monitoring Reports
- Provide an Environmental Monitoring Plan
- Summarize and tabulate monitoring data since license approval

Questions

