



~~PROPRIETARY INFORMATION WITHHOLD UNDER 10 CFR 2.390~~

May 25, 2016

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 16-185
NRAWDC R0
Docket No. 50-336
License No. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
PROPOSED LICENSE AMENDMENT REQUEST
REALISTIC LARGE BREAK LOSS OF COOLANT ACCIDENT ANALYSIS

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) requests an amendment, in the form of a change to the Technical Specifications (TS) to Facility Operating License Number DPR-65 for Millstone Power Station Unit 2 (MPS2). The proposed changes will add the AREVA topical report EMF-2103(P)(A) Realistic Large Break Loss of Coolant Accident (RLBLOCA) analysis methodology for Pressurized Water Reactors to MPS2 TS 6.9.1.8.b, "Core Operating Limits Report," which lists the analytical methods used to determine the core operating limits. Attachment 1 provides the description and assessment of the proposed change. Attachment 2 provides the marked-up TS pages to reflect the proposed TS changes. Attachment 3 provides the TS Bases change, which is provided for information only and will be incorporated in accordance with the TS Bases Control Program upon approval of this request.

In a teleconference on June 22, 2015, Dominion stated to the NRC staff that the MPS2 RLBLOCA license amendment request would be submitted based on the draft Safety Evaluation for AREVA topical report, EMF-2103(P), Revision 3, to initiate staff review as soon as practical. This was also stated to the NRC in subsequent phone calls on April 26, 2016 and May 3, 2016.

Attachment 4 provides a report containing the analysis of the MPS2 Final Safety Analysis Report (FSAR) Chapter 14 Large Break Loss of Coolant Accident (LBLOCA) using the RLBLOCA evaluation method. This report contains proprietary AREVA information. The non-proprietary version of this report is provided in Attachment 5. It is respectfully requested that Attachment 4 be withheld from public disclosure in accordance with 10 CFR 2.390. The AREVA application for withholding and affidavit is provided in Attachment 6.

As concluded in Attachment 1, the proposed amendment does not involve a significant hazards consideration pursuant to the provisions of 10 CFR 50.92. The proposed amendment has been reviewed and approved by the Facility Safety Review Committee.

Attachment 4 contains ~~proprietary information~~ that is being withheld from public disclosure under 10 CFR 2.390. Upon separation of Attachment 4, this letter is decontrolled.

ADD!
NRR

Commitments made in this letter: None

cc: U.S. Nuclear Regulatory Commission
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Attachment 1

Discussion of Proposed Technical Specification Change

**DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2**

1.0 Summary Description

Pursuant to 10 CFR 50.90, Dominion Nuclear Connecticut, Inc. (DNC) requests an amendment, in the form of a change to the Technical Specifications (TS), to Facility Operating License Number DPR-65 for Millstone Power Station Unit 2 (MPS2). The proposed change adds the AREVA topical report EMF-2103(P)(A), "Realistic Large Break LOCA Methodology for Pressurized Water Reactors" (Reference 1) to TS 6.9.1.8.b, "Core Operating Limits Report," which lists the analytical methods used to determine the core operating limits. The mark-up to TS 6.9.1.8.b reflecting the proposed change is provided in Attachment 2.

The methodology in EMF-2103(P)(A) for Realistic Large Break Loss of Coolant Accident (RLBLOCA) has been used for the MPS2 Large Break Loss of Coolant Accident (LBLOCA) analysis of the AREVA Standard CE14 HTP fuel product with M5 cladding, which DNC plans to introduce beginning with the fresh fuel for MPS2 Cycle 25 in spring 2017. Attachment 4 (Proprietary) and Attachment 5 (Non-Proprietary) provide a report documenting the analysis that will be added to the MPS2 Final Safety Analysis Report (FSAR) Section 14.6.5.1. LBLOCA using the method from EMF-2103(P)(A).

2.0 Detailed Description of Proposed Technical Specification Change

TS 6.9.1.8.b, "Core Operating Limits Report," currently references 17 approved analytical methods used to determine the core operating limits for MPS2. The proposed amendment would add EMF-2103(P)(A) to this list of methods as Reference 18. The proposed change is as follows:

Reference 18

- 18) EMF-2103(P)(A), "Realistic Large Break LOCA Methodology for Pressurized Water Reactors."

