

October 12, 2006

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

Attn: Document Control Desk

Subject: Submittal of Proposed Revised Wording for Revision 43 of Certificate of Compliance No. 9225 for the NAC-LWT Cask

Docket No. 71-9225

- References:
1. Model No. NAC-LWT Package, Certificate of Compliance (CoC) No. 9225, Revision 40, U.S. Nuclear Regulatory Commission (NRC), December 30, 2005
  2. Safety Analysis Report (SAR) for the NAC Legal Weight Truck Cask, Revision 37, NAC International (NAC), June, 2005
  3. Submittal of a Request for an Amendment of CoC No. 9225 for the NAC-LWT Cask to Incorporate as Approved Contents up to 32 Segmented TPBARs and Segmentation Debris in a Welded Waste Container, NAC, May 26, 2006
  4. Submittal of Supplemental Information to NAC's Request for an Amendment of CoC No. 9225 for the NAC-LWT Cask to Incorporate as Approved Contents Segmented TPBARs and Segmentation Debris in a Welded Waste Container, NAC, August 18, 2006
  5. Submittal of Additional Supplemental Information to NAC's Request for an Amendment of CoC No. 9225 for the NAC-LWT Cask to Incorporate as Approved Contents Segmented TPBARs and Segmentation Debris in a Welded Waste Container, NAC, August 22, 2006

In accordance with References 3, 4 and 5, NAC International (NAC) herewith submits proposed revised wording for Revision 43 of the Certificate of Compliance (CoC) No. 9225 for the NAC-LWT cask.

The proposed revised wording incorporates as approved contents up to 55 equivalent TPBARs as segments and segmentation debris placed within a welded waste container, updates 14 revised licensing drawings and changes the Alternate B port cover bolt torque requirement to 285 ± 15 inch-lbs as requested in Reference 3 and supplemented by References 4 and 5.

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Enclosed with this transmittal letter is a list of the proposed changes organized by page number and item number of CoC No. 9225, based on Revision 42 of the CoC.

Timely approval of the amendment request (Reference 3), as supplemented on August 18, 2006 (Reference 4) and August 22, 2006 (Reference 5), will permit the shipment of the proposed contents in the NAC-LWT cask in support of the tritium production program sponsored by U. S. DOE's National Nuclear Security Administration (NNSA).

If you have any comments or questions, please contact me on my direct line at 678-328-1274.

Sincerely,



Anthony L. Patko  
Director, Licensing  
Engineering

Enclosure

**Proposed Changes for Revision 43 of**  
**Certificate of Compliance No. 9225**  
**for the NAC-LWT Cask**

**Proposed Changes for Revision 43 of Certificate of Compliance No. 9225**  
**for the NAC-LWT Cask (changes are highlighted)**

Page No.	Description of Change
1-23	CoC heading – 1.b.: Revision Number <b>43</b> Remove previous revision bars throughout
1	5.(a)(2), Description, 3 <sup>rd</sup> sentence – change to read as follows: In addition, the cask may be used to transport metallic fuel rods, MTR and DIDO fuel assemblies and plates, individual PWR rods, high burnup PWR or BWR rods, TRIGA fuel elements, TRIGA fuel cluster rods, tritium-producing burnable absorber rods (TPBARs), <b>TPBAR segments and segmentation debris</b> , PULSTAR fuel elements, spiral fuel assemblies, and MOATA fuel plate bundles.
2	5.(a)(3)(i), Drawings – change the revision number for the following two drawings: <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-01, Rev. <b>6</b></span> <span>Cask Assembly</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-02, Rev. <b>19</b> (Sheets 1-2)</span> <span>Body Assembly</span> </div> 5.(a)(3)(ii), Drawings – change the revision number for the following three drawings: <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-048, Rev. <b>2</b></span> <span>42 MTR Element Cask Assembly</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-052, Rev. <b>2</b></span> <span>28 MTR Element Cask Assembly</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-079, Rev. <b>2</b></span> <span>TRIGA Fuel Cask Assembly</span> </div>
3	5.(a)(3)(ii), Drawings (continued) – change the revision number for the following seven drawings: <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-084, Rev. <b>3</b></span> <span>LWT Transport Cask Assy 140 TRIGA Elements</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-094, Rev. <b>3</b></span> <span>35 MTR Element Cask Assembly</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-104, Rev. <b>2</b> (Sheets 1-2)</span> <span>LWT Cask Assembly, PWR Transport Canister</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-111, Rev. <b>1</b></span> <span>LWT Transport Cask Assy DIDO Fuel</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-124, Rev. <b>1</b></span> <span>Transport Cask Assembly, General Atomics IFM, LWT Cask</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-125, Rev. <b>3</b> (Sheets 1-3)</span> <span>Transport Cask Assembly, Framatome/EPRI, LWT Cask</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-127, Rev. <b>2</b> (Sheets 1-2)</span> <span>Spacer Assembly, TPBAR Shipment</span> </div>
4	5.(a)(3)(ii), Drawings (continued) – change the revision number for the following drawing: <div style="display: flex; justify-content: space-between; margin-left: 40px;"> <span>LWT 315-40-133, Rev. <b>1</b> (Sheets 1-2)</span> <span>Transport Cask Assembly, PULSTAR Shipment, LWT Cask</span> </div>

