

November 18, 2008

U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Attn: Document Control Desk

Subject: Supplemental Information to the Request for Authorization for One-Time Shipment of Irradiated THAR Fuel Elements in a 42 MTR Basket in the NAC-LWT Cask

Docket No. 71-9225

- Reference:
1. Safety Analysis Report (SAR) for the NAC Legal Weight Truck Cask, Revision 38, NAC International, November 2007 – as Supplemented
 2. Model No. NAC-LWT Package, U.S. Nuclear Regulatory Commission (NRC) Certificate of Compliance (CoC) No. 9225, Revision 49, October 10, 2008
 3. Request for Authorization for One-Time Shipment of Irradiated THAR Fuel Elements in a 42 MTR Basket in the NAC-LWT Cask, NAC International, November 4, 2008
 4. Request for Additional Information for Review of the Certificate of Compliance No. 9225, Revision for the Model No. NAC-LWT Package, TAC No. L24181, NRC, October 31, 2008

NAC International (NAC) hereby provides supplemental information in support of Reference 3 based on the NRC/NAC teleconference held on November 5, 2008.

THAR fuel elements are aluminum-based MTR elements with the fuel element being an aluminum-uranium composite with an aluminum clad. NAC has proposed as a response to the NRC ANSTO RAI (Reference 4) that all aluminum-based payloads (i.e., MTR, DIDO, and ANSTO fuels) will be transported in a leaktight containment shipping configuration. The leaktight containment seals applied in this configuration are the metallic cask lid seal and either the Alternate (Viton) or Alternate B (metallic) port covers. Chapters 1, 4, 7 and 8 of the NAC-LWT SAR were modified in the RAI response to apply the leaktight containment boundary to the aluminum-based payloads. NAC will apply the leaktight containment configuration, with either Alternate or Alternate B port cover seals, to the proposed THAR fuel element shipment.

Also, as requested by the NRC staff, NAC is providing the THAR fuel content criticality analysis input and output data files contained on CD media in support of the criticality considerations described in Reference 3.



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It is planned that the THAR fuel shipment will be performed in the summer of 2009. To support the shipment schedule and any unanticipated delays, the authorization is requested to be valid until December 31, 2009. In order to support shipment planning activities and necessary interaction with the appropriate Foreign Competent Authorities, NAC requests the authorization to be issued by January 16, 2009.

If you have any comments or questions, please contact me on my direct line at 678-328-1274. All requested information will be provided in a prompt manner.

Sincerely,



Anthony L. Patko
Director, Licensing
Engineering

Enclosure