The mark-up to TS 6.9.1.8.b reflecting the proposed addition of EMF-2103(P)(A) to the list of approved methods is shown in Attachment 2.

3.0 Discussion

DNC is submitting a LBLOCA analysis using AREVA's RLBLOCA Evaluation Model (EM) (Reference 1) to support the use of M5 fuel rod cladding, which DNC plans to introduce beginning with the fresh fuel for MPS2 Cycle 25 in spring 2017. An exemption from 10 CFR 50.46 and Appendix K to allow the use of the M5 fuel rod cladding was approved by the NRC in a letter dated May 12, 2015 (Reference 2).

The methodology of EMF-2103(P)(A) is used to establish limits for the MPS2 Core Operating Limit Report parameters listed below.

TS 3.1.3.6 – Regulating CEA Insertion Limits

TS 3.2.1 – Linear Heat Rate

TS 3.2.3 – Total Unrodded Integrated Radial Peaking Factor - F_r^T

The MPS2 RLBLOCA analysis is described in Attachment 4 and Attachment 5 and is performed for the AREVA Standard CE14 HTP fuel assembly. The analysis in Attachment 4 and Attachment 5 uses Revision 3 of the AREVA RLBLOCA EM (Reference 1). In a letter dated April 14, 2016 (Reference 3), the NRC issued a draft safety evaluation for Revision 3 of the AREVA RLBLOCA EM. Issuance of the final safety evaluation for Revision 3 of the RLBLOCA EM is pending.

The current MPS2 AREVA HTP fuel product using Zircaloy-4 cladding is not included in the RLBLOCA analysis presented in Attachment 4 and Attachment 5. The current Appendix K LBLOCA EM and analysis presented in FSAR Section 14.6.5.1 are being maintained to address the current MPS2 AREVA fuel product using Zircaloy-4 cladding. Thus, the topical report EMF-2087(P)(A), "SEM/PWR-98: ECCS Evaluation Model for PWR LBLOCA Applications," remains in the TS 6.9.1.8.b, "Core Operating Limits Report" list of analytical methods used to determine the core operating limits.

The differences between the AREVA HTP fuel product currently used at MPS2 and the AREVA Standard CE14 HTP fuel do not impact the thermal hydraulic performance of either fuel design (Section 3.0 of Attachment 4 and Attachment 5). Because there is no impact to the thermal hydraulic performance of either fuel design, there is no Peak Clad Temperature penalty applied to either fuel product LBLOCA analysis due to the presence of a mixed core.

As discussed in Section 2.6 of Attachment 4 and Attachment 5, the RLBLOCA analysis models one full train of Low Pressure Safety Injection and High Pressure Safety Injection after applying the single active failure assumption. The RLBLOCA analysis does not credit flow from the charging system, which is consistent with the current LBLOCA analysis in MPS2 FSAR Section 14.6.5.1. In a letter dated January 25, 2016 (Reference 8), MPS2 submitted a license amendment request to revise TS 3.5.2, "Emergency Core Cooling Systems, ECCS Subsystems – $T_{avg} > 300^\circ\text{F}$," to remove the charging system and eliminate Surveillance Requirement 4.5.2.e from the TS. Because the RLBLOCA analysis does not credit the charging system for LBLOCA mitigation, the proposed amendment to add the AREVA RLBLOCA topical report to MPS2 TS 6.9.1.8.b does not affect the January 25, 2016 license amendment request.

A change to the MPS2 TS Bases is included in Attachment 3. The TS Bases change removes reference to Appendix K to 10 CFR 50. The TS Bases change is provided for information only and will be incorporated in accordance with the TS Bases Control Program upon approval of this request.

