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

August 26, 2019

Ms. Janet R. Schlueter, Director
Fuel and Materials Safety
Nuclear Generation Division
Nuclear Energy Institute
1201 F Street, NW, Suite 1100
Washington, DC 20004-1218

SUBJECT: PREPARING FOR EFFICIENT AND EFFECTIVE LICENSING OF ACCIDENT TOLERANT FUEL WITH HIGHER ENRICHMENT

Dear Ms. Schlueter:

The U.S. Nuclear Regulatory Commission (NRC) appreciates the efforts by the Nuclear Energy Institute and industry for engaging us in their plans to accelerate accident tolerant fuel (ATF) deployment with increased enrichment. To increase regulatory stability and certainty along with enhancing and optimizing NRC review for accident tolerant fuel reviews, the NRC has been following an integrated approach described in the ATF Project Plan (Agencywide Documents Access and Management System (ADAMS) Accession Number ML18261A414). The NRC understands that a current industry goal is to deploy ATF with enrichments up to 8 weight percent in 2023.

Applications seeking regulatory approvals related to transportation, enrichment, and fuel fabrication are expected to be among the first submitted to NRC for review. Considering this, the NRC staff has expressed our interest in conducting pre-application meetings.

The NRC has developed the attached schedule based on information fuel cycle licensees and transportation vendors have shared to date. The schedule assumes the casework is given a high review priority compared to other casework and assumes high quality, complete submittals. NRC staff believes that the key dates for licensing actions to support industry's ability to achieve its 2023 goal are:

- Assuming uranium hexafluoride (UF6) will be enriched at the only existing enrichment facility in the U.S., the licensee will need to submit a license amendment request (LAR) no later than August 2021 to support enrichment above 5 weight percent, but below 10 weight percent;
- Assuming a current licensee will request an exemption to 71.55(b), for use of an existing UF6 transportation package design to accommodate the increased enrichment, will need to submit a revision to a certificate of compliance (CoC) no later than August 2021;
- Assuming the fuel will be manufactured by one of the existing fuel fabrication facilities in the U.S., the licensee will need to submit an LAR no later than October 2021; and
- Assuming industry will use an existing fresh fuel transportation design to accommodate the increased enrichment, a certificate holder will need to submit a revision to a CoC no

later than February 2022 for fresh fuel transport to support enrichment above 5 weight percent, but below 10 weight percent.

Early engagement is critical for an efficient and effective review of these regulatory actions. The NRC staff has strongly encouraged licensees, applicants and vendors to request pre-application meetings with the NRC staff to: (1) discuss technical and regulatory issues, (2) identify key technical and regulatory features, and (3) establish the schedule for submitting applications.

We would appreciate any feedback on the attached schedule, specifically on industry's activities. Please do not hesitate to contact Jacob Zimmerman, of my staff, at 301-415-1220 or Jacob.Zimmerman@nrc.gov if you have any questions.

Sincerely,

/RA/

Kathryn M. Brock, Acting Director
Division of Fuel Cycle Safety, Safeguards
And Environmental Review
Office of Nuclear Material Safety
and Safeguards

Enclosure:
NRC critical path schedule of
licensing actions related to ATF
with increased enrichment (<10%)

SUBJECT: PREPARING FOR EFFICIENT AND EFFECTIVE LICENSING OF ACCIDENT TOLERANT FUEL WITH HIGHER ENRICHMENT

DOCUMENT DATE: August 26, 2019

DISTRIBUTION: FCSE r/f

ADAMS Accession Numbers: ML19235A261 (P), ML19235A265 (L), ML19235A266 (Encl 1)

OFFICE	NMSS/FCSE	NMSS/FCSE	NMSS/FCSE	NMSS/FCSE	NMSS/DSFM
NAME	M. Diaz	E. Lee	J. Zimmerman	K. Brock	M. Layton
DATE	08/23/2019	08/23/2019	08/27/2019	08/26/2019	08/27/2019

OFFICIAL RECORD COPY