

April 23, 2014

Mr. Daniel B. Shrum
Senior Vice President, Regulatory Affairs
EnergySolutions, LLC
423 West 300 South, Suite 200
Salt Lake City, UT 84101

SUBJECT: RESPONSE TO ENERGYSOLUTIONS REQUEST TO MODIFY
CURRENT AUTHORIZED METHOD FOR RECEIPT OF SPECIAL
NUCLEAR MATERIAL AT THE CLIVE, UTAH LOW-LEVEL WASTE
DISPOSAL FACILITY

Dear Mr. Shrum:

This letter is in response to your November 5, 2013, request to the U.S. Nuclear Regulatory Commission (NRC) staff to modify the current authorized method for receipt of Special Nuclear Material (SNM) at the EnergySolutions Clive, Utah low-level waste disposal facility. Your request is available via the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML13318A136. EnergySolutions receives and disposes of shipments containing SNM at its Clive, Utah low-level waste disposal facility. Activities involving SNM are among those that EnergySolutions is authorized to perform under its Utah radioactive material license (RML UT 2300249).

The NRC maintains jurisdiction over SNM in quantities that exceed the limits in Title 10, *Code of Federal Regulations*, Section 150.11 (10 CFR 150.11). Under that regulatory authority, the NRC issued a revised Order dated January 14, 2003, which remains in effect, that exempted EnergySolutions from the NRC's requirements to obtain an NRC license to possess SNM in quantities greater than the limits in 150.11, under certain conditions and concentration limits at the Clive, Utah low-level waste disposal facility. Disposal of SNM at the Clive facility remains subject to the regulatory oversight of the State of Utah as long as the conditions and concentration limits of that NRC Order are met. The State of Utah has incorporated those conditions and concentration limits in RML UT 2300249 License Conditions 13-A through 13-I and it is our understanding that compliance with those conditions and limits is considered under Utah's inspection and/or compliance program associated with RML UT 2300249.

By letter dated April 27, 2001, Envirocare (now known as EnergySolutions) had informed the NRC staff of its intent to not use the exemption in the 2001 SNM Order for the Containerized Waste Facility (CWF) located within the Clive facility. Envirocare provided the NRC staff with details on the CWF, including that the CWF would be under separate control (i.e., mass control limits) and that waste covered by the exemption would not be commingled with CWF waste. By letter dated May 16, 2001, the NRC staff replied to Envirocare, concluding that, because the CWF will be a separate facility and waste covered under the exemption will not be commingled with CWF waste, the conditions of the exemption do not need to be imposed on the CWF. Thus, the CWF could be regulated by the State of Utah for possession of SNM in quantities below the 10 CFR Part 150 mass limits. The State of Utah imposed License Condition 13-J, which contains the CWF waste SNM mass control limits.

Based on your November 5, 2013, request and follow-up teleconference calls between your staff and NRC staff on both November 21, 2013, and December 11, 2013, the NRC staff understands the following about your request:

- Currently under RML UT 2300249, if a rail conveyance (i.e., one railcar) contains both containerized waste and bulk waste sea land containers, then EnergySolutions is required to separately unload each container outside the restricted area onto a truck (i.e., trans-loading). The restricted area is the EnergySolutions controlled area, which is inside the facility's fence line. For each waste container, EnergySolutions takes it off a railcar by crane, and moves it onto a truck, which then gets driven inside the restricted area. There are separate waste containers for containerized waste and bulk waste. The CWF contains containerized waste and the Bulk Waste Facility contains bulk waste. When EnergySolutions brings a containerized waste container into the restricted area, it must go directly to the CWF and is subject to the SNM mass control limits in License Condition 13-J. When EnergySolutions brings a bulk waste container into the restricted area, it is subject to the SNM conditions and concentration control limits in License Conditions 13-A through 13-I.
- EnergySolutions proposes to create a small transfer area just inside the northwest part of the restricted area where, four to six times a year, one rail conveyance at a time with both containerized waste and bulk waste containers can be stored for up to 24 hours – as long as they remain in the same configuration that met the 10 CFR Part 71 (Packaging and Transportation of Radioactive Material) requirements – before the waste containers are required to be trans-loaded.

Therefore, NRC understands that the impact of the EnergySolutions operations change is that for each waste container on the rail conveyance, during the time that rail conveyance enters the restricted area and that waste container is placed on a truck, that waste container would not be subject to either: (1) the SNM mass control limits in RML UT 2300249 License Condition 13-J, which are not in the NRC Order; or (2) the NRC Order criteria reflected in the SNM conditions and concentration control limits in RML UT 2300249 License Conditions 13-A through 13-I. However, when a container holding containerized waste is trans-loaded onto a truck, the SNM mass control limits in License Condition 13-J will apply to that container and it must go directly to the CWF; and when a container holding bulk waste is trans-loaded onto a truck, the container would be subject to the SNM conditions and concentration control limits in License Conditions 13-A through 13-I, which came from the NRC Order criteria.

The NRC staff reviewed the criticality safety aspects of the above proposed EnergySolutions operations change. The NRC staff determined that the above proposed operations change is acceptable. The staff concludes that the proposal does not pose a criticality safety issue because: (1) only one rail conveyance to the designated transfer area will be in the transfer area at a time; (2) the rail conveyance will meet the 10 CFR Part 71 requirements for

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transportation and storage; and (3) upon completion of the trans-loading onto a truck of a container holding containerized waste, that container would be directly moved to the CWF. The State of Utah also can choose to include the above proposed EnergySolutions operations change in a State approved License Condition in RML UT 2300249.

Should you have any questions regarding this response, please contact me at (301) 415-6686 or the NRC Project Manager for this request, Harry Felsher, at (301) 415-6559.

Sincerely,

/RA/

Aby Mohseni, Deputy Director
Environmental Protection and
Performance Assessment Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 40-8989

cc: Mr. Rusty Lundberg,
Director, Utah Division of Radiation Control

Mr. Mark Ledoux,
Corporate Radiation Safety Officer
EnergySolutions, LLC

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transportation and storage; and (3) upon completion of the trans-loading onto a truck of a container holding containerized waste, that container would be directly moved to the CWF. The State of Utah also can choose to include the above proposed EnergySolutions operations change in a State approved License Condition in RML UT 2300249.

Should you have any questions regarding this response, please contact me at (301) 415-6686 or the NRC Project Manager for this request, Harry Felsher, at (301) 415-6559.

Sincerely,

/RA/

Aby Mohseni, Deputy Director
Environmental Protection and
Performance Assessment Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 40-8989

cc: Mr. Rusty Lundberg,
Director, Utah Division of Radiation Control

Mr. Mark Ledoux,
Corporate Radiation Safety Officer
EnergySolutions, LLC

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OFC	DWMEP	DWMEP	FCSS	DMSSA	DWMEP	OGC	DWMEP
NAME	HFelsher	TMoon	MFranovich	DWhite	GSuber	BJones	AMohseni
DATE	1/16/14	1/22/14 (by e-mail)	1/28/14 (by e-mail)	1/29/14 (by e-mail)	1/31/14	4/03/14 (by JO e-mail)	4/22/14

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