

October 15, 2004

ATTN: Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Follow-up Report to NAC International 10 CFR 71.95 Communication of
Presence of Water in Cask Cavity, July 22, 2004

References: 1. Certificate of Compliance (CoC) No. 9225, Revision 37, April 1, 2004
2. Report per Requirements of 10 CFR 71.95
Presence of Water in Cask Cavity, NAC, July 22, 2004

Docket No.: 71-9225

Gentlemen:

In Reference 2, NAC International (NAC) notified the U.S. Nuclear Regulatory Commission (NRC) of two instances where freestanding liquid was observed in the cask cavity upon unloading a shipment of spent fuel from NAC-LWT casks at Idaho National Laboratory. Since the noted condition deviated from a requirement of Reference 1, NAC reported the above incidents to the NRC under 10 CFR 71.95 (c).

This letter is submitted as a follow-up to update the NRC of the results and findings of NAC's subsequent investigation and corrective actions taken and planned to prevent recurrence of the condition.

INVESTIGATION / ROOT CAUSE ANALYSIS

NAC conducted a thorough investigation following the reported incidents. The purpose of the investigation was two-fold: (1) Determine the actual quantity of freestanding liquid found in the affected NAC-LWT casks and analyze its potential effect on the safe performance of the package during normal conditions of transport and in hypothetical accident scenarios and (2) Define the root cause of the reported condition and develop an action plan to prevent recurrence.

The volume of the water collected from each cask prior to a subsequent cask deployment was less than 0.5 liter. A pressure evaluation performed for 0.5 liter of water in the specific transport configurations identified the upper bound pressure for the worst-case condition developed from the residual water to be enveloped by the analyses in the

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NAC LWT Safety Analysis Report (SAR). It was determined that the residual water did not and would not have caused the affected casks to operate under unanalyzed conditions (normal or accident).

As part of NAC's in-house Quality Assurance Program, a Corrective Action Report (CAR) was developed that required, among other things, performance of a Root Cause Analysis (RCA). Additionally, the CAR required an action plan to prevent recurrence of the reported incidents. The RCA included review of associated documentation and interview of key personnel. While the RCA found the operating procedures in the LWT SAR to be adequate, it also resulted in recommendations prompting review and revision of the NAC sub-tier cask operating procedure for enhancement.

ACTIONS TO PREVENT RECURRENCE

Immediate preventive actions taken resulted in institution of required oversight/peer review of all loading and drying processing activities, application of state-of-the-art measuring equipment for vacuum monitoring and implementation of enhanced documentation requirements (operating traveler) to record process step completion. These measures were implemented prior to any subsequent use of a NAC LWT cask.

For the long-term enhancement of NAC's LWT cask related operations, NAC is in the process of conducting additional specific training for LWT cask operating personnel, issuing a formal protocol for routine field communication during loading, drying and unloading activities and developing site specific default procedures for use when cask loading/drying/unloading are performed by NAC personnel rather than site licensee personnel.

SUMMARY

Implementation of the immediate and long term actions to prevent recurrence and continued close monitoring of loading and drying operations of the LWT casks provide assurance for full compliance to the CoC conditions for future shipments. Since the reported condition had no effect on the safe performance of the package, the NAC Corrective Action Report will be closed in accordance with the NAC QA program after completion of its specified enhancement actions.



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Should you require additional information regarding NAC's investigation/corrective actions, please contact me at 678-328-1321.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Andy L. Parks for'.

Thomas C Thompson
Director, Licensing
Engineering

cc: Idaho National Laboratory