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February 13, 2015

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

Attention: Document Control Desk

Subject: Submission of Information in Support of Request for Approval for LWT

Non-Conforming Hardware

Docket 71-9225

References: 1. USNRC CoC No. 9225, Revision 61, Model No. NAC-LWT Package, Dated December 24, 2014

- 2. NRC Letter, Extension of Authorization for a One-Time Shipment of the Dounreay Fuel Contents in the Model No. NAC-LWT Package (TAC No. L24756), November 6, 2013
- 3. ED20140127, Request for Timely Renewal of U.S. Nuclear Regulatory Commission (NRC) Certificate of Compliance (CoC) No. 9225 and for Approval to Use Hardware Used to Transport NRU/NRX Fuel that has Nondestructive Examination Related Non-Conformances, November 25, 2014
- 4. ED20150007, Submission of Information in Support of Request for Approval for LWT Non-Conforming Hardware, January 23, 2015
- 5. ED20150025, Submission of Information in Support of Request for Approval for LWT Non-Conforming Hardware, February 4, 2015

Via Reference 3 NAC requested approval to use transport hardware that has a known non-conformance with one NRU/NRX license drawing due to a technician that performed nondestructive examination (i.e. weld Visual Testing, VT) on hardware that will be used for NRU/NRX fuel transport who had been improperly certified by an NAC fabricator. Reference 3 included a list of the affected hardware, which was five of six completed NRU/NRX baskets, and the affected welds for each.

Subsequent to the request, teleconferences were held between the NRC and NAC on January 22 and February 10, 2015 to further discuss the details of the condition. Following the January 22 teleconference, NAC submitted additional information related to the non-conformances via References 4 and 5. Reference 4 included weldment configuration documentation, a Columbiana Hi Tech (CHT) report on the examiner whose certification was called into question, and that individual's certification record. Reference 5 included VT re-examination results that were performed on three NRU/NRX baskets that were currently at CHT and the original load test procedure and post load test VT and liquid penetrant (PT) results for all five affected baskets. Note, the improperly certified NDE technician did not perform any work on the sixth NRU/NRX basket fabricated by CHT.

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This information was further discussed on February 10, 2015 via a teleconference. On the call it was clarified that the Reference 5 submission did not include VT re-examination results for NRU/NRX basket S/N 315-391-173-01 because all the affected welds were inaccessible. In addition one of the five affected NRU/NRX baskets, which was basket S/N 315-391-173-03, was the only other basket that had accessible welds that hadn't been re-examined. This was because it wasn't at CHT at the time. However, re-examination of accessible welds on S/N 315-391-173-03 was completed on February 12, 2015 by an ASNT certified Level III inspector with NAC Quality Assurance oversight, with no negative issues noted.

The following is a summary of the non-conformance, actions taken, and proposed change to the LWT CoC to add a condition that allows an exception to the VT requirement presented on the license drawing for the affected NRU/NRX baskets.

License drawing 315-40-173, Rev. 2, Note 9, requires VT examination per ASME Section V, Articles 1 and 9 for the NRU/NRX basket weldment. Due to a misrepresentation of prior training and experience, the examiner who performed the VT examination at CHT was improperly certified for performing VT examinations per Section V. Thus, the examinations he performed did not meet the requirement on the license drawing. This resulted in five NRU/NRX baskets being fabricated out of compliance with Note 9 per the license drawing. See Attachment 2 for the list of affected hardware serial numbers and weld joints. The position of the weld joints are graphically shown in Attachment 3. A report from CHT on the improper certification is in Attachment 4 and the individual's improper certification record is in Attachment 5.

