

December 21, 2018

CD18-0220

Dr. Janine Katanic
Chief – Fuel Cycle and Decommissioning Branch
U.S. NRC Region IV
1600 East Lamar Boulevard
Arlington, Texas 76011-4511

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DNMS

Subject: EnergySolutions Clive Disposal Facility – Radioactive Material License UT 2300249
License Condition 13, Special Nuclear Material - Revised

Dr. Katanic:

In a letter dated November 1, 2018 (CD18-0195), EnergySolutions notified the United States Nuclear Regulatory Commission Region IV office of a license limit exceedance regarding a Vacuum Thermal Desorption (VTD) batch of waste containing Special Nuclear Material (SNM). Analytical results of an initial sample taken from this batch identified Plutonium-239 at a concentration in excess of the 10,000 pCi/g limit allowed by License Condition 13.A. The letter also indicated that batches that were run after this batch were at risk and were being evaluated. This follow-up letter serves to inform the Commission of the results of additional sampling. Based on these results no containers show exceedances of License Condition 13.A. for SNM.

A review of information regarding the initial sample by our on-site laboratory personnel indicated that its weight was less than expected for this type of waste. The sampling technique was also reviewed and it was noted that samples were collected from the top of the treated waste pile within the VTD unit instead of collecting a representative sample from the collection box once the treatment batch was completed. A visual examination of the processed material in each of the suspect containers after discharge from the VTD unit indicated that there were piles in the middle of the container (beneath the discharge), and that smaller amounts accumulated in the corners of the container. Further examination revealed that the piles in the middle of the containers contained heavier material on the bottom and that all of the discharged material on top of the pile that spread across the container was lighter.

A more representative sample was collected from each container by mixing the material within each container and then taking six aliquots from each container (two from the middle and one from each corner). These aliquots were composited and sent to General Engineering Laboratories LLC for radiological analyses. Results from these analyses confirmed that it did not exceed License Condition 13.A for SNM. The results also indicated that all of the other suspect batches were below License Condition 13.A limits.

The State of Utah Division of Waste Management and Radiation Control (DWMRC) has been notified of these additional sampling results and our plan for managing and treating this waste moving forward.

If you need any additional information, please do not hesitate to contact me by work phone at 801-649-2168, cell phone at 801-739-4592 or via e-mail at tabrown@energysolutions.com.

Sincerely,



Thomas A. Brown
Radiation Safety Officer

Cc: DWMRC
Scott Anderson
Don Verbica