

May 29, 2008

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

SUBJECT: AUTHORIZATION FOR USE OF SEALED FAILED FUEL CANS WITH A  
MODIFIED LID WELD CONFIGURATION IN THE MODEL NO. NAC-LWT  
(TAC NO. L24215)

Dear Mr. Patko:

As requested by your application dated May 16, 2008, pursuant to Title 10 of the Code of Federal Regulations Part 71 Certificate of Compliance (CoC) No. 9225, for Model No. NAC-LWT package is amended as follows:

The sealed failed TRIGA fuel cans may be used for shipment of damaged TRIGA fuel cluster rods in the NAC-LWT cask using the weld configuration identified between Item No. 10 (Street Elbow) and Item No. 11 (Support) in Zone A-7 on NAC license drawing 315-40-087, Rev. 6.

The following additional conditions apply:

- All other conditions of CoC No. 9225 shall remain the same.
- This authorization shall expire on May 29, 2009.

If you have any questions regarding this authorization, please contact me or Kim Hardin of my staff at (301) 492-3302.

Sincerely,

/RA/  
Meraj Rahimi, Acting Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 71-9225  
Enclosure: Safety Evaluation Report  
cc: R. Boyle, Department of Transportation  
J. Shuler, Department of Energy

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DISTRIBUTION: (Closes TAC No L24215)

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## SAFETY EVALUATION REPORT

Docket No. 71-9225  
Model No. NAC-LWT  
Certificate of Compliance No. 9225

### **SUMMARY**

By application dated May 16, 2008, NAC International (NAC or the applicant) requested an amendment to Certificate of Compliance (CoC) No. 9225 for the Model No. NAC-LWT packaging. NAC requested a one year authorization to use sealed failed TRIGA fuel cans with the lid weld configuration as indicated in Zone A-7 of NAC International drawing 315-40-087, Rev. 6.

These shipments are necessary to support ongoing cask loading operations and the established shipment schedule under the DOE NNSA Foreign Research Reactor (FRR) program until the next amendment request can be processed. CoC No. 9225 has been amended by letter based on the statements and representations in the application, and staff agrees that the changes do not affect the ability of the package to meet the requirements of Title 10 of the Code of Federal Regulations (10 CFR) Part 71.

### **EVALUATION**

NAC requested a one year authorization to use sealed failed TRIGA fuel cans for shipment of damaged TRIGA fuel cluster rods in the NAC-LWT cask using the weld configuration identified between Item No. 10 (Street Elbow) and Item No. 11 (Support) in Zone A-7 on NAC license drawing 315-40-087, Rev. 6.

NAC license drawing 315-40-087, Rev. 5 specifies a 1/8 weld between Item Nos. 11 (Support) and 10 (Street Elbow) in Zone A-7 of the drawing. The material thickness between Item Nos. 11 and 10 is insufficient to create a 1/8 fillet weld in between.

The purpose of Item No. 11 is to provide additional support during can loading operations when a gas line to Item No. 10 is established. There is no safety significance during can handling, cask loading and unloading, or shipment. Item No. 11 is only loaded by the weight of Item No. 10 in normal conditions of transport and hypothetical accident conditions. Additionally, Item No. 10 is fully supported by the valve weldment (Item No. 15).

This authorization has no impact on the thermal, containment, criticality, or shielding performance of the NAC-LWT packaging.

The applicant has shown and the staff agrees that the sealed failed TRIGA fuel cans may be used for shipment of damaged TRIGA fuel cluster rods in the Model No. NAC-LWT using the weld configuration between Item Nos. 10 and 11 as specified in Zone A-7 of NAC license drawing 315-40-087, Rev. 6, does not affect the ability of the NAC-LWT package to meet safety requirements of 10 CFR Part 71.

## **CONDITIONS**

The authorization is limited to the following condition:

The sealed failed TRIGA fuel cans may be used for shipment of damaged TRIGA fuel cluster rods in the NAC-LWT cask using the weld configuration identified between Item No. 10 (Street Elbow) and Item No. 11 (Support) in Zone A-7 on NAC license drawing 315-40-087, Rev. 6.

The following additional conditions apply:

- All other conditions of CoC No. 9225 shall remain the same.
- This authorization shall expire on May 28, 2009.

## **CONCLUSION**

Certificate of Compliance No. 9225 has been amended by letter for a one year authorization to ship damaged TRIGA fuel cluster rods in the package using the weld configuration specified between Item No. 10 (Street Elbow) and Item No. 11 (Support) in Zone A-7 on NAC license drawing 315-40-087, Rev. 6. This authorization expires May 28, 2009. Based on the statements and representations in the application, and with the conditions listed above, the staff agrees that this change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued on May 29, 2009.