



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

June 14, 2023

MEMORANDUM TO: Gerond A. George, 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 JUNE 7, 2023, PARTIALLY CLOSED
COMPUTATIONAL FLUID DYNAMICS TOPICAL REPORT PRE-
SUBMITTAL MEETING WITH FRAMATOME INC. AND THE U.S.
NUCLEAR REGULATORY COMMISSION (EPID L-2023-NTR-0003)

On June 7, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff held a partially closed meeting via Microsoft Teams with representatives from Framatome Inc. (Framatome). The purpose of the meeting was for the NRC staff and Framatome representatives to hold pre-submittal discussions on Framatome's planned single phase computational fluid dynamics (CFD) topical report (TR). The topics discussed include the TR content, intended applications, Verification and Validation (V&V) process, Phenomena Identification and Ranking Table (PIRT) assessment, methodology validations, and uncertainty quantification. The meeting notice is available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML23157A329.

During the open session, the Framatome representative explained the meeting's objective, submittal schedule, intended applications, and provided an overview of the TR content. There were no NRC staff questions and no members of the public in attendance.

During the closed session, the NRC staff and Framatome representatives discussed single-phase CFD methodology designated commercial code, the virtual experimental platform, typical CFD pressure field results and models, and applicability. In addition, the Framatome representative also explained anticipated classes of problems, V&V process, PIRT assessment, methodology Validation, and the pressure loss coefficient methodology predictive performance associated with the single-phase CFD methodology. The Framatome representatives addressed the NRC staff's questions regarding code verification and its review challenges, V&V, code calculation/solution verification, and validation data during the closed session.

CONTACT: Ngola Otto, NRR/DORL
301-415-6695

The NRC staff also provided the following references during its discussion on reviewing framework:

U.S. Food and Drug Administration
Assessing the Credibility of Computational Modeling and Simulation in Medical Device Submissions
<https://www.fda.gov/regulatory-information/search-fda-guidance-documents/assessing-credibility-computational-modeling-and-simulation-medical-device-submissions>.

U.S. Department of Energy Office of Scientific and Technical Information Validation Metrics for Deterministic and Probabilistic Data
<https://www.osti.gov/servlets/purl/1494178>

A list of the attendees is enclosed. This meeting summary and other information associated with this meeting can be found at ADAMS Package Accession No. ML23157A199.

Docket No. 99902041

Enclosure:
List of Attendees

List of Attendees

Partially Closed Meeting between Framatome Inc.
and the U.S. Nuclear Regulatory Commission
June 7, 2023
2:00 pm – 4:00 pm

<u>NAME</u>	<u>ORGANIZATION</u>
Jerald Holm	Framatome Inc. (Framatome)
Anca Hatman	Framatome
Kenneth Greene	Framatome
Camila Freitas Matozinhos	Framatome
TJ Smiley	Framatome
Scott Krepel	U. S. Nuclear Regulatory Commission (NRC)
Joshua Kaizer	NRC
Noushin Amini	NRC
Chris Van Wert	NRC
Ngola Otto	NRC
Ashley Smith	NRC

SUBJECT: SUMMARY OF JUNE 7, 2023, PARTIALLY CLOSED COMPUTATIONAL FLUID DYNAMICS TOPICAL REPORT PRE-SUBMITTAL MEETING WITH FRAMATOME INC. AND THE U.S. NUCLEAR REGULATORY COMMISSION (EPID L-2023-NTR-0003) DATED JUNE 14, 2023

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JKAizer, NRR

EXTERNAL DISTRIBUTION:

Jerald.Holm.ext@framatome.com

ADAMS Accession Nos.:

ML23157A199 (Package)

ML23159A127 (Summary)

ML23157A299 (Affidavit)

ML23157A137 (Presentation Non-proprietary)

ML23157A134 (Presentation – Proprietary)

***via email**

OFFICE	DORL/LLPB/PM*	DORL/LLPB/LA*	DORL/LLPB/BC*	DORL/LLPB/PM*
NAME	NOtto	DHarrison	GGeorge	NOtto
DATE	6/8/2023	6/9/2023	6/14/2023	6/14/2023

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