

March 14, 2013

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

Attn: Document Control Desk

Subject: Submission of NAC Responses to NRC's Request for Supplemental Information to NAC Amendment Request for Certificate of Compliance (CoC) No. 9225 for the NAC-LWT Cask to Incorporate Highly Enriched Uranyl Nitrate Liquid (HEUNL) as Authorized Content

Docket No. 71-9225

- Reference:
1. Model No. NAC-LWT Package, U.S. Nuclear Regulatory Commission (NRC) Certificate of Compliance (CoC) No. 9225, Revision 58, February 28, 2013
  2. Safety Analysis Report (SAR) for the NAC Legal Weight Truck Cask, Revision 41, NAC International, April 2010
  3. ED20120149, Submission of a Request for an Amendment of Certificate of Compliance (CoC) No. 9225 for the NAC-LWT Cask to Incorporate Highly Enriched Uranyl Nitrate Liquid (HEUNL) as Authorized Content, December 28, 2012
  4. NRC Letter, Application for Amendment to the Model No. NAC-LWT – Supplemental Information Needed, January 31, 2013

NAC International (NAC) hereby submits responses to Reference 4. This submittal includes one proprietary and non-proprietary version of this submittal package, including this transmittal letter and Revision LWT-13B changed pages to the Reference 2 SAR and Reference 3 changed pages. The changed pages incorporate changes made in response to Reference 4 and an additional change to SAR Chapter 6, Section 6.4.3.12 and Table 6.4.3-21.

An additional change is being made to the generic MTR fuel height requirement and allows an active fuel height of less than 56 cm. The change to the MTR fuel height requirement is also reflected in the proposed CoC changes, specifically, the addition of Note 3 under Table 5.(b)(1)(iv)(b) "Generic MTR Fuel Content Description". Minimum active fuel heights were determined in SAR Chapter 6, Section 6.4.3.12 as a result of analysis that determined an increase in reactivity for a fixed fuel mass per plate/assembly at reduced active fuel heights (i.e., reduction in H/U ratio for the under-moderated plates was insufficient to overcome reduced neutron leakage). Maintaining the effective fissile material linear density ( $g^{235}\text{U}/\text{cm height}$ ) in the plates assures that the existing analysis remains bounding.

U.S. Nuclear Regulatory Commission  
March 14, 2013  
Page 2

Enclosure 2 contains a brief summary of the changes to the SAR for the LWT-13B SAR changed pages. Consistent with NAC administrative practice, this proposed SAR revision is numbered to uniquely identify the applicable changed pages. Revision bars mark the SAR text changes on the Revision LWT-13B pages. This submittal includes 4 revised license drawings. Enclosure 3 to this transmittal letter lists all drawing changes in detail. The included List of Effective Pages identifies the current revision level of all pages in the Reference 2 SAR.

In order to better facilitate the review process, NAC is providing the Revision LWT-13B change pages with appropriate backing pages. Consequently, a number of Revision 41 pages and Reference 3 Revision LWT-12E changed pages are included. In accordance with NAC's administrative practices, upon final acceptance of this application, the LWT-12E and 13B changed pages will be reformatted and incorporated into the next revision of the NAC-LWT SAR.

In this amendment request, the proposed changes to the authorized contents are described in Chapter 1. The structural, thermal, containment, shielding and criticality evaluations documenting the suitability of the NAC-LWT packaging for the requested content are presented in SAR Chapters 2, 3, 4, 5 and 6, respectively. Chapter's 7 and 8 have also been revised to address the operational & loading requirements and fabrication acceptance testing.

Enclosure 4 to this transmittal letter includes the requested changes to Reference 1. Approval of this HEUNL amendment is requested by August 1, 2013, to support obtaining an updated US DOT Competent Authority Certificate, Foreign Validation and the associated shipping schedules.

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

Sincerely,

 *W. Fowler* for  
T. Patko

Anthony L. Patko  
Director, Licensing  
Engineering

Enclosures:

U.S. Nuclear Regulatory Commission  
March 14, 2013  
Page 3

- Enclosure 1 – RSI & Observation Responses and Supporting References No. 9225 for the NAC-LWT Cask, NAC-LWT SAR, Revision LWT-13B, HEUNL Amendment
- Enclosure 2 – List of Changes, NAC-LWT SAR, Revision LWT-13B, HEUNL Amendment – RSI Responses
- Enclosure 3 – List of Drawing Changes, NAC-LWT SAR, Revision LWT-13B, HEUNL Amendment
- Enclosure 4 – Supporting Calculations, NAC-LWT SAR, Revision LWT-13B, HEUNL Amendment
- Enclosure 5 – Proposed Changes for Revision 58 of Certificate of Compliance No. 9225 for the NAC-LWT Cask, NAC-LWT SAR, Revision LWT-13B, HEUNL Amendment
- Enclosure 6 – SAR Page Changes and LOEP, No. 9225 for NAC-LWT SAR, Revision LWT-13B, HEUNL Amendment

George Carver (Affiant), Vice President, Engineering, of NAC International, hereinafter referred to as NAC, at 3930 East Jones Bridge Road, Norcross, Georgia 30092, being duly sworn, deposes and says that:

1. Affiant has reviewed the information described in Item 2 and is personally familiar with the trade secrets and privileged information contained therein, and is authorized to request its withholding.
2. The information to be withheld includes the following NAC Proprietary Information that is being provided to support the technical review of NAC's Request for a Certificate of Compliance (CoC) (No. 9225) for the NAC International Legal Weight Truck (LWT) Transport Cask.
  - NAC RSI Responses
    - Pages 4, 10, 14 and 15 of 15
  - NAC Observation Responses
    - Pages 4, 9 and 10 of 10
  - NAC RSI and Observation Responses Supporting References
    - 153-109440-REPT-001, Rev. 1
  - NAC International Proprietary Calculations
    - 65008500-2010, "Canister Structural Evaluation for HEUNL in the NAC LWT"  
(Data Disks 1 thru 1)
    - Sample Criticality Input/Output Files (Data Disks 1 thru 1)
    - Thermal ANSYS Input/Output Files (Data Disks 1 thru 1)
  - NAC-LWT SAR, Revision 13B, – Proprietary Version, including:
  - NAC International Proprietary License Drawings
    - 315-40-180, Revision 1P – LWT TRANSPORT CASK ASSEMBLY, HEUNL CONTENTS
    - 315-40-181, Revision 1P – CONTAINER ASSEMBLY, HEUNL
    - 315-40-182, Revision 1P – CONTAINER SPACER, HEUNL
    - 315-40-183, Revision 1P – CONTAINER GUIDE, HEUNL

NAC is the owner of the information contained in the above documents. Thus, all of the above identified information is considered NAC Proprietary Information.

3. NAC makes this application for withholding of proprietary information based upon the exemption from disclosure set forth in: the Freedom of Information Act ("FOIA"); 5 USC Sec. 552(b)(4) and the Trade Secrets Act; 18 USC Sec. 1905; and NRC Regulations 10 CFR Part 9.17(a)(4), 2.390(a)(4), and 2.390(b)(1) for "trade secrets and commercial financial information obtained from a person, and privileged or confidential" (Exemption 4). The information for which exemption from disclosure is herein sought is all "confidential commercial information," and some portions may also qualify under the narrower definition of "trade secret," within the meanings assigned to those terms for purposes of FOIA Exemption 4.
4. Examples of categories of information that fit into the definition of proprietary information are:
  - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by competitors of NAC, without license from NAC, constitutes a competitive economic advantage over other companies.

- a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by competitors of NAC, without license from NAC, constitutes a competitive economic advantage over other companies.
- b. Information that, if used by a competitor, would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality or licensing of a similar product.
- c. Information that reveals cost or price information, production capacities, budget levels or commercial strategies of NAC, its customers, or its suppliers.
- d. Information that reveals aspects of past, present or future NAC customer-funded development plans and programs of potential commercial value to NAC.
- e. Information that discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information that is sought to be withheld is considered to be proprietary for the reasons set forth in Items 4.a, 4.b, and 4.d.

5. The information to be withheld is being transmitted to the NRC in confidence.
6. The information sought to be withheld, including that compiled from many sources, is of a sort customarily held in confidence by NAC, and is, in fact, so held. This information has, to the best of my knowledge and belief, consistently been held in confidence by NAC. No public disclosure has been made, and it is not available in public sources. All disclosures to third parties, including any required transmittals to the NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements, which provide for maintenance of the information in confidence. Its initial designation as proprietary information and the subsequent steps taken to prevent its unauthorized disclosure are as set forth in Items 7 and 8 following.
7. Initial approval of proprietary treatment of a document/information is made by the Vice President, Engineering, the Project Manager, the Licensing Specialist, or the Director, Licensing – the persons most likely to know the value and sensitivity of the information in relation to industry knowledge. Access to proprietary documents within NAC is limited via “controlled distribution” to individuals on a “need to know” basis. The procedure for external release of NAC proprietary documents typically requires the approval of the Project Manager based on a review of the documents for technical content, competitive effect and accuracy of the proprietary designation. Disclosures of proprietary documents outside of NAC are limited to regulatory agencies, customers and potential customers and their agents, suppliers, licensees and contractors with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
8. NAC has invested a significant amount of time and money in the research, development, engineering and analytical costs to develop the information that is sought to be withheld as proprietary. This information is considered to be proprietary because it contains detailed descriptions of analytical approaches, methodologies, technical data and/or evaluation results not available elsewhere. The precise value of the expertise required to develop the proprietary information is difficult to quantify, but it is clearly substantial.
9. Public disclosure of the information to be withheld is likely to cause substantial harm to the competitive position of NAC, as the owner of the information, and reduce or eliminate the availability

of profit-making opportunities. The proprietary information is part of NAC's comprehensive spent fuel storage and transport technology base, and its commercial value extends beyond the original development cost to include the development of the expertise to determine and apply the appropriate evaluation process. The value of this proprietary information and the competitive advantage that it provides to NAC would be lost if the information were disclosed to the public. Making such information available to other parties, including competitors, without their having to make similar investments of time, labor and money would provide competitors with an unfair advantage and deprive NAC of the opportunity to seek an adequate return on its large investment.

STATE OF GEORGIA, COUNTY OF GWINNETT

Mr. George Carver, being duly sworn, deposes and says:


That he has read the foregoing affidavit and the matters stated herein are true and correct to the best of his knowledge, information and belief.

Executed at Norcross, Georgia, this 14th day of March, 2013.



George Carver  
Vice President, Engineering  
NAC International

Subscribed and sworn before me this 14th day of March, 2013.



Notary Public

