



January 3, 2011

CD11-0003

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

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 Non-Compliant Shipment at the Clive Low-Level Radioactive Waste Disposal Facility. Radioactive Material License UT 2300249 for Shipment Number 9077-04-0002, GSAP 0903005140

Dear Sirs:

This letter provides additional written notification and 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 November 19, 2010, a verbal notification was made, via telephone, from Mark Ledoux, EnergySolutions Corporate Director, Radiation Safety to:

- Mr. Robert Evans, U.S. Nuclear Regulatory Commission Region IV

On November 18, 2010, written notification was made by Dan Shrum, Senior Vice President, Regulatory Affairs to:

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

On Tuesday, November 16th 2010, Clive received shipment 9077-04-0002 (Bates Number L115195). The shipment consisted of 13 containers (nine ion exchange vessels with resin and four-55 gallon drums of assorted material). The dose rate surveys provided by the generator for the containers within this shipment were not consistent with the radionuclide concentrations that the generator provided with the Uniform Low-Level Radioactive Waste Manifest (manifest). Clive requested supplementary characterization data to support the manifested concentrations.



January 3, 2011
CD11-0003
Page 2 of 3

The generator provided supplementary characterization data indicating that several radionuclides exceeded Class A and special nuclear material (SNM) concentrations authorized by the Clive radioactive materials license. Shipment 9077-04-0002 was placed on hold and Condition Report CRSD10-050 was written.

Further discussions with the generator determined that waste characterization for this shipment was in error and that the four-55 gallons drums were incorrectly characterized. To determine the path forward for radiation safety and Department of Transportation (DOT) reasons, EnergySolutions agreed to visually inspect the waste contents of the suspect four drums and collect samples for analyses by an independent laboratory (GEL Laboratories). The four drums were inspected and sampled on December 2, 2010. EnergySolutions received the final GEL laboratory report on December 28, 2010 (high sample activity and proper QC increased time for final sample results). Based on the laboratory analysis, the four drums exceed the Class A concentration limit (the classification controlling radionuclides are Am-241, Pu-238, Pu-239, Cs-137, and Sr-90) and one drum exceeds the SNM concentration limit. The SNM concentration limits for Pu-238 and Pu-239 are 10,000 pCi/g. The laboratory results from the one drum exceeding the SNM limits reported concentrations of 11,500 pCi/g for Pu-238 and 747,000 pCi/g for Pu-239.

The four drums, which exceeded the Clive license limits, were rejected as shipment 9077-04-0002 and will be shipped off-site no later than January 14, 2011. Due to the radionuclide concentrations reported in the laboratory analysis, the four drums will need to be shipped from the Clive site in a Type B cask. EnergySolutions maintains a fleet of Type B casks which are heavily used in the nuclear industry. EnergySolutions is working with the generator to provide a Type B cask which will be made available the week of January 10th to support shipment of the four drums. The remaining nine containers within this shipment, which were accurately characterized, will receive a new manifest and be disposed of at Clive as shipment 9077-04-0003. Samples were obtained from the remaining nine containers in accordance with the Clive Waste Characterization Plan. Sample results indicate radionuclide concentrations consistent with their manifested concentrations and compliant with the Clive radioactive material license.

EnergySolutions has initiated Condition Report CL-CR-11-001 to evaluate causal factors and trends, if any, associated with this and prior waste classification and SNM Order concerns in recent months. A follow-up report will be provided to NRC and DRC no later than February 28, 2011.

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

Sincerely



January 3, 2011
CD11-0003
Page 3 of 3

A handwritten signature in cursive script that reads "Rick Chalk".

Rick Chalk
Director of Health Physics - Clive , UT.

Cc: Mr. John Hultquist, Utah DRC
Mr. Robert Evans, U.S. NRC