

August 8, 2014

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

SUBJECT: APPLICATION FOR REVISING THE MODEL NO. NAC-STC TRANSPORT PACKAGE (TAC NO. L24860)

Dear Mr. Patko:

By letters dated November 26, 2013, and April 24, 2014, you submitted an application for revising Certificate of Compliance No. 9235, for the Model No. NAC-STC transport package. The application proposes to modify the NAC-STC transportation system to authorize the following contents (in separate shipments and distinctive designs):

1. Uncanistered high burnup pressurized water reactor 17x17 (PWR 17x17) fuel, and
2. West Valley Demonstration Project vitrified high-level waste poured into welded canisters.

The staff performed an acceptance review of your application to determine if the application contained sufficient technical information in scope and depth to allow the staff to complete a detailed technical review. The staff found that the application did not include sufficient information in the following areas:

1. *M5 fuel cladding.* Although there may be sufficient information in the application regarding Zirlo and Zircaloy cladding mechanical behavior as a function of temperature, the same data is not available in the application with sufficient information for the NRC staff to judge the acceptability of cladding mechanical behavior as a function of temperature for M5 fuel cladding.
2. *Justification for the release fractions used in the containment analysis of high burnup fuel.* The guidance referenced by the applicant for the release fractions in NUREG-1617, "Standard Review Plan for Transportation Packages for Spent Nuclear Fuel," was not intended for high burnup fuel and therefore, the application needs to include release fractions for high burnup fuel, which should be used in the containment analysis, along with justification for the release fractions.

Therefore, the staff does not find the information contained in the application acceptable for docketing.

While the information provided regarding the design changes for transporting high burnup fuel is not ready for review because of the deficiencies identified above, information related to the design for transporting high-level waste of the West Valley Demonstration Project is acceptable for starting the technical review, if the review is conducted independently from the other parts of

your application. Therefore, if the applicant wishes the NRC to proceed to review only the portion of the application regarding the West Valley Demonstration Project vitrified high-level waste at this time, the applicant should respond with that request in writing, including a detailed list of the portions of the application that the applicant contends support the West Valley Demonstration Project vitrified high-level waste modification. Upon receipt of that request, the NRC will develop a schedule for the review of the application, as modified.

If you choose to have the NRC proceed with review of the West Valley Demonstration Project portion of the application at this time, any subsequent request for initiation of the review of the modification regarding uncanistered high burnup pressurized water reactor 17x17 fuel should provide the additional information outlined above. If and when that request is made, and the additional information is provided and determined to be acceptable, the review will proceed as a separate amendment application with a separate schedule for completion.

If you have any questions regarding this matter, please contact me at (301) 287-9185.

Sincerely,

/RA/ T. Lupold for

Norma Garcia-Santos, Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9235
TAC No. L24860

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DATE	7/23/2014		7/23/14		7/28/14		7/28/14		7/31/14		7/28/14		7/30/14		7/28/14	
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