

April 26, 2018

MEMORANDUM TO: Dennis C. Morey, Chief  
Licensing Processes Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

FROM: J. Andrew Proffitt, Project Manager */RA/*  
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SUBJECT: SUMMARY OF FEBRUARY 27, 2018, PUBLIC MEETING WITH  
INDUSTRY ON ACCIDENT TOLERANT FUEL

On February 27, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff held a meeting at NRC Headquarters in order to have an information exchange on the current status of industry and U.S. Department of Energy (DOE) accident tolerant fuel (ATF) programs, public comments on the NRC's "Draft Project Plan to Prepare the U.S. Nuclear Regulatory Commission to License and Regulate Accident Tolerant Fuel," and the process for conducting phenomena identification and ranking table (PIRT) exercises for ATF designs. Industry attendees included representatives of the Nuclear Energy Institute (NEI), Electric Power Research Institute (EPRI), fuel vendors, nuclear power plant operators and others as indicated on the enclosed attendance list. Pertinent documents concerning the meeting include: the draft project plan (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17325B772); NRC meeting slides (ADAMS Accession No. ML18057A189 and No. ML18057A212); DOE meeting slides (ADAMS Accession No. ML18057A187), and NEI meeting slides (ADAMS Accession No. ML17255A004).

Opening remarks were given by NRC, NEI, and DOE management, followed by the first presentation by DOE on the status of their ATF program. This included an overview of the Congressional direction given to DOE and their development plan as well as a description of the national laboratory research and development support. DOE highlighted the fact that they are currently updating their development plan based on having multiple concepts and the accelerated progress that they have made. They also mentioned the advanced modelling and simulation efforts they have ongoing related to ATF with the Nuclear Energy Advanced Modeling and Simulation (NEAMS) and Consortium for Advanced Simulation of Light Water Reactors (CASL) programs.

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NEI followed DOE with a roadmap of the industry's path forward on accident tolerant fuels, highlighting those concepts currently under development by the vendors. They also laid out the current plans for ATF lead test assembly (LTA) programs at U.S. power plants and the industry's desire to accelerate the timeline for ATF licensing by expanding the rollout of LTAs. As part of NEI's presentation, EPRI briefly outlined their vision for conducting PIRT exercises in collaboration with the NRC and international stakeholders.

The NRC staff followed these presentations by briefly outlining the NRC's ATF project plan, gave an overview of the comments received on the plan during the public comment period, including the staff's initial response and thoughts the major themes, and the staff's path forward on addressing the comments and finalizing the plan, which is slated for mid-summer 2018. The public was then invited to participate in the discussion.

Public comments included support for the development of ATF, highlighting that NRC must maintain its independence, questions related to the Hatch ATF LTAs, and questions on the spent fuel storage of ATF. NRC staff or industry representatives at the table addressed all of the comments.

Following a break, the NRC gave a presentation on the PIRT process describing the process, giving recent examples of PIRTs conducted by the agency, and a proposal for how the process could be coordinated for ATF designs. The public was then given another opportunity to provide feedback, but there were no comments or questions at this portion of the meeting.

NRC management concluded the meeting highlighting the clarity brought by the meeting and the next steps to address the public comments, revise the ATF project plan, and begin PIRTs for near-term concepts.

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