4.0 Technical Evaluation

This proposed amendment adds AREVA's RLBLOCA Methodology for Pressurized Water Reactors, EMF-2103(P)(A), to TS 6.9.1.8.b. Attachment 4 and Attachment 5 provide a detailed description of the MPS2 LBLOCA analysis using the AREVA RLBLOCA EM (Reference 1) and the analytical results. The plant parameters used as input to the MPS2 RLBLOCA analysis for the AREVA Standard CE14 HTP fuel support the current plant surveillance limits. Any future changes in plant surveillance limits would be made under the provisions of 10 CFR 50.59 and would be evaluated against the reporting requirements of 10 CFR 50.46. Such changes would be evaluated against both the RLBLOCA analysis for the AREVA Standard CE14 HTP fuel with M5 cladding and the Appendix K LBLOCA analysis for the AREVA HTP fuel product with Zircaloy-4 cladding. As reported in Section 2.0 of Attachment 4 and Attachment 5, the MPS2 RLBLOCA analysis meets the Emergency Core Cooling System (ECCS) performance acceptance criteria in 10 CFR 50.46(b) paragraphs (1) through (3). Included in the description of the analysis is a discussion of compliance with the limitations contained in the NRC draft safety evaluation issued for the EMF-2103(P) Revision 3 methodology (Reference 3). The MPS2 RLBLOCA analysis complies with the draft safety evaluation limitations.

5.0 Regulatory Evaluation

5.1 Applicable Regulatory Requirements and Criteria

The Realistic Large Break Loss of Coolant Accident (RLBLOCA) analysis included in Attachment 4 and Attachment 5 satisfies the requirements of 10 CFR 50.46(b) paragraphs (1) through (3). An exemption from 10 CFR 50.46 and Appendix K to allow the use of the M5 fuel rod cladding was approved by the NRC in a letter dated May 12, 2015 (Reference 2). The proposed change does not require relief from any other regulatory requirements and does not affect conformance with a General Design Criteria differently than described in the Millstone Power Station Unit 2 (MPS2) Final Safety Analysis Report (FSAR).

5.2 No Significant Hazards Consideration

Dominion Nuclear Connecticut, Inc. (DNC) has evaluated whether or not a significant hazards consideration is involved with the proposed amendment to add EMF-2103(P)(A), "Realistic Large Break LOCA Methodology for Pressurized Water Reactors," to the list of approved methodologies in Technical Specification (TS) 6.9.1.8.b for determining core operating limits at MPS2. The significant hazards evaluation was performed by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change to TS 6.9.1.8.b permits the use of the AREVA RLBLOCA methodology to analyze the MPS2 LBLOCA to ensure that the plant continues to meet the Emergency Core Cooling System (ECCS) performance acceptance criteria in 10 CFR 50.46. The RLBLOCA analysis demonstrates MPS2 continues to satisfy the 10 CFR 50.46 ECCS performance acceptance criteria using an NRC-approved evaluation model. The proposed change to the list of NRC-approved methodologies listed in TS 6.9.1.8.b has no impact on how the plant is operated or configured. Addition of this methodology to the list of methodologies in TS 6.9.1.8.b does not impact either the probability or consequences of an accident currently evaluated in Chapter 14 of the UFSAR.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change to TS 6.9.1.8.b adds topical report EMF-2103(P)(A) to the list of approved methodologies for determining core operating limits at MPS2. The proposed amendment has no adverse effect on plant operation or accident mitigation equipment. The amendment does not create any new credible failure mechanisms, malfunctions, or accident initiators not considered in the current design basis accidents (DBAs). The response of the plant and operators following a DBA will not be changed. The proposed amendment does not create the possibility of a new failure mode associated with any equipment or human performance failures. Thus, the possibility of a new or different type of accident is not created.

Therefore, the proposed change does not create the possibility of a new or different kind of accident or malfunction from those previously evaluated within the FSAR.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change to TS 6.9.1.8.b adds topical report EMF-2103(P)(A) to the list of approved methodologies for determining core operating limits at MPS2.

Approved methodologies will be used to ensure that the plant continues to meet applicable design criteria and safety analysis acceptance criteria. The proposed amendment has no effect on the ability of the plant to mitigate DBAs and ensure consequences of the existing DBA remains bounding. The margin of safety to mitigate consequences of DBAs is not reduced. Structures, systems and components used to mitigate DBAs are not affected. No changes are being made to safety limits or safety system settings required by TS. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above information, DNC concludes that the proposed license amendment presents no significant hazards consideration under the criteria set forth in 10 CFR 50.92(c), and, accordingly, a finding of no significant hazards consideration is justified.

