



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

May 1, 2026

Brandon Hanson
Director of Regulatory Affairs
Radiant Nuclear, LLC
1921 E Maple Ave
El Segundo, CA 90245

SUBJECT: ACCEPTANCE OF RADIANT NUCLEAR R-50 SPECIAL NUCLEAR
MATERIAL LICENSE APPLICATION (ENTERPRISE PROJECT
IDENTIFICATION NUMBER L-2026-NEW-0000)

Dear Brandon Hanson:

The U.S. Nuclear Regulatory Commission (NRC) staff has received the letter from Radiant Nuclear, LLC (Radiant), entitled, "R-50 Special Nuclear Materials License Application," dated February 25, 2026, see Agencywide Documents Access and Management System (ADAMS) ML26058A375, which was revised by letters dated March 15, 2026 (ML26074A002), entitled, "Supplement to R-50 Special Nuclear Materials License Application," and April 17, 2026 (ML26107A169), entitled, "RSI Response NRC letter dated April 1, 2026, to R-50 Special Nuclear Materials License Application." Affidavits for withholding information under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 2.390 were included with each of those submittals. Those submittals provided the license application to construct and operate the specified operations in the Fueling Building of the R-50 microreactor facility site located in Oak Ridge, Tennessee.

The NRC staff has completed our acceptance review of your submittals and determined that the application provides sufficient information to proceed with a detailed technical review. To meet the requested "need by date," we have established an expedited review schedule and estimate completion by December 18, 2026. The NRC staff identified several observations regarding updates and clarifications to the license application that are provided in the enclosure. These observations are for your awareness, which Radiant may wish to resolve voluntarily to reduce future requests for additional information (RAIs). The review schedule includes time for one round of formal RAIs per technical area and the expectation that Radiant will provide high quality, complete, and timely responses to the RAIs. The schedule also assumes Radiant will schedule clarification calls and audits promptly, and any additional supporting non-docketed information are provided timely.

This letter transmits **Security-Related Information**. When separated from the enclosure, this letter is decontrolled.

The table below provides key milestones for the license application review schedule.

Review Milestones	Estimated Completion
Acceptance	May 1, 2026
Draft RAIs, Draft Safety and Safeguards Evaluation Report (SER), and Draft Environmental Assessment (EA) provided to the NRC Project Manager ¹	May – July 2026
RAIs to Applicant ¹	May – July 2026
RAIs Responses and Supplements ¹	June – August 2026
Draft Final SER provided to the NRC Project Manager ¹	July – September 2026
Final SER Package into Concurrence	October 2026
Conclusion of Consultation Activities	November 2026
Issue Final EA and Finding of No Significant Impact (FONSI) ¹	November – December 2026
Issuance of Final SER	December 2026

The NRC staff estimates that completing the review of your submittal will require approximately 3,300 staff-hours for the review of the SAR and 900 staff-hours for the ER, which corresponds to about \$621,600 (\$148/hour – the reduced hourly rate in 10 CFR 170.20). Note that the estimated schedule is approximately 55 percent faster than the generic 18-month schedule for a new license under 10 CFR Part 70. We will promptly communicate significant schedule and cost changes, if any.

The enclosure contains sensitive security-related information. Accordingly, it is marked as “Official Use Only,” and is withheld from public disclosure. When separated from the enclosure, this letter is decontrolled and publicly available, in accordance with 10 CFR Section 2.390 of the NRC’s “Agency Rules of Practice and Procedure.”

In accordance with 10 CFR 2.390, “Public inspections, exemptions, requests for withholding,” of the NRC’s “Agency Rules of Practice and Procedure,” a copy of this letter will be available for public inspection in the NRC Public Document Room (PDR) or electronically from the publicly available records component of ADAMS. The PDR is currently open Monday-Friday by appointment only. To schedule an appointment, you may submit your request to the PDR via email at PDR.Resource@nrc.gov or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays. The ADAMS database is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>.

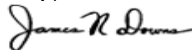
¹ Some review milestone completion dates are listed as a range because the review steps for the different technical review areas will be conducted in parallel with staggered due dates for each area as part of the larger review milestone (e.g., completion of draft RAIs and SER, issuance of RAIs, responses to RAIs, completion of the draft final SER, and issuance of the final EA & FONSI).

B. Hanson

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If you have any questions regarding this matter, please contact me at (301) 415-7744, or via email at James.Downs@nrc.gov.

Sincerely,



Signed by Downs, James
on 05/01/26

James Downs, Senior Project Manager
Fuel Facility Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 7007045

Enclosure:
Observations (non-public)

B. Hanson

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DATED: May 1, 2026

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