



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

August 5, 2019

Dr. David B. Scott
Advanced Nuclear Technology Program Manager
Electric Power Research Institute (EPRI), Inc.
1300 West W.T. Harris Blvd
Charlotte, NC 28262

SUBJECT: ELECTRIC POWER RESEARCH INSTITUTE, INC. - ACCEPTANCE OF
"URANIUM OXYCARBIDE (UCO) TRISTRUCTURAL ISOTROPIC (TRISO)
COATED PARTICLE FUEL PERFORMANCE" TOPICAL REPORT

Dear Dr. Scott:

By letter dated May 31, 2019, the Electric Power Research Institute (EPRI) submitted for U.S. Nuclear Regulatory Commission (NRC) staff review, "Uranium Oxycarbide (UCO) Tristructural Isotropic (TRISO) Coated Particle Fuel Performance, Topical Report EPRI-AR-1" (Agencywide Documents Access and Management System Accession No. ML19155A173). The NRC staff has performed an acceptance review of the topical report and found that it contains sufficient information to enable the staff to complete a detailed technical review. Notwithstanding the acceptance review, the NRC staff may require additional information to complete the detailed technical review. If needed, the NRC staff will request this information by separate correspondence by December 2019.

Based on the acceptance review, the NRC staff expects to issue a safety evaluation by May 2020. This date could change due to several factors, including the need for and timeliness of responses to requests for additional information; unanticipated changes to the scope of the review; and unsolicited supplements to the topical report. Additionally, the Advisory Committee for Reactor Safeguards (ACRS) will be notified of this topical report and may choose to discuss the report at an ACRS meeting which could impact the schedule for issuing the final safety evaluation to EPRI.

If the forecasted completion date changes, the NRC staff will notify you in writing of the new date and an explanation of the reason for the change.

Section 170.21 of Title 10 of the *Code of Federal Regulations* requires approvals and preapplication/licensing activities, including topical reports, to be subject to fees based on the full cost of the review. However, as discussed in previous communications including the pre-submittal meeting (ADAMS Accession No. ML19119A229), this activity was determined to have generic implications for multiple advanced reactor developers using TRISO fuel and will aid in staged licensing processes for designers referencing this topical report. Accordingly, due to the broadly applicable nature of the report, review of this report will be conducted using off-fee funds allocated for developing the regulatory framework for advanced reactors.

D. Scott

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The review schedule milestones and estimated level of effort were discussed and agreed upon during a phone call between Andrew Sowder, of EPRI and Boyce Travis, Reactor Systems Engineer, Advanced Reactor Policy Branch, NRC on July 18, 2019.

If you have questions regarding this matter, please contact Boyce Travis at (301) 415-4149 or Boyce.travis@NRC.gov.

Sincerely,

\RA

John Segala, Chief
Advanced Reactor Policy Branch
Division of Advanced Reactors
Office of New Reactors

Project No. 99902021

ELECTRIC POWER RESEARCH INSTITUTE, INC. - ACCEPTANCE OF "URANIUM
OXYCARBIDE (UCO) TRISTRUCTURAL ISOTROPIC (TRISO) COATED PARTICLE FUEL
PERFORMANCE" TOPICAL REPORT – DATED August 5, 2019

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DATE	07/19/2019	08/05/2019

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