5.3 Precedents

The proposed change to TS 6.9.1.8.b adds topical report EMF-2103(P)(A) to the list of approved methodologies for determining core operating limits at MPS2. The NRC has previously approved the addition of EMF-2103(P)(A) to the list of approved methodologies for determining core operating limits for other plants.

North Anna Units 1 and 2: References 4 and 5 , respectively.
St. Lucie Unit 1: Reference 6
Calvert Cliffs: Reference 7

MPS2 is the first plant to apply EMF-2103(P)(A), Revision 3. Therefore, no precedent exists for the analysis of the MPS2 LBLOCA using the methodology of EMF-2103(P)(A), Revision 3.

5.4 Conclusion

Based on the considerations presented above, there is reasonable assurance that (1) the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the requested license amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 Environmental Considerations

DNC has reviewed the proposed license amendment for environmental considerations. The proposed license amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion from an environmental assessment as set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR

51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 References

1. EMF-2103(P), Revision 3, "Realistic Large Break LOCA Methodology for Pressurized Water Reactors," September 2013.
2. Richard Guzman (USNRC) letter to David A. Heacock (Dominion Nuclear Connecticut, Inc.), "Millstone Power Station, Unit No. 2 – Exemption from 10 CFR 50.46 and Appendix K to Allow Use of M5™ Alloy for Fuel Cladding (TAC No. MF3917)," May 12, 2015 (ADAMS Accession Number ML15093A497).
3. Kevin Hsueh (USNRC) Letter to Gary Peters (AREVA), "Draft Safety Evaluation for AREVA NP Inc. Topical Report EMF-2103(P), Revision 3, 'Realistic Large Break LOCA Methodology for Pressurized Water Reactors' (TAC No. MF2904)," April 14, 2016 (ADAMS Accession Number ML16098A366).
4. Stephen Monarque (USNRC) letter to David Christian (Dominion), "North Anna Power Station, Unit 1 – Issuance of Amendment Re: Use of Framatome ANP Advanced Mark-BW Fuel (TAC No. MB4714)," August 20, 2004 (ADAMS Accession Number ML042330659).
5. Stephen Monarque (USNRC) letter to David Christian (Dominion), "North Anna Power Station, Unit 2 – Issuance of Amendment Re: Use of Framatome ANP Advanced Mark-BW Fuel (TAC No. MB4715)," April 1, 2004 (ADAMS Accession Number ML040960040).
6. Tracy Orf (USNRC) letter to Mano Nazar (FPL), "St. Lucie Plant, Unit 1 – Issuance of Amendment Regarding Extended Power Uprate (TAC No. ME5091)" July 9, 2012 (ADAMS Accession Number ML12156A208).
7. Douglas Pickett (USNRC) letter to George Gellrich (Calvert Cliffs), "Calvert Cliffs Nuclear Power Plan, Unit Nos. 1 and 2 – Amendment Re: Transition from Westinghouse Nuclear Fuel to AREVA Nuclear Fuel (TAC Nos. ME2831 and ME2832)," February 18, 2011 (ADAMS Accession Number ML110390224).
8. Letter from M. D. Sartain (Dominion) to USNRC, "Dominion Nuclear Connecticut, Inc., Millstone Power Station Unit 2, License Amendment Request to Revise ECCS TS 3/4.5.2 and FSAR Chapter 14 to Remove Charging," January 25, 2016 (ADAMS Accession Number ML16029A168).

Attachment 2

Marked-up Technical Specification Page

**DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2**

~~May 20, 2015~~

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT (CONT.)

