



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 21, 2017

Mr. Ahmad M. Al-Daouk, Director
Office of Packaging and Transportation
U.S. Department of Energy
National Nuclear Security Administration
P.O. Box 5400
Albuquerque, NM 87185

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR REVIEW OF THE
CERTIFICATE OF COMPLIANCE NO. 9355, REVISION 2, FOR THE MODEL
NO. 435-B PACKAGING (CAC NO. L25217)

Dear Mr. Al-Daouk:

By letter dated April 27, 2017 (ADAMS Accession No. ML 17138A026), the U.S. Department of Energy, National Nuclear Security Administration (NNSA or the applicant), requested a revision to the Certificate of Compliance (CoC) for the Model No. 435-B packaging. In summary, the applicant proposes the following revisions to the design of the Model No. 435-B:

- 1) remove the use of adhesive to attach neoprene to the lodgment, and the thin (1/8-inch thick) neoprene;
- 2) add breather vents to the inner container (IC) lid;
- 3) add a new case to the thermal analysis to evaluate the thermal effect of using metallic dunnage with a shielded device in the IC;
- 4) add Section 3.4.3.5 to the thermal analysis to document the evaluation of the thermal decomposition response under hypothetical accident conditions of non-metallic materials that may be transported within containment;
- 5) revise the operations to allow the slings used to lift the shielded device during loading to be left in the IC for use in unloading; and
- 6) revise licensing drawings to reflect changes identified during fabrication of the packaging.

In connection with our review, we need the information identified in the enclosure to this letter. To assist us in scheduling staff review of your response, we request that you provide this information by September 1, 2017. Inform us at your earliest convenience, but no later than August 11, 2017, if you are not able to provide the information by that date. If you are unable to provide a response by September 1, 2017, our review may be delayed.

Please reference Docket No. 71-9355 and CAC No. L25217 in future correspondence related to this request. The staff is available to meet to discuss your proposed responses. If you have any questions regarding this matter, you can contact me at (301) 415-6999.

Sincerely,

/RA/

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

Docket No. 71-9355
CAC No. L25217

Enclosure:
Request for Additional Information

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR REVIEW OF THE
 CERTIFICATE OF COMPLIANCE NO. 9355, REVISION 2, FOR THE MODEL
 NO. 435-B PACKAGING (CAC NO. L25217), DOCUMENT
 DATE: JULY 21, 2017

Distribution: DSFM r/f

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ADAMS No.: ML17206A167

OFFICE	NMSS\DSFM	NMSS\DSFM	NMSS\DSFM	NMSS\DSFM	NMSS\DSFM
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DATE	7/18/17	7/19/17	7/18/17	7/19/17	7/21/15

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Request for Additional Information
U.S. Department of Energy
National Nuclear Security Administration
Docket No. 71-9355
Certificate of Compliance No. 71-9355
Revision 2
Model No. 435-B

By letter dated April 27, 2017 (ADAMS Accession No. ML 17138A026), the U.S. Department of Energy, National Nuclear Security Administration (NNSA or the applicant), requested a revision to the Certificate of Compliance (CoC) for the Model No. 435-B packaging.

This request for additional information (RAI) identifies information needed by the U.S. Nuclear Regulatory Commission staff (the staff) in connection with its review of the application. NUREG-1609, "Standard Review Plan for Transportation Packages for Radioactive Material," was used by the staff in its review of the application.

This RAI describes information needed by the staff for it to complete its review of the application and to determine whether the applicant has demonstrated compliance with the regulatory requirements of 10 CFR Part 71.

STRUCTURAL EVALUATION

RAI-St-1 Provide a detailed description of the condition of the package after free drop tests and puncture test after replacing previously approved rubber tipped stainless steel bolts with bare bronze bolts used to secure the Long Term Storage Shield (LTSS) using toggle clamps.

Section 1.3.3, "Packaging General Arrangement Drawings," Drawing No. 1916-01-02-SAR, "435-B LTSS Lodgment SAR Drawing," includes changes to items 17 and 18 of the "List of Materials." These items are a bronze hex bolt and locknut for use with the toggle clamps. Toggle clamps are used to secure the LTSS to the LTSS lodgment. Previously, the toggle clamps engaging the LTSS were rubber tipped stainless steel bolts. The applicant requested using bare bronze bolts instead of rubber tipped stainless steel bolts. Previous drop tests (Test series D1 and D2) indicated that there was damage to the toggle clamps and/or that they had become unclamped. Additional damage to the toggle clamps and/or the LTSS is expected with bronze bolts since this material is relatively stiffer than rubber, and expected to transmit higher forces.

This information is needed to determine compliance with 10 CFR 71.71(c)(7) and (10), and 10 CFR 71.73(c)(1) and (3).

Enclosure