

December 23, 2009

Mr. Anthony L. Patko
Director, Licensing Engineering
NAC International, Inc.
3930 East Jones Bridge Road, Suite 200
Norcross, GA 30092

SUBJECT: REQUEST FOR SUPPLEMENTAL INFORMATION TO REQUEST FOR
ADDITIONAL INFORMATION NO. 1 TO AMENDMENT REQUEST NO. 6 TO
CERTIFICATE OF COMPLIANCE NO. 1025

Dear Mr. Patko:

By letter dated January 16, 2009 (ML090270151), as supplemented February 11, 2009 (ML090490720), April 1, 2009 (ML090960575), and April 30, 2009 (ML091250187), NAC International, Inc. (NAC) submitted an application to amend Certificate of Compliance (CoC) No. 1025 and Technical Specifications in accordance with 10 CFR Part 72. This amendment proposes to modify the NAC-MPC storage system to incorporate Dairyland Power Cooperative (DPC) La Crosse Boiling Water Reactor (LACBWR) spent fuel assemblies as approved contents. The DPC contents would consist of undamaged Exxon fuel assemblies; damaged Exxon and Allis Chalmers fuel assemblies and/or fuel debris; and zirconium alloy shroud compaction debris stored with undamaged and damaged fuel assemblies. The designation for the DPC storage system is MPC-LACBWR.

By letter dated June 26, 2009 (ML091760887), the NRC issued the initial request for additional information (RAI). The NAC RAI response (letter dated September 22, 2009, ML092680315) was inadequate in two areas: structural and shielding. The staff has determined that the information listed below is needed to complete its technical review.

RAI 3.3

3.A.4.4.1.1 MPC-LACBWR Canister Analysis. Clarify Safety Analysis Report Figure 3.A.4.4.1-2, Detail A, by providing appropriate section annotations indicating the stress reporting summary for the upper left corner for the inner ring.

Sufficient details and description of the modeling approach used for evaluating stress performance of the canister closure redundant sealing configuration are lacking. This information is required to evaluate compliance with 10 CFR 72.236(b).

NAC did not provide section annotations or a full stress reporting summary for the upper left corner of the inner ring. NAC provided a technical discussion as to why that weld region of the inner ring was not bounding, and as part of the evaluation presented stress values for a single loading case to demonstrate that this weld region was not bounding.

The staff is unable to draw a conclusion based on NAC's submittal because it was incomplete as a basis for making a safety finding. To satisfy this RAI, NAC can do the following:

- a) Provide appropriate section annotations indicating the stress reporting summary for the upper left corner for the inner ring, or
- b) Provide a complete comparison of all stresses and load combinations that illustrate conclusively that the inner ring weld is bounded by the outer weld to the package canister shell as part of this RAI response. The note added to 3.A.4.4.1-2 can remain to indicate that the reporting locations presented are bounding.

This information is required to evaluate compliance with 10 CFR 72.236(b).

RAI 5.1

Provide supplemental information demonstrating that the evaluated loading pattern (Figure 5.A.1-1) is conservative or revise the loading pattern allowed in Figure B.2-3 such that the current shielding analysis is bounding.

The staff previously requested information justifying that the loading pattern used for the shielding analysis is conservative. The staff did not find that the concern has been adequately addressed in response to the request.

In its response to the staff RAI, for undamaged fuel dose rates, NAC included the loading pattern used for shielding analysis as Figure 5.A.1-1. NAC also stated on Page 5.A.1-2 that the shielding evaluations were based on undamaged Exxon fuel in central (Slot A) locations and undamaged Allis Chalmers fuel in the peripheral (Slot B).

Figure B.2-3 in the proposed Technical Specifications (TS) allows undamaged Exxon fuel to be stored in both central and peripheral locations (Slots A, B, and C in Figure B.2-3 and Slots A and B as represented by figure 5.A.1-1).

Based on the source information presented in TS Tables 5.A.2-4 and 5.A.2-5 for the two fuel types, it is not clear that an evaluation with both fuel types (Exxon Fuel in Slots A and Allis Chalmers Fuel in Slots B) is the most conservative evaluation pattern. It is likely that a loading pattern with Exxon fuel only (currently allowed per Figure B.2-3 of the TS) would provide higher dose rates.

This information is needed to ensure that the requirements of 10 CFR 72.236(d) are met.

Your response should be provided by January 24, 2010. If you are unable to meet this deadline, you must notify us in writing at least two weeks in advance of your new submittal date and provide the reasons for the delay. The staff will then assess the impact of the new submittal date and notify you of a revised schedule.

Due to the late filing of the RAI response, the schedule has changed from that previously provided. The target dates listed below assumes no additional requests for information is needed from NAC for the application to amend CoC No. 1025 and TS.

MILESTONES

- | | |
|------------------------------------|------------|
| 1. NAC Responds to RAI | 01/24/2010 |
| 2. NRC Issues Proposed CoC/SER/FRN | 05/07/2010 |
| 3. Final Effective Rulemaking | 11/07/2010 |

Please reference Docket No. 72-1025 and TAC No. L24303 in future correspondence related to this licensing action. If you have any questions, please contact me at (301) 492-3562.

Sincerely,

/RA/

Dr. Pamela Longmire, Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-1025
TAC No.: L24303

cc: Charles V. Sans Crainte (DPC)
Paul Schmidt (State of Wisconsin)
Everett Redmond (NEI)

MILESTONES

- | | |
|------------------------------------|------------|
| 4. NAC Responds to RAI | 01/24/2010 |
| 5. NRC Issues Proposed CoC/SER/FRN | 05/07/2010 |
| 6. Final Effective Rulemaking | 11/07/2010 |

Please reference Docket No. 72-1025 and TAC No. L24303 in future correspondence related to this licensing action. If you have any questions, please contact me at (301) 492-3562.

Sincerely,

/RA/

Dr. Pamela Longmire, Project Manager
 Licensing Branch
 Division of Spent Fuel Storage and Transportation
 Office of Nuclear Material Safety
 and Safeguards

Docket No.: 72-1025
 TAC No.: L24303

cc: Charles V. Sans Crainte (DPC)
 Paul Schmidt (State of Wisconsin)
 Everett Redmond (NEI)

DISTRIBUTION:

SFST r/f EWBrach VOrdaz EBenner DWeaver RLorson
 MSatorius KBanovac DGarner

G:\SFST\NAC MPC-LACBWR\RSI_12012009.doc **ADAMS ACCESSION NO. : ML093570348**

OFC:		E							
NAME:	PLongmire	REinziger	RParkhill	JPiotter	VWilson	RTemps			
DATE:	12/01/2009	12/07/2009	12/03/2009	12/04/2009	12/08/2009	12/09/2009			
OFC:									
NAME:	CCook	DPstrak	MRahimi	MWaters	RBoyer	J.Goshen for/SBaggett			
DATE:	12/10/2009	12/10/2009	12/15/2009	12/15/2009	12/15/2009	12/23/2009			

C = COVER E = COVER & ENCLOSURE N = NO COPY OFFICIAL RECORD COPY

DISTRIBUTION

Charles V. Sans Crainte
Vice President, Generation
Dairyland Power Cooperative
3200 East Ave. S.
La Crosse, WI 54602

Paul Schmidt
Manager, Radiation Protection Section
State of Wisconsin
P.O. Box 2659
Madison, WI 63701

Everett Redmond II, Ph.D.
Senior Project Manager
Used Fuel Storage and Transportation
Nuclear Energy Institute
1776 I St. N.W., Suite 400
Washington, DC 20006