



July 21, 2017

NRC:17:032

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

PROJ0728

Publication of BAW-10247PA, Revision 0, Supplement 1P-A, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding"

In Reference 1 the NRC accepted topical report BAW-10247PA, Revision 0, Supplement 1P, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding" for referencing in license applications. The NRC requested that AREVA Inc. (AREVA) publish a proprietary and non-proprietary version of the report.

Changes to the topical report submitted for approval in Reference 2 were identified in References 3, 4 and 5. These changes have been incorporated in the proprietary and non-proprietary versions of the report, which are enclosed.

The published report is constructed in accordance with guidance provided on the NRC website. As required by 10 CFR 2.390(b) an affidavit is enclosed to support the withholding of the proprietary version of the report from public disclosure.

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

If you have any questions related to this submittal, please contact Mr. Morris Byram, Licensing Manager by telephone at 509-375-8166 or by e-mail at Morris.Byram@areva.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Peters', written over the typed name and title.

Gary Peters, Director
Licensing & Regulatory Affairs
AREVA Inc.

cc: J. G. Rowley
Project 728

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YGD1
NRR

AREVA INC.

3315 Old Forest Road, Lynchburg, VA 24501
Tel.: 434 832 3000 - www.areva.com

References

- Ref. 1: Letter, Kevin Hsueh (NRR) to Gary Peters (AREVA Inc.), "Final Safety Evaluation for AREVA NP Inc. Topical Report BAW-10247PA, Revision 0, Supplement 1P, Revision 0, 'Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding (CAC No. MF5421)'," April 21, 2017.
- Ref. 2: Letter, Ronnie Gardner (AREVA Inc.) to Document Control Desk (NRC) "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding," NRC:09:133, December 22, 2009.
- Ref. 3: Letter, Ronnie Gardner (AREVA Inc.) to Document Control Desk (NRC), "Transmittal of Revised Information for Review of Topical Report BAW-10247PA, Revision 0, Supplement 1P, Revision 0," NRC:10:093, October 22, 2010.
- Ref. 4: Letter, Pedro Salas (AREVA Inc.) to Document Control Desk (NRC), "Response to a Draft Request for Additional Information Regarding Report BAW-10247PA, Revision 0, Supplement 1P, Revision 0, 'Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding'," NRC:13:016, April 19, 2013.
- Ref. 5: Letter, Gary Peters (AREVA Inc.) to Document Control Desk (NRC), "Response to a Draft Request for Additional Information Regarding Report BAW-10247PA, Revision 0, Supplement 1P, Revision 0, 'Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding'," NRC-16-013, May 9, 2016.

Enclosures

1. BAW-10247PA, Revision 0, Supplement 1P-A, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding"
2. BAW-10247PA, Revision 0, Supplement 1NP-A, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding"
3. Notarized Affidavit

AFFIDAVIT

STATE OF WASHINGTON)
) ss.
COUNTY OF BENTON)

1. My name is Morris Byram. I am Manager, Product Licensing, for AREVA Inc. (AREVA) and as such I am authorized to execute this Affidavit.

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

3. I am familiar with the AREVA information contained in the document entitled "Publication of BAW-10247PA, Revision 0, Supplement 1P-A, Revision 0, "Realistic Thermal-Mechanical Fuel Rod Methodology for Boiling Water Reactors Supplement 1: Qualification of RODEX4 for Recrystallized Zircaloy-2 Cladding" referred to herein as "Document." Information contained in this document has been classified by AREVA as proprietary in accordance with the policies established by AREVA Inc. 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 AREVA 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 these documents 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 AREVA to determine whether information should be classified as proprietary:

- (a) The information reveals details of AREVA'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 AREVA.
- (d) The information reveals certain distinguishing aspects of a process, methodology, or component, the exclusive use of which provides a competitive advantage for AREVA in product optimization or marketability.
- (e) The information is vital to a competitive advantage held by AREVA, would be helpful to competitors to AREVA, and would likely cause substantial harm to the competitive position of AREVA.

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

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

8. AREVA 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.

Maris E. Bynum

SUBSCRIBED before me this 20th
day of July, 2017.

Hailey M. Siekawitch

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

