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U.S. Nuclear Regulatory Commission  
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**Submittal of Revision 2 to ANP-10299P, "Applicability of AREVA NP Containment Response Evaluation Methodology to the U.S. EPR™ for Large Break LOCA Analysis - Technical Report"**

Ref. 1: E-mail, Getachew Tesfaye (NRC) to Ronda Pederson, et al (AREVA NP Inc.), "U.S. EPR Design Certification Application RAI No. 1," April 9, 2008.

AREVA NP Inc. (AREVA NP) is submitting the enclosed Revision 2 to ANP-10299P, "Applicability of AREVA NP Containment Response Evaluation Methodology to the U.S. EPR for Large Break LOCA Analysis - Technical Report." In addition to documenting the U.S. EPR scaling analysis methodology, the revised report also addresses the following Requests for Additional Information (RAI) provided to AREVA NP in Reference 1.

Question #	Relevant Sections
RAI 1 — 06.02.01-01	4.4, Appendices B & C

This concludes the formal AREVA NP response to RAI No. 1, and there are no questions from this RAI for which AREVA NP has not provided responses.

ANP-10299P, Revision 2 documents the results of a cold leg large break LOCA scaling analysis of the U.S. EPR containment design compared to the Heissdampfreaktor (HDR) test facility, including the relevant distortion analysis. To the extent practicable, changes to the report are denoted by change bars. Minor editorial and numbering changes are generally not marked. The enlarged scope of the report includes:

- Development of a suitable scenario.
- Discretization of the scenario into a manageable set of components or elements.
- Development of a closed set of governing equations for these elements based upon conservation laws and first principles.
- Normalization of these equations to develop non-dimensional coefficients.
- Evaluation of the non-dimensional coefficients to establish relative rankings of phenomenological processes.
- Identification of scaling distortions and evaluation of the impact of these distortions on the figure of merit.
- Assessment of data sufficiency.

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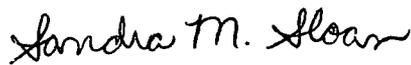
- Comparison of PIRT phenomena with system processes and non-dimensional coefficients to determine data range sufficiency and completeness.

AREVA NP will incorporate this report by reference in the U.S. EPR Final Safety Analysis Report (FSAR) contemporaneously with submittal of the response to RAI No. 209 in December 2009.

Regular and frequent communications between AREVA NP and the NRC staff are essential to timely resolution of containment-related questions. To that end, AREVA NP requests a public meeting with the NRC staff be scheduled in early February 2010 to discuss this report.

AREVA NP considers some of the material contained in the enclosure 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. Proprietary and non-proprietary versions of the attachments are provided on the enclosed CDs.

Sincerely,



Sandra M. Sloan, Manager  
New Plants Regulatory Affairs  
AREVA NP Inc.

Enclosures

cc: G. Tesfaye  
Docket No. 52-020



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 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 has 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.

Sandra M. Sloan

SUBSCRIBED before me this 2<sup>nd</sup>  
day of December, 2009.

Kathleen A. Bennett

Kathleen A. Bennett  
NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA  
MY COMMISSION EXPIRES: 8/31/2011

