



E-42121  
June 16, 2015

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Subject: Re-submittal of AREVA Inc. Application for Approval of the Spent Fuel Cask Design for the NUHOMS® EOS System, Docket 72-1042

- Reference: 1) Revised Response to RSI #2 Structural-NP Request and Revision 2 to AREVA Inc. Application for Approval of the Spent Fuel Cask Design for the NUHOMS® EOS System (Docket 72-1042, TAC No. L24976) (submittal TN E-41532, transmitted to the NRC on April 3, 2015).
- 2) Letter from John Nguyen (NRC) to Paul Triska (AREVA Inc.), "Application for Approval of the Spent Fuel Cask Design for the NUHOMS® EOS, Docket No. 72-1042 Acknowledgement of Withdrawal (TAC No. L24976)", April 27, 2015.

Pursuant to 10 CFR 72.230, AREVA Inc. (AREVA) hereby resubmits an application for approval of a spent fuel storage cask design, developed by AREVA and designated the NUHOMS® EOS System. AREVA requests a 20-year initial term for the NUHOMS® EOS System. A safety analysis report (SAR) describing the NUHOMS® EOS System is enclosed, along with a proposed certificate of compliance (CoC) and proposed technical specifications (TS). Since Reference 1 provided Revision 2 of the SAR and proposed CoC and TS, this revision is labeled as Revision 3. Revision 3 changes to the SAR pages are tracked with italicized text and revision bars in the right margin to provide NRC staff reviewers with a convenient way to identify the changes made since Revision 2. The changes in Revision 3 are only to one aspect of the structural analysis, associated with the items delineated by the NRC staff in Reference 2. No other areas of the EOS application were changed or impacted by the changes made in the structural area.

The NUHOMS® EOS System provides for the horizontal storage of high burnup spent pressurized water reactor (PWR) and boiling water reactor (BWR) fuel assemblies (FAs) in dry shielded canisters (DSCs) that are placed in an EOS horizontal storage module (EOS-HSM) utilizing an EOS transfer cask (EOS-TC). The new PWR and BWR DSCs are the EOS-37PTH DSC and the EOS-89BTH DSC, respectively. The NUHOMS® EOS System is an improved version of the NUHOMS® HD System described in CoC No. 1030. The EOS-TCs are similar to the previously licensed TCs. The EOS-HSMs are similar to the previously licensed HSM-H.

This submittal contains proprietary information, which may not be used for any purpose other than NRC staff review of the application. In accordance with 10 CFR 2.390, I am providing an affidavit specifically requesting that you withhold this proprietary information from public disclosure. Public

## AREVA TN

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Enclosures transmitted herein contain SUNSI. When separated from enclosures, this transmittal document is decontrolled.

versions of proprietary SAR parts are provided. Because Enclosure 8 is entirely proprietary, no public version of this enclosure is provided.

The following enclosures are included:

- Enclosure 1 provides the affidavit pursuant to 10 CFR 2.390.
- Enclosure 2 provides a list of changed SAR pages with a reason for the change.
- Enclosures 3 and 4 provide Revision 3 of the proposed CoC and proposed TS, respectively.
- Enclosures 5 and 6 provide Revision 3 of the SAR, as proprietary and public versions, respectively.
- Enclosure 7 provides a listing of computer files contained in Enclosure 8.
- Enclosure 8 provides computer files that are associated with the structural, thermal and nuclear analyses of the NUHOMS® EOS System.

Should you have any questions regarding this application, please contact Mr. Dennis Williford by telephone at (704) 805-2223, or by email at [Dennnis.Williford@areva.com](mailto:Dennnis.Williford@areva.com).

Sincerely,



Paul Triska  
Vice President, Technical Services

cc: John (Chau) N. Nguyen (NRC SFM) as follows, all provided in a separate mailing:

- 10 computer disks with the cover letter and Enclosures 1 through 7
- One hard drive with Enclosure 8

Enclosures:

1. Affidavit Pursuant to 10 CFR 2.390
2. List of Changed SAR Pages with Reason for Change
3. Revision 3 to Proposed Certificate of Compliance
4. Revision 3 to Proposed Technical Specifications
5. NUHOMS® EOS System Safety Analysis Report, Revision 3 (Proprietary Version)
6. NUHOMS® EOS System Safety Analysis Report, Revision 3 (Public Version)
7. Listing of Computer Files Contained in Enclosure 8
8. Computer Files associated with the analyses of the NUHOMS® EOS System (Proprietary)

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**Document Components:**

001 Public AREVA Inc. Transmittal Letter.pdf, 723,302 bytes  
002 Public Enc 1 Affidavit.pdf, 902,055 bytes  
003 Public Enc 2 List of Changed SAR Pages.pdf, 73,902 bytes  
004 Public Enc 3 Proposed CoC - R3.pdf, 203,370 bytes  
005 Public Enc 4 Proposed TS - R3.pdf, 589,011 bytes  
  
006 SUNSI Enc 5 SAR 1-of-10 R3 Cover to Ch 3.pdf, 22,818,366 bytes, Proprietary  
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027 SUNSI Enc 8 Computer Files (folder) 245,919,068,160 bytes, Proprietary\*

\*Certain computer input files in this enclosure were compressed by the analytical software application and must remain in that form in order to be useful to the NRC technical reviewers.

**AREVA TN**

**OSM#1 (Entire Submittal) (Portable Hard Drive):**

001 Public AREVA Inc. Transmittal Letter.pdf, 723,302 bytes  
002 Public Enc 1 Affidavit.pdf, 902,055 bytes  
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