



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

September 9, 2024

Julia Shenk, Certifying Official Director
U.S. Department of Energy
Office of Packaging and Transportation
19901 Germantown Road – Room D115
Germantown, MD 20874

SUBJECT: APPLICATION FOR INNER HIGH FLUX ISOTOPE REACTOR UNIRRADIATED FUEL ELEMENT SHIPPING CONTAINER, AND OUTER HIGH FLUX ISOTOPE REACTOR UNIRRADIATED FUEL ELEMENT SHIPPING CONTAINER

Dear Julia Shenk:

By letter dated July 30, 2024 (Agencywide Documents Access and Management System Accession No. ML24229A121), you submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a -96 certification of the Model Inner High Flux Isotope Reactor (HFIR) Unirradiated Fuel Element Shipping Container, and Outer HFIR Unirradiated Fuel Element Shipping Container.

We have completed the acceptance review of your application and determined that it contains sufficient technical information in scope and depth for a detailed technical review. However, the staff has made two observations, noted in enclosure 1. Based on our preliminary evaluation, our technical review schedule includes the issuance, if needed, of a request for additional information (RAI) by December 20, 2024, and, provided that we receive your responses to the RAIs within 60 days after its issuance, we anticipate issuing the Certificate of Compliance by May 2025. The NRC staff estimates that completing the review of your submittal will require approximately 510 staff hours. We will promptly communicate significant schedule changes, if any.

J. Shenk

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If you have any questions regarding this communication, please contact me at 301-287-3664, or via email to heath.stroud@nrc.gov.

Sincerely,



Signed by Stroud, Heath
on 09/09/24

Heath Stroud, Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 71-5797
EPID No.: L-2023-LLA-0156

Enclosure:
1. Observations

cc w/encl. 1: L. Gelder, DOE

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DOCUMENT DATE: September 9, 2024

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ADAMS Accession No.: ML24247A136

OFFICE	NMSS/DFM	NMSS/DFM	NMSS/DFM	NMSS/DFM
NAME	HStroud	SFiguroa	YDiaz-Sanabria	HStroud
DATE	9/4/2024	9/4/2024	9/6/2024	9/9/2024

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**Observation
Certificate of Compliance No. 5797
Docket No. 71-5797
Revision 24**

OBS-M-1:

Explain how the polyethylene foam “was neglected in the analysis” as discussed on pages 2-6 of the final safety analysis report (FSAR). Identify how the energy absorption characteristics of the foam were modeled and whether lock up was also considered.

This information is needed to determine compliance with Title 10 of the *Code of Federal Regulations* (10 CFR) 71.51(a) and 10 CFR 71.55(d) and 10 CFR 71.55(e).

OBS-M-2:

For the plywood yield strength values (in-plane), the table 2.5, “Mechanical Properties Used in Analysis” lists 3250 pounds per square inch Static, based on “Unpublished data transmitted by J. W. Langhaar of E. I. duPont de Nemours and Company, Inc. to L.B. Shappert and others, dated February 19, 1974.” In addition, in FSAR 2.2.1 the applicant states that “the data from actual tests support this assumption (Reference 2.12.11). The staff requests the applicant provide the data that supports the values chosen in table 2.5.

This information is needed to determine compliance with 10 CFR 71.51(a) and 10 CFR 71.55(d) and 10 CFR 71.55(e).

Enclosure