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QA/11-057

Mr. Rusty Lundberg  
Executive Secretary  
Utah Radiation Control Board  
195 North 1950 West  
Salt Lake City, UT 84114-4850

DNMS

Mr. Roy Caniano, Director  
Division of Nuclear Material Safety  
U.S. Nuclear Regulatory Commission Region IV  
612 East Lamar Blvd.  
Suite 400  
Arlington, TX 76011-4125

Re: Written Notification and Follow-Up for a Non-Compliant Shipment at the Clive Low-Level Radioactive Waste Disposal Facility, Radioactive Material License UT 2300249 for Shipment Number 9011-18-0001; Bates #L117120; GSAP #1103006480

Dear Sirs:

This letter provides written notification and additional follow-up to the Utah Division of Radiation Control (UDRC) and the U.S. Nuclear Regulatory Commission (NRC) Region IV of a non-compliant shipment at the EnergySolutions Low-Level Radioactive Waste Disposal Facility (Clive) in Clive, Utah.

On June 29, 2011, EnergySolutions Clive disposal facility received shipment 9011-18-0001 (Bates Number L117120). Routine on-site radiological screening analysis conducted on June 30, 2011, indicated that both Am-241 and Cs-137 exceeded the Clive RML Class A limits. Additionally, although profiled and present in the gamma spectroscopy sample, Cs-137 was not included on the Uniform Low Level Radioactive Waste Manifest (manifest) for this shipment. The shipment was immediately placed on hold and Condition Report CRSD11-045 was written to document and track the nonconforming shipment.

On June 30, 2011, a verbal notification was made, via telephone, from Rick Chalk, Director of Health Physics - Clive, UT to:

- Mr. Rusty Lundberg, Executive Secretary Utah Radiation Control Board

On July 6, 2011, a follow up written notification was provided to:

- Mr. Rusty Lundberg, Executive Secretary Utah Radiation Control Board

After discussions with the Utah Division of Radiation Control and the generator it was determined that samples would be sent to an off-site laboratory for an independent verification. Due to the full 10 CFR part 61 analysis on the samples, results from the laboratory were not received until July 25, 2011. Once the laboratory results were received and reviewed by the Director of Health Physics it was determined that Am-241 and Sr-90 exceed the Class A RML limits. In addition, Pu-239/240 concentrations exceeded Class A concentrations and exceeded the SNM concentrations authorized by the Clive RML. Verbal notification was made, via telephone, from Rick Chalk, Director of Health Physics – Clive, UT to:

- Mr. Blair Spitzberg, U.S. Nuclear Regulatory Commission Region IV
- Mr. Rusty Lundberg, Executive Secretary Utah Radiation Control Board

The shipment sample results and requisite Utah Radioactive Material License Number UT 2300249 license conditions that were exceeded are listed below.

1. **License Condition 9.B.** – “In accordance with the Utah Code Annotated 19-3-105, the Licensee may not receive Class B or Class C low-level radioactive waste without first receiving approval from the Executive Secretary of the Utah Radiation Control Board and also receiving approval from the Governor and the Legislature.”

***Non-Compliance***

Contrary to the above license condition, the sample results were;

Sample results	Class A limit
13.3 nCi/g Am-241	10 nCi/g
131 nCi/g Pu-239/240	10 nCi/g
0.63 Ci/m <sup>3</sup> Sr-90	0.04 Ci/m <sup>3</sup>

2. **License Condition 13.A.** – “Concentrations of SNM in individual waste containers must not exceed the values listed in Table 13-A at the time of receipt.” Only the Pu-239/240 concentrations are listed below.

Plutonium 239/240 maximum concentration – 10,000 pCi/g

***Non-Compliance***

Contrary to the above license condition, the sample results were 131,000 pCi/g (131 nCi/g) Plutonium- 239/240.

3. **License Condition 13.H.** – “EnergySolutions shall notify the NRC, Region IV office within 24 hours if any of the above conditions are violated, including if a batch during treatment process exceeds the SNM concentration in License Condition 13.A. A written notification of the event must be provided within 7 days.”

This letter and the phone notifications referenced above meet this license condition.

In summary, the waste shipment Manifest No. 9011-18-0001 exceeded Class A concentrations for Am-241, Sr-90 and Pu-239/240 and the Clive SNM exemption concentration for Pu-239/240. In accordance with the EnergySolutions Quality Assurance Program, Condition Report CRSD11-045 was initiated and will require a corrective action plan from the generator that will include corrective actions to prevent recurrence. This is the second RML SNM exceedance from this generator. CRSD11-045 will be revised to include an evaluation by the Clive QA Manager and Director of Health Physics to determine if there is a correlation between the two SNM exceedances from this generator and whether corrective actions from the previous non-conforming shipment were adequate to prevent recurrence. EnergySolutions has pulled the generator's Notice to Transport until approval of the corrective action plan and verification of their implementation. EnergySolutions is currently working with the generator to have this shipment returned to their site as soon as possible however, a schedule for returning this shipment has not yet been determined. The shipment will remain on hold in the Clive Restricted Area until it is shipped back to the generator. Please call with any questions or concerns at (801) 649-2179.

Sincerely,



Rick Chalk  
Director of Health Physics - Clive, UT.

Cc: Mr. John Hultquist, Utah DRC  
Mr. Phil Goble, Utah DRC  
Mr. Blair Spitzberg, U.S. NRC  
Mr. Robert Evans, U.S. NRC