



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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February 21, 2019

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

FROM: Jonathan G. Rowley, Project Manager */RA/*  
Licensing Processes Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JANUARY 17, 2019, CLOSED MEETING WITH FRAMATOME  
INC. REGARDING STATUS OF ENHANCED ACCIDENT TOLERANT FUEL  
ACTIVITIES

On January 17, 2019, a closed meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff, and Framatome Inc. (Framatome). During the meeting Framatome updated the NRC staff on its most recent enhanced accident tolerant fuel (ATF) activities.

During the introductory remarks, the NRC stated that the NRC plans to have a number of public meetings to inform the public about the NRC activities related to ATF. The NRC plans to issue an Interim Staff Guidance document related to chrome coated cladding ATF by the end of 2019. The NRC plans regarding ATF will be presented at the 2019 Regulatory Information Conference.

Framatome began by discussing the improvements in reactor fuel anticipated as a result of its chromium coated cladding and chromia-doped pellet ATF. Framatome discuss its thoughts for what a topical report on each type of ATF would consist of and a schedule for submitting them. Framatome discussed the fuel design process, design review tools, and design activities. Attention was given to two design review tools: Failure mode effects analysis (FMEA) and design review board (DRB). Framatome also provided information about the lead test assemblies through the world which will be used to collect fuel irradiation data. Due to the time sensitive nature of all ATF activities in the U.S., an accelerated NRC review will be needed to support Framatome's desired deployment schedule. Ideas to complete the review of a topical report of this magnitude and complexity were discussed prior to the conclusion of the meeting.

The NRC staff indicated to Framatome that it will want to observe some of the chromium coated cladding tests. The NRC staff stated that the NRC's suite of analytical codes and methods used for scoping and confirmatory analyses need to be updated prior to topical report submittal to support efficient and effective technical reviews. Thus, the NRC needs chromium coated M5 properties as soon as they are available and detailed information on how data was collected so that the NRC can update these codes to support the aggressive schedule. The NRC agreed that the Framatome FMEA and DRB design activities are similar to the phenomena identification and ranking table (PIRT) process and look forward to engaging Framatome regarding the NRC's chrome coated PIRT report upon finalization in July 2019.

D. Morey

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A list of attendees is enclosed. The Framatome presentation material can be found in the Agencywide Documents Access and Management System at Accession Nos. ML19030A194 (proprietary) and ML19030A193 (non-proprietary).

Docket No. 99902041

Enclosure: List of Attendees

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SUBJECT: SUMMARY OF JANUARY 17, 2019 CLOSED MEETING WITH FRAMATOME INC. REGARDING STATUS OF ENHANCED ACCIDENT TOLERANT FUEL ACTIVITIES DATE: FEBRUARY 21, 2019

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OFFICE	NRR/DLP/PLPB/PM	NRR/DLP/PLPB/BC	NRR/DLP/PLPB/PM
NAME	JRowley	DMorey	JRowley
DATE	2/15/2019	2/21/2019	2/21/2019

**OFFICIAL RECORD COPY**

List of Attendees

**Framatome ATF Update Meeting**

January 17, 2019

<b>Name</b>	<b>Organization</b>
Jeffrey Reed	Framatome Inc. (Framatome)
Gary Peters	Framatome
Jerald Holm	Framatome
Will Maxson	Framatome
Frank Goldner	Department of Energy
Jonathan Rowley	U.S. Nuclear Regulatory Commission (NRC)
Luis Betancourt	NRC
Mathew Panicker	NRC
Mirela Gavrilas	NRC
Andrew Proffitt	NRC
Ian Porter	NRC
Michelle Bales	NRC
Yuri Orechwa	NRC
Joshua Whitman	NRC
Joshua Borrromero	NRC
Scott Krepel	NRC
Jennifer Whitman	NRC
James Corson	NRC
Kent Wood	NRC
Joshua Kaizer	NRC
Dennis Morey	NRC
Robert Schaff*	NRC
Benjamin Parks*	NRC

\* Participated remotely via Conference Bridge

Enclosure