



Department of Energy

Washington, DC 20585

JAN 31 2007

ATTN: Document Control Desk,
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Document Control Desk:

The U.S. Department of Energy (DOE) requests an Amendment #3 to the Certificate of Compliance (CoC) USA/9315/B(U)F-96, model number ES-3100 shipping container. The following items are included in this amendment request for the consideration by the U.S. Nuclear Regulatory Commission:

- Revised definition of pyrophoricity as it applies to small uranium metal pieces shipped in the ES-3100,
- Addition of air transport capability for the ES-3100,
- Revised criticality safety calculations for all the authorized contents of the ES-3100,
- Revised Criticality Safety Index for the ES-3100,
- Revised quantity of off-gassing material that can be transported as packing material within the ES-3100 containment vessel, including adding a Teflon bottle as a convenience container for the uranyl nitrate crystal,
- Revised concentration of carbon in uranium shipped in the ES-3100,
- Revised concentration of the neptunium-237 in uranium shipped in the ES-3100,
- Specification of uranium alloyed with aluminum and molybdenum as contents of the ES-3100,
- Addition of uranium zirconium hydride as a specific content of the ES-3100, and
- Revision of the manufacturing specification for the neutron absorber material (277-4).



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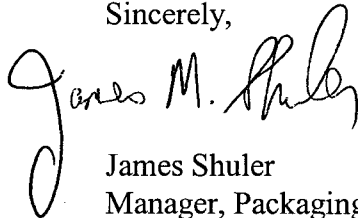
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DOE requests an expedited review of this amendment because the ES-3100 packaging will not be used until the new criticality safety analysis is approved, which is a large part of this amendment request.

This letter has two attachments. The first provides a detailed background for each of the items in this request. The first attachment also gives the location in the Safety Analysis Report (SAR) where each of these technical items is addressed. The second attachment is the ES-3100 SAR. This SAR version is Revision 1. Revision 1 incorporates the previous five series of change pages and also adds the information for this latest amendment. The information pertaining to this amendment request is highlighted in the text of the SAR. The original copy of this letter, without attachments is being sent to the Document Control Desk. Ten copies of the this letter with attachments, will be hand delivered to Kimberly J. Hardin, Project Manager, Licensing Branch, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards by a team from BWXT Y-12 shortly after this letter is sent.

If you have any questions, please contact me at 301-903-5513.

Sincerely,



James Shuler
Manager, Packaging Certification Program
Safety Management and Operations
Office of Environmental Management

Enclosure

cc:

Robert George, NA-261
Dana Willaford, DOE ORO
Steve Sanders, BWXT Y12
Jeff Arbital, BWXT Y12