**Proposed Changes for Revision 43 of Certificate of Compliance No. 9225  
for the NAC-LWT Cask (changes are highlighted) (cont'd)**

Page No.	Description of Change
14	<p>5.(b)(1), Type and form of material (continued) – add new text as follows:</p> <p>(xv) Segmented TPBARs and associated segmentation debris resulting from post-irradiation examination (PIE), as described in Section 1.2.3.6 of the application. Each equivalent TPBAR contains a maximum of 1.2 grams of tritium. The minimum cool time is 90 days.</p>
19	<p>5.(b)(2), Maximum quantity of material per package (continued), (xiii) – change as follows:</p> <p>(xiii) For TPBARs as described in Item 5.(b)(1)(xii):</p> <p><b>Up to</b> 300 TPBARs ... volume of 300 TPBARs.</p>
20	<p>5.(b)(2), Maximum quantity of material per package (continued) – add new text as follows:</p> <p>(xvi) For segmented TPBARs as described in Item 5.(b)(1)(xv):</p> <p>Up to 55 equivalent TPBARs as segments and segmentation debris, placed within a welded waste container, as shown in Figure 1.2-14 of the application. The maximum decay heat is 2.31 watts per equivalent TPBAR and 127 watts per package. The maximum weight of the segmented TPBARs and the TPBAR waste container is 700 pounds.</p> <p>Item 8, Bolt torque – change last sentence to read as follows:</p> <p>The bolts used to secure the Alternate B port covers must be torqued to <b>285 ± 15</b> inch-lbs.</p>
21	<p>Item 10(c) – change last sentence to read as follows:</p> <p>The cask cavity must be backfilled with 1.0 atm of helium when shipping PWR or BWR assemblies, <b>individual PWR and BWR rods, or TPBAR contents.</b></p> <p>Item 12 – change 2<sup>nd</sup> sentence to read as follows:</p> <p>Shipments of MTR, DIDO fuel assemblies, TRIGA fuel elements, TRIGA fuel cluster rods, individual PWR rods, high burnup PWR or BWR rods, <b>TPBAR contents</b>, PULSTAR fuel elements, spiral fuel assemblies, or MOATA plate bundles must use the ISO container or a personnel barrier.</p>

**Proposed Changes for Revision 43 of Certificate of Compliance No. 9225  
for the NAC-LWT Cask (changes are highlighted) (cont'd)**

Page No.	Description of Change
<p align="center">21 (cont'd)</p>	<p>Item 14 – change to read as follows:</p> <p>14. For shipment of <b>TPBAR contents</b>:</p> <ul style="list-style-type: none"> <li>(a) Prior to first use for shipment of <b>TPBAR contents</b>, each packaging must be hydrostatic pressure tested to 450 +15/-0 psig, as described in Section 8.1.2 of the application;</li> <li>(b) The package must be marked with Package Identification Number USA/9225/B(M)-96;</li> <li>(c) The package must be configured as shown in NAC International Drawing No. 315-40-128, Rev. <b>2</b>, for the applicable <b>TPBAR contents</b>; and</li> <li>(d) Prior to each shipment, after loading, each cask containment seal must be tested to show no leakage greater than <math>2 \times 10^{-7}</math> std-cm<sup>3</sup>/s (helium).</li> </ul>
<p align="center">22</p>	<p>Item 18 is changed to read as follows:</p> <p>18. Revision <b>42</b> of this certificate may be used until <b>TBD</b>.</p>
<p align="center">23</p>	<p>Supplements dated: December 15, 2005, April 17, 2006, <b>May 26, 2006</b>, June 9 and June 15, 2006, <b>August 18 and August 22, 2006</b>, and <b>October 12, 2006</b>.</p>