

March 2012

Revision LWT-12B

NAC-LWT

Legal Weight Truck Cask System

SAFETY ANALYSIS REPORT

Docket No. 71-9225



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March 2, 2012

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

Attn: Document Control Desk

Subject: Submission of a Supplement to the Request for an Amendment of Certificate of Compliance (CoC) No. 9225 for the NAC-LWT Cask to Incorporate SLOWPOKE fuel 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 55, March 23, 2010
 2. Safety Analysis Report (SAR) for the NAC Legal Weight Truck Cask, Revision 41, NAC International, April 2010
 3. ED20120023, Submission of a Request for an Amendment of Certificate of Compliance (CoC) No. 9225 for the NAC-LWT Cask to Incorporate SLOWPOKE fuel as Authorized Content, NAC International, February 3, 2012

NAC International (NAC) hereby submits a supplement to Reference 3 based on the discussions during the February 23, 2012 post submission public meeting. The supplemental information is provided in the form of NAC-LWT SAR, Revision LWT-12B changed pages and include the following:

- Two (2) revised license drawings
 - 315-40-106, Rev. 2, MTR Plate Canister, LWT Cask (not SLOWPOKE-related)
 - 315-40-156, Rev. 2, Canister Assembly, SLOWPOKE Fuel

Note: Please refer to Attachment 2 for a detailed description of the drawing changes

- Updated List of Drawings in Chapter 1, Page 1-iv;
- Removed reference to “pellets” related to SLOWPOKE fuel on Page 1.2-19
- Revised Figures 1.2.3-19 and 5.3.20-1 removing unnecessary dimensions
- Revised Section 5.3.20.1 by adding a detailed description of the modified parameters for SLOWPOKE fuel and their effect on the source terms

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No change was made to any reference to metallic fuel contents of the NAC-LWT as it refers to an already authorized content. Also, no change was made to Chapter 7 as the procedure for loading the AECL SLOWPOKE fuel rod contents into the SLOWPOKE fuel canister is already included in Section 7.1.14 in the NAC-LWT SAR, Revision LWT-12A.

This submittal includes two copies of this transmittal letter and Revision LWT-12B changed pages to the Reference 2 SAR. The changed pages incorporate the supplemental information for the requested amendment. Attachment 1 contains a brief summary of the additional changes to the SAR for the amendment. 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-12B pages.

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-12B change pages with appropriate backing pages. Consequently, a number of Revision LWT-12A pages are included. In accordance with NAC's administrative practices, upon final acceptance of this application, the LWT-12A and -12B changed pages will be reformatted and incorporated into the next revision of the NAC-LWT SAR.

Attachment 3 to this transmittal letter includes additional requested changes to Reference 1.

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

- Attachment 1 – List of Changes, NAC-LWT SAR, Revision LWT-12B, SLOWPOKE Amendment
- Attachment 2 – List of Drawing Changes, NAC-LWT SAR, Revision LWT-12B, SLOWPOKE Amendment
- Attachment 3 – Proposed Changes for Revision 56 of Certificate of Compliance No. 9225 for the NAC-LWT Cask, NAC-LWT SAR, Rev. 12B, SLOWPOKE Amendment

Enclosure

Attachment 1

List of Changes

NAC-LWT SAR, Revision LWT-12B

SLOWPOKE Amendment

List of Changes, NAC-LWT SAR, Revision LWT-12B

Note: The List of Effective Pages and the Chapter Tables of Contents, including the List of Figures and the List of Tables, were revised as needed to incorporate the following changes.

Chapter 1

- Page 1-iv, updated drawing revision numbers for drawings 315-40-106 and 315-40-156 to “Rev 2”
- Page 1.2-19, removed statement “SLOWPOKE fuel pellets” and replaced with “SLOWPOKE fuel pieces”.
- Page 1.2-38, Figure 1.2.3-19 was updated to remove SLOWPOKE fuel rod dimensions that are not necessary.

Chapter 5

- Page 5.3.20-1, three bullets were added to provide a description on how the modified parameters affect the source term.
- Page 5.3.20-2 thru 5.3.20-4, text was shifted due to insertion of bullets on page 5.3.20-1. No text changes were made.
- 5.3.20-5, Figure 5.3.20-1 was updated to remove SLOWPOKE fuel rod dimensions that were not used in the analysis.

Attachment 2

List of Drawing Changes

NAC-LWT SAR, Revision LWT-12B

SLOWPOKE Amendment

Drawing 315-40-106, MTR Plate Canister, LWT Cask, Revision 2

1. All sheets, revised scale factor in “Scale” box to N.T.S. and deleted word “NOTED” in “Weight” box.

Sheet 1:

2. Replaced border and title block with newer version.
3. Zone B-5, deleted weight from assembly 99 call out
4. Revised delta note 1 to “ENGRAVE APPROXIMATELY AS SHOWN. LETTERS .5 HIGH X .03 MAS DEEP, FILL WITH BLACK WETHER RESISTANT PAINT. “#” SERIALIZES THE COMOPNENT. “#” SHALL BE SPECIFIED AS 01-999. “XX” TO BE AS MEASURED AT FINAL ASSEMBLY. “YY” TO BE SPECIFIED IN THE FABRICATION SPECIFICATION, BUT SHALL BE LESS THAN OR EQUAL TO 30 POUNDS.”; **was** “ENGRAVE APPROXIMATELY AS SHOWN. LETTERS .5 HIGH X .03 MAX DEEP, FILL WITH BLACK WEATHER RESISTANT PAINT. “##” SERIALIZES THE COMPONENT. “##” SHALL BE SPECIFIED AS 01-99. “XX” TO BE AS MEASURED AT FINAL ASSEMBLY. “YY” TO BE SPECIFIED IN THE FABRICATION SPECIFICATION, BUT SHALL BE LESS THAN OR EQUAL TO 30 POUNDS.” and Zone C3, revised serial number designation to “315-391-106-#”; **was** “315-391-106-##”.
5. Changed material for items 1, 2 and 3 to “ALUM 6061-T651”; **was** “ALUM 6061-T6511”.

Sheet 2:

6. Zone D-3, changed serial number designation to 315-391-106-#, **was** 315-391-106-##
7. Zone A-6, deleted scale callout in item 4 label callout **was** “SCALE: 4/1”.

Drawing 315-40-156, Canister Assembly SLOWPOKE Fuel

Sheet 1:

1. B.O.M. Item 1, deleted Qty. “1” **from** assy. 98
2. B.O.M. Items 2, 3 and 4, moved Qty. from assy. 97 **to** 98
3. B.O.M. Item 17, revised Qty. to “2” **was** “4”

Attachment 3

Proposed Changes for Revision 56 of Certificate of Compliance

No. 9225 for NAC-LWT Cask

NAC-LWT SAR, Revision LWT-12B

SLOWPOKE Amendment

Drawings (revised)

CoC Page 3 of 31:

LWT 315-40-106, Rev. 1 to Rev. 2

CoC Page 4 of 31:

LWT 315-40-156, Rev. 2 (Sheets 1-4)
“Canister Assembly SLOWPOKE Fuel”