



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

February 23, 2023

MEMORANDUM TO: Cindy E. Rosales-Cooper, Acting Chief  
Licensing Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

FROM: Ngola A. Otto, Project Manager */RA/*  
Licensing Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF FEBRUARY 21, 2023, PARTIALLY CLOSED  
MEETING WITH FRAMATOME INC. AND THE U.S. NUCLEAR  
REGULATORY COMMISSION FOR TOPICAL REPORT,  
ANP-10350P, REVISION 0, "FRAMATOME METHODOLOGY  
FOR BOILING WATER REACTORS: EVALUATION AND  
VALIDATION OF APOLLO2-A/ARTEMIS-B"  
(EPID L-2022-TOP-0038)

On February 21, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff held a partially closed (open session, closed session) meeting via Microsoft Teams with representatives from Framatome Inc. (Framatome). The purpose of the meeting was for the NRC staff and Framatome representatives to discuss the December 2022 audit follow-up questions, requests for additional information (RAI) questions, and a planned submission of a supplement to Topical Report (TR) ANP-10350P, Revision 0, "Framatome Methodology for Boiling Water Reactors: Evaluation and Validation of APOLLO2-A/ARTEMIS-B Topical Report." The meeting was noticed on February 8, 2023, and is available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML23039A114.

The open session discussion focused on the TR ANP-10350P supplement, which is part of the Framatome advance fuel management (AFM) program and would extend to boiling water reactors. Specifically, the supplement would increase the uranium enrichment limit to 6.5 percent and the rod average burnup limit to 75 gigawatts day per metric ton (GWd/MTU). Framatome also plans to perform verification in terms of neutronics and fuel rod model. The NRC staff asked a question about the rationale for the 6.5 percent enrichment. This question was addressed during the closed session because the answer involved proprietary information.

The NRC staff provided a discussion on the estimated timeline for the review of the supplement as it relates to the current schedule. This information is enclosed as Enclosure 2. There were no questions from members of the public.

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The closed section discussion focused on Framatome clarifications on the NRC staff audit report (ADAMS Package Accession No. ML23010A001) and RAI questions (ADAMS Package Accession No. ML23018A166). At the conclusion of the meeting, the NRC staff and Framatome representatives discussed next steps. Framatome plans to respond to the RAI questions issued in January 2023 and submit the AFM supplement in December 2023.

A list of the attendees is enclosed. This meeting summary can be found at ADAMS Accession No. ML23053A259 and other information discussed is available in ADAMS Package Accession No. ML23048A238.

Docket No. 99902041

Enclosures:

1. List of Attendees
2. Estimated Revised Schedule to Include the Review of the Supplement to ANP-10350P, Revision 0, Incorporating AFM

**List of Attendees**

Partially Closed Meeting between Framatome Inc.  
and the U.S. Nuclear Regulatory Commission for  
Topical Report ANP-10350P, Revision 0, Framatome Methodology for Boiling Water Reactors:  
Evaluation and Validation of APOLLO2-A/ARTEMIS-B Topical Report  
February 21, 2023  
3:30 pm – 5:00 pm

<b><u>NAME</u></b>	<b><u>ORGANIZATION</u></b>
Alan Meginnis	Framatome Inc. (Framatome)
Kevin Quick	Framatome
Paul Smith	Framatome
Alexander Bennett	Framatome
Jaron Senecal	Framatome
Benjamin Parks	U. S. Nuclear Regulatory Commission (NRC)
Cindy Rosales-Cooper	NRC
Daniel King	NRC
Ashley Smith	NRC
Ngola Otto	NRC
Scott Krepel	NRC
Carla Roque-Cruz	NRC
Heidi	Interpreter for Scott Krepel
Sarah Gibboney	X-energy
Raymond Wang	

**Estimated Revised Schedule to Include the Review of the Supplement to ANP-10350P,  
Revision 0, Incorporating Advance Fuel Management**

February 21, 2023, Meeting for Topical Report ANP-10350P, Revision 0, Framatome Methodology for Boiling Water Reactors: Evaluation and Validation of APOLLO2-A/ARTEMIS-B

**Current Schedule**

<b>Milestone</b>	<b>Current Planned/Completed Date</b>	<b>Status</b>
<b>Submittal</b>	<b>June 30, 2022</b>	<b>Completed</b>
Acceptance	August 22, 2022	Completed
Audit	December 5-8, 2022	Completed
Issued RAIs – Set #1	January 26, 2023	Completed
Issue RAIs – Set #2	March 31, 2023	
Issue RAIs – Set #3	May 31, 2023	
Response to RAIs – Set #1	May 31, 2023	
Response to RAIs – Set #2	June 30, 2023	
Response to RAIs – Set #3	August 31, 2023	
<b>Issue Draft SE</b>	<b>April 26, 2024</b>	
ACRS Subcommittee Meeting	June 2024	
ACRS Full Committee Meeting	July 2024	
<b>Issue Final SE</b>	<b>August 30, 2024</b>	

**Estimated Revised Schedule**

<b>Milestone</b>	<b>Estimated Completion Date</b>
<b>Planned Submittal of Supplement</b>	<b>December 2023</b>
Audit	April 2024
Issue RAIs – Set #4	May 2024
RAI Responses – Set #4	September 2024
<b>Issue Draft SE</b>	<b>December 2024</b>
ACRS Subcommittee Meeting	January 2025
ACRS Full Committee Meeting	February 2025
<b>Issue Final SE</b>	<b>March 2025</b>

SUBJECT: SUMMARY OF FEBRUARY 21, 2023, PARTIALLY CLOSED MEETING WITH FRAMATOME INC. AND THE U.S. NUCLEAR REGULATORY COMMISSION FOR TOPICAL REPORT, ANP-10350P, REVISION 0, "FRAMATOME METHODOLOGY FOR BOILING WATER REACTORS: EVALUATION AND VALIDATION OF APOLLO2-A/ARTEMIS-B" (EPID L-2022-TOP-0038) DATED FEBRUARY 23, 2023

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**EXTERNAL DISTRIBUTION:**

Alan.Meginnis@framatome.com

**ADAMS Accession Nos.:****ML23048A238 (Package)****ML23053A259(Summary)****\*via e-mail**

OFFICE	DORL/LLPB/PM*	DORL/LLPB/LA*	DORL/LLPB/BC (A)*	DORL/LLPB/PM*
NAME	NOtto	DHarrison	CRosales-Cooper	NOtto
DATE	2/22/2023	2/23/2023	2/23/2023	2/23/2023

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