

March 10, 2006

Dr. James M. Shuler  
Office of Licensing  
U.S. Department of Energy  
EM-24/CLV-1081  
1000 Independence Avenue, S.W.  
Washington, DC 20585-2040

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR MODEL NO. ES-3100  
PACKAGE

Dear Dr. Shuler:

By letter dated February 28, 2005, as supplemented on April 27, May 26, August 15, 2005, and February 6, 2006, the Department of Energy submitted an application to the U.S. Nuclear Regulatory Commission for approval of a new transport package for high enriched uranium, Model No. ES-3100.

In connection with the staff's review, we need the information identified in the enclosure to this letter. We request that you provide this information by March 27, 2006.

Please reference Docket No. 71-9315 and TAC No. L23818 in future correspondence related to this request. If you have any questions regarding this matter, I may be contacted at (301) 415-8500.

Sincerely,

/RA/

Shawn Williams, Project Engineer  
Licensing Section  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 71-9315  
TAC No. L23818

Enclosure: Request for Additional Information

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**Request for Additional Information**  
**Department of Energy**  
**Docket No. 71-9315**  
**Model No. ES-3100**

By letter dated February 28, 2005, as supplemented on April 27, May 26, August 15, 2005, and February 6, 2006, the Department of Energy submitted a Safety Analysis Report to the U.S. Nuclear Regulatory Commission (NRC) for approval of a new transport package, Model No. ES-3100. This request for additional information (RAI) identifies information needed by the NRC staff in connection with its review of the application.

Each individual RAI describes information needed by the staff for it to complete its review of the application and to determine whether the applicant has demonstrated compliance with the regulatory requirements.

The following information is needed to satisfy the safety requirements of 10 CFR 71.7.

- 1-1     Revise drawing M2E801580A037, Sheet 5 of 5, to include the O-ring groove depth in Detail Y.
- 1-2     Provide an additional licensing drawing to include the welded option for the containment vessel. Ensure the drawing includes:
  - (1)     the containment vessel codes and standards for fabrication, assembly, and testing; and,
  - (2)     the containment vessel weld design and inspection method.
- 1-3     Concerning the applicants response to RAI No. 2-10 from the February 6, 2006, submittal provide a current reference that includes the values of the O-ring spring constant as indicated on page 2-120 of the SAR.

In the applicants response to staff's RAI No. 2-10, "Provide in a footnote to page 2-120, the exact citation in the Parker Catalogue where Attachment A, 'O-ring spring constant,' can be found and verified," the reference provided (Parker Seals, "O-Ring Handbook," ORD-5700, Dec. 1977) could not be found by staff. Further, it is questionable as to whether the values in the 1977 edition are still applicable to current O-rings.
- 1-4     Concerning the applicants response to RAI No. 2-17, revise the wording from "certifying authority" to "regulatory authority."
- 1-5     Revise the column heading in Table 6.4 of the SAR to "Theoretical Density Input Parameter."

The column heading in Table 6.4 of the SAR has not been changed to "Theoretical Density Input Parameter" as indicated in the RAI 2-22 response.