NAC considers the examiner to be "qualified" to do the work as he demonstrated his competency for VT by successful completion of all other required certification prerequisites including written general and specific examinations, a practical demonstration of his competency in that discipline and a visual acuity examination. Since he was improperly "certified" per the code, re-examination of accessible affected welds were performed at CHT and at NAC's transport cask staging subcontractor (ALARON) in Wampum, PA. Attachment 6 contains the re-examination record and the qualified examiners certification for basket S/N 315-391-173-03, which was performed at ALARON. The re-examination record and qualified examiners certification record for S/N's 315-391-173-04 thru -06 are in Attachment 7. Note, basket S/N 315-391-173-01 was at CHT but not re-examined because all affected welds were inaccessible.

In addition to the re-examination efforts and the information provided to demonstrate the examiner was "qualified" to do the work, NAC has provided the original load test procedure and post load test VT and PT results for all five affected baskets. The procedure and results are in Attachment 8. The certified examiner who performed the re-examinations at CHT was also the examiner who performed the post load test PT and VT examinations.



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Due to the extent and diversity of information provided regarding the acceptability of the work the improperly certified examiner performed, NAC is requesting a condition be added to the renewed CoC that would allow the affected NRU/NRX baskets to be used in a licensed shipment even though they are not in compliance with Note 9 of license drawing 315-40-173, Rev. 2. The following is the proposed CoC condition:

"NRU/NRX basket weldment serial numbers (S/N's) 315-391-173-01 and -03 thru 06 are authorized for use with exception to the requirement presented in License Drawing 315-40-173, Rev. 2, Note 9. No other NRU/NRX basket weldments are authorized for use with exception to this requirement."

The documents in Attachments 3 thru 8 contain information considered by NAC to be proprietary and are enclosed in a separate sealed envelope labeled "NAC PROPRIETARY INFORMATION". In accordance with 10 CFR 2.390, an affidavit executed by Mr. George Carver, VP Engineering and Licensing, NAC International, is also included. If you have any questions regarding this letter, please feel free to contact me on my direct number at 678-328-1236.

Sincerely,

Wren Fowler Director, Licensing Engineering

#### Attachments

Attachment 1 - NAC International Affidavit Pursuant 10 CFR 2.390

Attachment 2 - List of Affected Hardware and License Drawing

Attachment 3 - NRU/NRX Basket Weldment Configuration Documentation

Attachment 4 - Columbiana Hi Tech Report CHT-14-001

Attachment 5 - NDT Personnel Certification Record (Improper Certification)

Attachment 6 - NRU/NRX Basket Weldments VT Re-examination Results (S/N 315-391-173-03)

Attachment 7 - NRU/NRX Basket Weldments VT Re-examination Results (S/N's 315-391-173-04 thru -06)

Attachment 8 - CHT Load Test Procedure and Post Load Test VT and PT Results (S/N's 315-391-173-01 and -03 thru -06)

## **Attachment 1**

NAC International Affidavit Pursuant 10 CFR 2.390

George Carver (Affiant), VP Engineering and Licensing, 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 LWT Transport Package.
  - ED20150032, Attachments 3 thru 8

NAC is the owner of the information contained in the above document. 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.
  - 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 13th day of Jebruary, 2015.

George Carver

VP Engineering and Licensing

NAC International

Subscribed and sworn before me this 13<sup>th</sup> day of Gebruary, 2015.

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# **Attachment 2**

List of Affected Hardware and License Drawing

## List of Affected Licensed Hardware and License Drawing

### List of Affected Licensed Hardware

- 1. NRU/NRX Basket Weldments
  - License Drawing No. 315-40-173
  - Serial Nos. 315-391-173-01, -03 thru -06
  - Affected Welds Joint 8 for 315-391-173-01 and Joints 1, 2, 3, 4, 5A, & 5B for 315-391-173-03 thru -06

### **List of Affected License Drawings**

- 1. 315-40-173, Revision 2, Basket Weldment, NRU/NRX
  - Note 9, "VISUALLY INSPECT (VT) ALL WELDS PER ASME SECTION V, ARTICLES 1 & 9. ACCEPTANCE CRITERIA PER SECTION III, NG-5360"