

# framatome

February 23, 2018  
NRC:18:007

PROD728

U.S. Nuclear Regulatory Commission  
Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

## **Additional Information Regarding BAW-10247P-A, Supplement 2P, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology For Boiling Water Reactors Supplement 2: Mechanical Methods"**

- Ref. 1: Letter, Gary A. Peters (AREVA Inc.) to Document Control Desk (NRC), "Request for Review and Approval of BAW-10247P-A, Supplement 2P, Revision 0, 'Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 2: Mechanical Methods'," NRC:16:012, April 29, 2016.
- Ref. 2: Letter, Dennis C. Morey (NRC) to Gary Peters (AREVA Inc.), "Draft Safety Evaluation for AREVA Inc. Topical Report BAW-10247P-A, Supplement 2P, Revision 0, 'Realistic Thermal-Mechanical Fuel Rod Methodology For Boiling Water Reactors, Supplement 2: Mechanical Methods' (CAC No. MF7708)," October 26, 2017.

Framatome Inc. (Framatome, formerly AREVA Inc.) requested the NRC's review and approval of the topical report BAW-10247P-A, Supplement 2P, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 2: Mechanical Methods" in Reference 1.

Framatome is requesting approval to use Zry-2 recrystallized (RXA) material for cladding and Z4B™ material for water channels in addition to approval for the use of various mechanical models with this topical report. A telephone call was held with the NRC staff on December 15, 2017 and Framatome agreed to provide the following information:

- 1) Additional text in the topical report to clarify the use of the mechanical models for Zry-2 RXA cladding.
- 2) A description of the material properties of Z4B™ and the mechanical analysis that would be performed for Z4B™ water channels in addition to fuel assembly growth.
- 3) A summary of the additional data that Framatome has gathered for Z4B™ water channel fuel assembly growth and of the recalculation of the growth model.

Framatome understands that this information will be used to support a modification of the draft safety evaluation (Reference 2) to reflect approval 1) to use Zry-2 recrystallized material for cladding, 2) to use Z4B™ material for water channels, and 3) a higher burnup limit for the fuel assembly growth model for Z4B™ water channels. The additional information is provided in the enclosures to this letter. Framatome would appreciate the issuance of the final SE by no later than June 2018.

Framatome Inc.  
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[www.framatome.com](http://www.framatome.com)

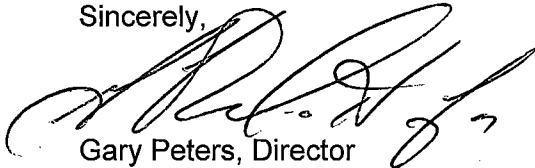
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Framatome considers some of the material contained in the enclosed documents to be proprietary. As required by 10 CFR 2.380(b), an affidavit is enclosed to support the withholding of information from public disclosure.

There are no commitments contained within this letter or its enclosures.

If you have any questions related to this information, please contact Ms. Gayle Elliott, Product Licensing Manager, by telephone at (434) 832-3347, or by e-mail at [Gayle.Elliott@framatome.com](mailto:Gayle.Elliott@framatome.com).

Sincerely,



Gary Peters, Director  
Licensing & Regulatory Affairs  
Framatome Inc.

cc: J. G. Rowley  
Project 728

Enclosures

1. BAW-10247P-A, Supplement 2Q2P, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology For Boiling Water Reactors Supplement 2: Mechanical Methods"
2. BAW-10247NP-A, Supplement 2Q2NP, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology For Boiling Water Reactors Supplement 2: Mechanical Methods"
3. Notarized Affidavit

## AFFIDAVIT

STATE OF WASHINGTON    )  
                                  ) ss.  
COUNTY OF BENTON     )

1.       My name is Alan B. Meginnis. I am Manager, Product Licensing, for Framatome Inc. and as such I am authorized to execute this Affidavit.

2.       I am familiar with the criteria applied by Framatome to determine whether certain Framatome information is proprietary. I am familiar with the policies established by Framatome to ensure the proper application of these criteria.

3.       I am familiar with the Framatome information contained in the report BAW-10247P-A Supplement 2Q2P, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology For Boiling Water Reactors Supplement 2: Mechanical Methods Additional Information," dated February 2018 and referred to herein as "Document." Information contained in this Document has been classified by Framatome as proprietary in accordance with the policies established by Framatome for the control and protection of proprietary and confidential information.

4.       This Document contains information of a proprietary and confidential nature and is of the type customarily held in confidence by Framatome and not made available to the public. Based on my experience, I am aware that other companies regard information of the kind contained in this Document as proprietary and confidential.

5.       This Document has been made available to the U.S. Nuclear Regulatory Commission in confidence with the request that the information contained in this Document be withheld from public disclosure. The request for withholding of proprietary information is made

in accordance with 10 CFR 2.390. The information for which withholding from disclosure is requested qualifies under 10 CFR 2.390(a)(4) "Trade secrets and commercial or financial information."

6. The following criteria are customarily applied by Framatome to determine whether information should be classified as proprietary:

- (a) The information reveals details of Framatome's research and development plans and programs or their results.
- (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or service.
- (c) The information includes test data or analytical techniques concerning a process, methodology, or component, the application of which results in a competitive advantage for Framatome.
- (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for Framatome in product optimization or marketability.
- (e) The information is vital to a competitive advantage held by Framatome, would be helpful to competitors to Framatome, and would likely cause substantial harm to the competitive position of Framatome.

The information in the Document is considered proprietary for the reasons set forth in paragraphs 6(b), 6(d) and 6(e) above.

7. In accordance with Framatome's policies governing the protection and control of information, proprietary information contained in this Document have been made available, on a limited basis, to others outside Framatome only as required and under suitable agreement providing for nondisclosure and limited use of the information.

8. Framatome policy requires that proprietary information be kept in a secured file or area and distributed on a need-to-know basis.

9. The foregoing statements are true and correct to the best of my knowledge, information, and belief.

Alan E. Mezger

SUBSCRIBED before me this 21<sup>st</sup>  
day of February, 2018.

Hailey M. Siekawitch

Hailey M Siekawitch  
NOTARY PUBLIC, STATE OF WASHINGTON  
MY COMMISSION EXPIRES: 9/28/2020

