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Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Distribution of ANP-10320P, Revision 0, "Summary Report on Postirradiation Examinations of MOX Fuel"

- Ref. 1: Letter, James F. Mallay (Framatome ANP) to Document Control Desk (NRC), "Publication of BAW-10238(P)(A), Revision 1, 'MOX Fuel Design Report'," NRC:04:054, September 21, 2004.
- Ref. 2: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Distribution of ANP-10280P, Revision 0, 'Poolside Postirradiation Examination of MOX Lead Assemblies'," NRC:07:024, June 26, 2007.
- Ref. 3: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Distribution of ANP-10280P, Revision 2, 'Poolside Postirradiation Examination of MOX Lead Assemblies'," NRC:09:065, May 29, 2009.

Paragraph 3.7.1 of the safety evaluation of BAW-10238(P)(A), Revision 1, (Reference 1) discusses the inspection and testing program of the MOX lead test assemblies that were supplied to Duke Energy's Catawba Nuclear Station, Unit 1, for irradiation starting in spring of 2005. The inspection and testing program includes poolside postirradiation examinations that are to be performed after each irradiation cycle of the lead assemblies.

The first cycle of irradiation of the lead assemblies was completed in the fall of 2006. The results of the poolside postirradiation examination were provided to the NRC in Reference 2. All characteristics of the lead assemblies were found to be within the criteria for reinsertion for a second cycle of irradiation.

The second cycle of irradiation of the lead assemblies was completed in the spring of 2008. The results of the poolside postirradiation examination were provided to the NRC in Reference 3. With one exception, all characteristics of the fuel assemblies were found to be within the established acceptance criteria. The exception was that the fuel assembly axial growth exceeded the criterion.

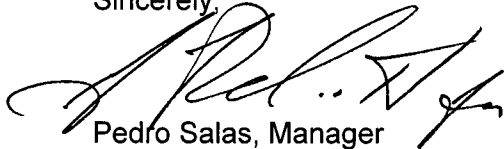
ANP-10320P, Revision 0, "Summary Report on Postirradiation Examinations of MOX Fuel," compares the results of the postirradiation examinations (PIEs) with predictions and expectations, to demonstrate that the fuel provided acceptable performance, and to confirm that the performance of the WG MOX can be adequately predicted. The primary focus of this report is on fuel pellet and fuel rod performance. Because the poolside examinations covered other parts of the fuel assemblies, there is also some discussion of the lead assembly design.

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Enclosed are proprietary and non-proprietary versions of report ANP-10320P, Revision 0, "Summary Report on Postirradiation Examinations of MOX Fuel," for information. AREVA NP considers some of the material contained in the enclosed document to be proprietary. As required by 10 CFR 2.390(b), an affidavit is enclosed to support the withholding of the information from public disclosure.

If you have any questions related to this submittal, please contact Ms. Gayle F. Elliott, Product Licensing Manager at 434-832-3347 or by e-mail at gayle.elliott@areva.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Pedro Salas", written over a faint, illegible background.

Pedro Salas, Manager
Corporate Regulatory Affairs
AREVA NP Inc.

Enclosures

cc: H. D. Cruz
Project 728

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 NP to determine whether information should be classified as proprietary:

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

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

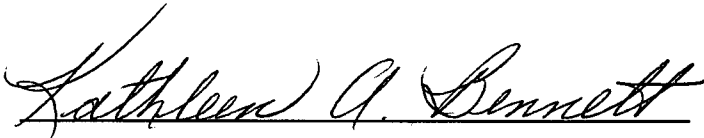
7. In accordance with AREVA NP's policies governing the protection and control of information, proprietary information contained in this Document have been made available, on a limited basis, to others outside AREVA NP only as required and under suitable agreement providing for nondisclosure and limited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

8. AREVA NP 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.

A handwritten signature in cursive script, appearing to be 'A. R. IV', written over a horizontal line.

SUBSCRIBED before me this 24th
day of February, 2012.

A handwritten signature in cursive script, reading 'Kathleen A. Bennett', written over a horizontal line.

Kathleen Ann Bennett
NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES: 8/31/15
Reg. # 110864