- 8) XN-NF-621(P)(A), "Exxon Nuclear DNB Correlation for PWR Fuel Designs," Exxon Nuclear Company.
- 9) XN-NF-82-06(P)(A), and Supplements 2, 4 and 5, "Qualification of Exxon Nuclear Fuel for Extended Burnup," Exxon Nuclear Company.
- 10) ANF-88-133(P)(A) and Supplement 1, "Qualification of Advanced Nuclear Fuels PWR Design Methodology for Rod Burnups of 62 GWd/MTU," Advanced Nuclear Fuels Corporation.
- 11) XN-NF-85-92(P)(A), "Exxon Nuclear Uranium Dioxide/Gadolinia Irradiation Examination and Thermal Conductivity Results," Exxon Nuclear Company.
- 12) ANF-89-151(P)(A), "ANF-RELAP Methodology for Pressurized Water Reactors: Analysis of Non-LOCA Chapter 15 Events," Advanced Nuclear Fuels Corporation.
- 13) EMF-1961(P)(A), "Statistical Setpoint/Transient Methodology for Combustion Engineering Type Reactors," Siemens Power Corporation.
- 14) EMF-2310(P)(A), "SRP Chapter 15 Non-LOCA Methodology for Pressurized Water Reactors," Framatome ANP.
- 15) EMF-92-153(P)(A) and Supplement 1, "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," Siemens Power Corporation.
- 16) EMF-92-116(P)(A) Revision 0, "Generic Mechanical Design Criteria for PWR Fuel Designs," Siemens Power Corporation.
- 17) BAW-10240(P)(A) Revision 0, "Incorporation of M5™ Properties in Framatome ANP Approved Methods," May 2004.

- c. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, and transient and accident analysis limits) of the safety analysis are met.
- d. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

MILLSTONE - UNIT 2

6-19

Amendment No. ~~148, 163, 228, 250~~
~~260, 281, 291, 295, 319, 320~~

18) EMF-2103(P)(A), "Realistic Large Break LOCA Methodology for Pressurized Water Reactors."

Attachment 3

**Marked-up Technical Specification Bases Page
(For Information Only)**

**DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2**

~~September 3, 1998~~

3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

BASES

3/4.5.1 SAFETY INJECTION TANKS

The OPERABILITY of each of the RCS SITs ensures that a sufficient volume of borated water will be immediately forced into the reactor core through each of the cold legs in the event the RCS pressure falls below the pressure of the SITs. This initial surge of water into the core provides the initial cooling mechanism during large RCS pipe ruptures.

The limits on SIT volume, boron concentration and pressure ensure that the assumptions used for SIT injection in the accident analysis are met.

If the boron concentration of one SIT is not within limits, it must be returned to within the limits within 72 hours. In this condition, ability to maintain subcriticality or minimum boron precipitation time may be reduced, but the reduced concentration effects on core subcriticality during reflood are minor. Boiling of the ECCS water in the core during reflood concentrates the boron in the saturated liquid that remains in the core. In addition, the volume of the SIT is still available for injection. Since the boron requirements are based on the average boron concentration of the total volume of three SITs, the consequences are less severe than they would be if a SIT were not available for injection. Thus, 72 hours is allowed to return the boron concentration to within limits.

If one SIT is inoperable, for a reason other than boron concentration or the inoperability of water level or pressure channel instrumentation, the SIT must be returned to OPERABLE status within 24 hours. In this condition, the required contents of three SITs cannot be assumed to reach the core during a LOCA ~~as is assumed in Appendix K to 10CFR50.~~

Reference 1 provides a series of deterministic and probabilistic analysis findings that support 24 hours as being either "risk beneficial" or "risk neutral" in comparison to shorter periods for restoring the SIT to OPERABLE status. Reference 1 discusses recent best-estimate analysis that confirmed that for large-break LOCAs, core melt can be prevented by either operation of one LPSI pump or the operation of one HPSI pump and a single SIT. Reference 1 also discusses plant-specific probabilistic analysis that evaluated the risk-impact of the 24 hour recovery period in comparison to shorter recovery periods.

If the SIT cannot be restored to OPERABLE status within the associated completion time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3

Reference

- 1 CE NPSD-994, "CEOG Joint Applications Report on Safety Injection Tank AOT/SIT Extension," April 1995.

Attachment 6

AREVA APPLICATION FOR WITHHOLDING AND AFFIDAVIT

**DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2**

AFFIDAVIT

COMMONWEALTH OF VIRGINIA)
) ss.
CITY OF LYNCHBURG)

1. My name is Nathan E. Hottle. 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 following document: "ANP-3316P Rev. 0, Millstone Unit 2 M5 Upgrade, Realistic Large Break LOCA Analysis," 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 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 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(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.

Sherry L. McFaden

SUBSCRIBED before me this 11th
day of May, 2016.

Sherry L. McFaden

Sherry L. McFaden
NOTARY PUBLIC, COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES: 10/31/18
Reg. # 7079129

