



July 29, 2013  
NRC:13:064

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

**Submittal of AREVA NP Inc. Technical Report ANP-10318, "Pipe Rupture External Loading Effects on U.S. EPR™ Essential Structures, Systems, and Components," Revision 1**

The purpose of this submittal is to provide the NRC with Revision 1 of AREVA NP Inc. (AREVA NP) Technical Report ANP-10318, "Pipe Rupture External Loading Effects on U.S. EPR™ Essential Structures, Systems, and Components." This technical report describes the AREVA NP methodology used to conservatively calculate the external loading effects on essential structures, systems, and components (SSC) due to jet impingement, including unsteadiness, and potential blast effects. The revision to the technical report incorporates NRC feedback as well as revised methodology for blast analysis to determine the loading on essential SSCs.

In Reference 1, the NRC provided a request for additional information (RAI) regarding the U.S. EPR design certification application. In Reference 2, AREVA NP provided an interim response to RAI 354 Q03.06.02-35 and markups of proposed changes to Technical Report ANP-10318. In Reference 3, AREVA NP provided an updated schedule for revision to the technical report and final response to RAI 354 Q03.06.02-35.

Revision 1 of Technical Report ANP-10318 supersedes the markups provided in Reference 2 and supports AREVA NP's final response to RAI 354 Q03.06.02-35 provided in Reference 4. The revised technical report is incorporated by reference into the U.S. EPR Final Safety Analysis Report (FSAR) as part of the final response to RAI 354 Q03.06.02-35. AREVA NP requests that the NRC incorporate the review of this revised report into the evaluation of FSAR Chapter 3 in the Safety Evaluation Report for the U.S. EPR FSAR, in a manner consistent with other reports that are incorporated by reference into the U.S. EPR FSAR.

AREVA NP considers some of the material contained in the enclosures 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 technical report are enclosed with this letter.

If you have any questions related to this information, please contact Len Gucwa by telephone at (434) 832-3466, or by e-mail at [Len.Gucwa.ext@areva.com](mailto:Len.Gucwa.ext@areva.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Pedro Salas', is written over a large, circular scribble.

Pedro Salas, Director  
Regulatory Affairs  
AREVA NP Inc.

**AREVA NP INC.**

DOT7  
NRC

References:

1. Email, Getachew Tesfaye (NRC) to Martin C. Bryan (AREVA NP Inc.) "U.S. EPR Design Certification Application RAI No. 354 (4106, 4107, 4220), FSAR Ch. 3," March 16, 2010.
2. Letter, Sandra M. Sloan (AREVA NP Inc.), to the Document Control Desk (NRC), "Response to U.S. EPR Design Certification Application RAI 354, Supplement 29", NRC:11:094, August 30, 2011.
3. Letter, P. Salas (AREVA NP Inc) to Document Control Desk (NRC), "Periodic Update to Closure Plans for Resolution of Open Items for U.S. EPR Design Certification Application," NRC: 13:012, April 12, 2013.
4. Email, Dennis Williford (AREVA NP Inc.) to Amy M. Snyder (NRC), Supplement 40, Final Response for RAI 354, Question 03.06.02-35, July 29, 2013.

Enclosures:

1. Proprietary version of Technical Report ANP-10312P, "Pipe Rupture External Loading Effects on U.S. EPR™ Essential Structures, Systems, and Components," Revision 1
2. Non-Proprietary version of Technical Report ANP-10312NP, "Pipe Rupture External Loading Effects on U.S. EPR™ Essential Structures, Systems, and Components," Revision 1
3. Notarized Affidavit

cc: A. M. Snyder  
J. P. Segala  
Docket 52-020

AFFIDAVIT

COMMONWEALTH OF VIRGINIA            )  
  ) ss.  
CITY OF LYNCHBURG                    )

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

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

3. I am familiar with the AREVA NP information contained in the Technical Report ANP-10318P entitled, "Pipe Rupture External Loading Effects on U.S. EPR™ Essential Structures, Systems, and Components," Revision 1, dated July 2013 and referred to herein as "Document." Information contained in this Document has been classified by AREVA NP as proprietary in accordance with the policies established by AREVA NP 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 NP 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 AREVA NP to determine whether information should be classified as proprietary:

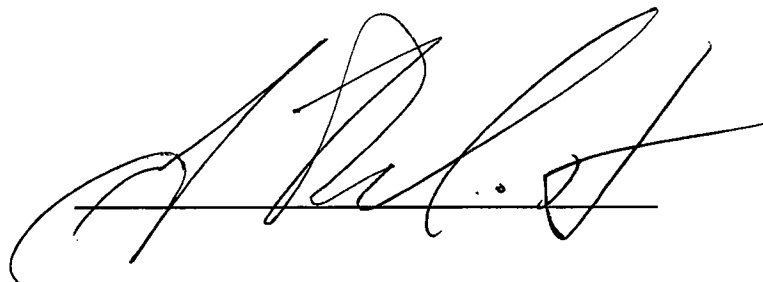
- (a) The information reveals details of AREVA NP's research and development plans and programs or their results.
- (b) Use of the information by a competitor would permit the competitor to significantly reduce its expenditures, in time or resources, to design, produce, or market a similar product or 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(c) and 6(d) above.

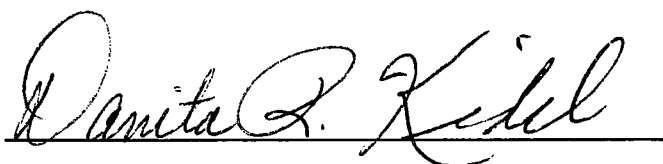
7. In accordance with AREVA NP's policies governing the protection and control of information, proprietary information contained in this Document has been made available, on a limited basis, to others outside AREVA NP only as required and under suitable agreement providing for nondisclosure and limited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

A large, stylized handwritten signature in black ink, written over a horizontal line.

SUBSCRIBED before me this 26  
day of July 2013.

A handwritten signature in black ink, written over a horizontal line.

Danita R. R. Kidd  
NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA  
MY COMMISSION EXPIRES: 12/31/2016  
Reg.#205569

