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June 15, 2010

CD10-0180

Mr. Dane Finerfrock
Executive Secretary
Utah Division of Radiation Control
195 North 1950 West
Salt Lake City, UT 84114-4850

Docket# 0410-08989

Mr. Arthur T. Howell, 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 of Exceedance at the Clive Low-Level Radioactive Waste Disposal Facility, Radioactive Material License UT 2300249

Dear Sirs:

This letter provides written notification to the Utah Division of Radiation Control (UDRC) and the U.S. Nuclear Regulatory Commission (NRC) Region IV of a non-compliance at the EnergySolutions Low-Level Radioactive Waste Disposal Facility (Clive) in Clive, Utah. This written notification was preceded by a phone notification on June 11, 2010 by Mr. Mark Ledoux, EnergySolutions Corporate Director, Radiation Safety, to:

- Mr. Dane Finerfrock, Executive Secretary Utah Radiation Control Board
- Mr. Robert Evans, Senior Health Physicist, NRC Region IV

On March 1, 2010, Clive received a mixed waste shipment for processing and disposal. The shipment (Manifest No. W9011-17-0001) consisted of a single 55-gallon drum comprised of pipe scale and sludge contaminated with mercury. As required by the Clive Waste Characterization Plan, the contents of this drum were sampled on May 4, 2010 to check the radiological and hazardous content for compliance with the Clive Radioactive Material License (RML). On May 18, 2010, offsite laboratory results indicated the drum exceeded Class A concentrations and exceeded the SNM concentrations authorized by the Clive RML. After discussions with the Generator (# 9011), it was determined that since there were three distinct waste types within the drum, the May 18, 2010 waste

sample may not have been representative of the waste. A second, more representative, sample was obtained on June 3, 2010.

On June 11, 2010, preliminary sample results were received from the offsite laboratory and these results, although not complete, were sufficient to determine the drum was not compliant with the Clive RML. Additional sample results are forthcoming but not germane for this compliance determination.

The drum 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.”

Utah Administrative Code R313-15-1008

The maximum Class A waste concentration for an alpha-emitting transuranic with a half-life greater than five years is 10 nCi/g.

Non-Compliance

Contrary to the above license condition, the drum sample results were 269 nCi/g plutonium- 239/240

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 (10 nCi/g)

Non-Compliance

Contrary to the above license condition, the drum sample results were 269 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 drum (Manifest No. W9011-17-0001) exceeded Class A concentrations, at a minimum, for Pu-239/240 and exceeded the Clive SNM exemption concentration for Pu-239/240. In accordance with the EnergySolutions Quality Assurance Program, Condition Report CRSD10-021 was initiated requiring a corrective action plan from the Generator and removal of the waste drum from Clive.

Please call with any questions or concerns at (801) 649-2179.

Sincerely



Rick Chalk
Clive Director, Radiation Safety

Cc: Mr. Scott Anderson, Utah DSHW