



20 December 2007
E&L-039-07

Mr. Robert A. Nelson,
Chief
Licensing Section
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Nelson:

Subject: Amendment Request for the 10-160B Certificate No. 9204

EnergySolutions respectfully submits the enclosed amendment request for the 10-160B cask Safety Analysis Report (SAR) and Certificate of Compliance (CoC). There are four main parts of this request: first, demonstration of compliance with the current Part 71 regulations allowing an upgrade to “-96” status; second, incorporation of previous SAR amendments into a Consolidated SAR, Rev. 0; third, addition of fissile material to the authorized contents; and fourth, modification of the approval process for TRU wastes. The DOE has proposed plans to use the 10-160B to ship TRU waste from several small quantity generator sites with shipments in 2008 using the expanded fissile limits and modified waste approval process. In order to allow sufficient time for waste assessment and operational planning, we request the highest possible priority for review of this submittal with an issue date for the revised CoC of August 2008.

We request that you approve our proposed Consolidated SAR, Revision 0 and revise the CoC to reflect the following specific changes:

1. Change in Contents

EnergySolutions is revising the contents to include up to 325 fissile gram equivalent (FGE) of fissile material. Also, plutonium in excess of 20 Ci is required to be in solid form.

2. Drawing Changes

The SAR drawing has been revised to change several notes, the model number, and the title block from Duratek to EnergySolutions. Per NRC guidance, the drawing has been marked as “security-related sensitive information” and the SAR shows the drawing as being withheld from public disclosure. The drawing is

provided as Attachment 4 and is to be withheld from the public as security-related sensitive information. The deletion of CNS from the model number has been carried out throughout the SAR.

3. Revision of Thermal Analysis
EnergySolutions is revising Chapter 3 of the SAR to reflect the designed and fabricated composition of the thermal shield, i.e., carbon steel. The previous analysis was based on a stainless steel thermal shield.
4. Revision of Approval Process for TRU Waste
Appendix 4.10.2 is revised to give the user the responsibility for determining the acceptability of TRU waste from a particular site. The revision includes a requirement for a site specific evaluation performed against the payload parameter restrictions specified in Appendix 4.10.2, documentation of the evaluation in a TRU Payload Assessment, and approval of the waste acceptability by a 10-160B Payload Engineer. A suggested change to Condition 11 (c) (2) of the CoC is provided as Attachment 3.
5. Change in Shielding Analysis
The shielding analysis was revised to include a neutron source equivalent to 325 FGE and update the analysis using the SCALE programs.
6. Criticality Analysis
A criticality analysis was added, as Chapter 6, demonstrating compliance with Part 71 for a 325 FGE contents.
7. Compliance with Current Regulations
The packaging has been evaluated per the current regulations and meets the current requirements, including the requirements for fissile material. Thus, we request the identification number be changed to USA/9204/B(U)F-96. Attachment 2 to this submittal is a table listing the changes to 10CFR71 effective from October 1, 2004 to November 30, 2007, and a discussion of how each change has been addressed in the revised Consolidated SAR submitted with this application. As can be seen from this table, most of the changes to 10CFR71 have no impact on the 10-160B or the 10-160B SAR.
8. Consolidated SAR
The entire SAR is revised, from Revision 22, to consolidate all previously approved changes into Consolidated SAR, Revision 0 and to accommodate the changes noted above.

The changes noted above to SAR Revision 22 are provided as Attachment 1 with markings to aid in reviewing the changes. This attachment has margin bars identifying the location of changes, a double underline for new text, and “strikeout” for deleted text. Attachment 1 is not intended as a replacement for, or inclusion in, the current SAR. The current SAR, Rev. 22, is to be replaced, in its entirety, by the Consolidated SAR, Rev.0

provided as Attachment 5. The Consolidated SAR, Rev. 0 has no change markings but incorporates the changes noted above.

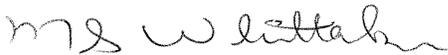
To allow a reasonable transition period to the new Identification Number and CoC, we request the following transition period be approved: Revision 12 of the CoC may be used and the packaging may be marked with Package Identification Number USA/9204/B(U)-85 until one year after the date of the approval of Revision 13 of the certificate. The packaging must be marked with Package Identification Number USA/9204/B(U)F-96 no later than one year and one day after the date of the approval of Revision 13 of the certificate. Any Package transporting fissile material must be marked with Package Identification Number USA/9204/B(U)F-96.

There are five attachments to this letter, as noted above. Each attachment is listed below:

- Attachment 1 Changes to revision 22 of the SAR, with changes labeled for the use of the reviewers.
- Attachment 2 10 CFR 71 Change Table
- Attachment 3 Suggested change to CoC
- Attachment 4 Drawing C-110-D-29003-010, Sheets 1 through 5, Rev. 14 (to be withheld as security-related sensitive information)
- Attachment 5 Consolidated SAR, Revision 0

Should you or members of your staff have questions about the responses, please contact Mark Whittaker at (803) 758-1898.

Sincerely,



for
Patrick L. Paquin
General Manager – Engineering and Licensing

Attachments: As stated