

NUCLEAR REGULATORY COMMISSION

[NRC-2016-0118]

**Applications and Amendments to Facility Operating Licenses and Combined Licenses
Involving Proposed No Significant Hazards Considerations and Containing Sensitive
Unclassified Non-Safeguards Information and Order Imposing Procedures for Access to
Sensitive Unclassified Non-Safeguards Information**

AGENCY: Nuclear Regulatory Commission.

ACTION: License amendment requests; opportunity to comment, request a hearing, and petition for leave to intervene; order.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) received and is considering approval of four amendment requests. The amendment requests are for the Cooper Nuclear Station (CNS); Duane Arnold Energy Center (DAEC); and Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3. For each amendment request, the NRC proposes to determine that it involves no significant hazards consideration. In addition, each amendment request contains sensitive unclassified non-safeguards information (SUNSI).

DATES: Comments must be filed by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. A request for a hearing must be filed by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Any potential party as defined in § 2.4 of title 10 of the *Code of Federal Regulations* (10 CFR), who believes access to SUNSI is necessary to respond to this notice must request document

access by **[INSERT DATE 10 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2016-0118**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.
- **Mail comments to:** Cindy Bladey, Office of Administration, Mail Stop: OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Lynn Ronewicz, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-1927, e-mail: Lynn.Ronewicz@nrc.gov.

SUPPLEMENTARY INFORMATION:**I. Obtaining Information and Submitting Comments****A. Obtaining Information**

Please refer to Docket ID **NRC-2016-0118** when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2016-0118**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in the SUPPLEMENTARY INFORMATION section.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID **NRC-2016-0118**, facility name, unit number(s), application date, and subject in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Background

Pursuant to Section 189a (2) of the Atomic Energy Act of 1954, as amended (the Act), the NRC is publishing this notice. The Act requires the Commission to publish notice of any amendments issued, or proposed to be issued and grants the Commission the authority to issue and make immediately effective any amendment to an operating license or combined license, as applicable, upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person.

This notice includes notices of amendments containing SUNSI.

III. Notice of Consideration of Issuance of Amendments to Facility Operating Licenses and Combined Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing

The Commission has made a proposed determination that the following amendment requests involve no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. The basis for this proposed determination for each amendment request is shown below.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of 60 days after the date of publication of this notice. The Commission may issue the license amendment before expiration of the 60-day period provided that its final determination is that the amendment involves no significant hazards consideration. In addition, the Commission may issue the amendment prior to the expiration of the 30-day comment period if circumstances change during the 30-day comment period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility. If the Commission takes action prior to the expiration of either the comment period or the notice period, it will publish a notice of issuance in the *Federal Register*. If the Commission makes a final no significant hazards consideration determination, any hearing will take place after issuance. The Commission expects that the need to take this action will occur very infrequently.

A. Opportunity to Request a Hearing and Petition for Leave to Intervene

Within 60 days after the date of publication of this notice, any person(s) whose interest may be affected by this action may file a request for a hearing and a petition to intervene with respect to issuance of the amendment to the subject facility operating license or combined license. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Agency Rules of Practice and Procedure" in 10 CFR part 2. Interested person(s) should consult a current copy of 10 CFR 2.309, which is available at the NRC's PDR, located at One White Flint North, Room O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. The NRC's regulations are accessible electronically from the NRC Library on the NRC's Web site at <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. If a request for a hearing or petition for leave to intervene is filed within 60 days, the Commission or a presiding officer designated by the Commission or by the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the Chief Administrative Judge of the Atomic Safety and Licensing Board will issue a notice of a hearing or an appropriate order.

As required by 10 CFR 2.309, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements: (1) the name, address, and telephone number of the requestor or petitioner; (2) the nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the requestor's/petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order which may be entered in the proceeding on the requestor's/petitioner's interest. The petition must also set

forth the specific contentions which the requestor/petitioner seeks to have litigated at the proceeding.

Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the requestor/petitioner shall provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the requestor/petitioner intends to rely in proving the contention at the hearing. The requestor/petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the requestor/petitioner intends to rely to establish those facts or expert opinion. The petition must include sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the requestor/petitioner to relief. A requestor/petitioner who fails to satisfy these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing with respect to resolution of that person's admitted contentions, including the opportunity to present evidence and to submit a cross-examination plan for cross-examination of witnesses, consistent with NRC regulations, policies and procedures.

Petitions for leave to intervene must be filed no later than 60 days from the date of publication of this notice. Requests for hearing, petitions for leave to intervene, and motions for leave to file new or amended contentions that are filed after the 60-day deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the three factors in 10 CFR 2.309(c)(1)(i)-(iii). If a hearing is requested, and the Commission has not made a final determination on the issue of no significant hazards

consideration, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, then any hearing held would take place before the issuance of any amendment unless the Commission finds an imminent danger to the health or safety of the public, in which case it will issue an appropriate order or rule under 10 CFR part 2.

A State, local governmental body, Federally-recognized Indian tribe, or agency thereof, may submit a petition to the Commission to participate as a party under 10 CFR 2.309(h)(1). The petition should state the nature and extent of the petitioner's interest in the proceeding. The petition should be submitted to the Commission by **[INSERT DATE 60 DAYS AFTER THE DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. The petition must be filed in accordance with the filing instructions in the "Electronic Submissions (E-Filing)" section of this document, and should meet the requirements for petitions for leave to intervene set forth in this section, except that under § 2.309(h)(2) a State, local governmental body, or Federally-recognized Indian tribe, or agency thereof does not need to address the standing requirements in 10 CFR 2.309(d) if the facility is located within its boundaries. A State, local governmental body, Federally-recognized Indian tribe, or agency thereof may also have the opportunity to participate under 10 CFR 2.315(c).

If a hearing is granted, any person who does not wish, or is not qualified, to become a party to the proceeding may, in the discretion of the presiding officer, be permitted to make a limited appearance pursuant to the provisions of 10 CFR 2.315(a). A person making a limited appearance may make an oral or written statement of position on the issues, but may not

otherwise participate in the proceeding. A limited appearance may be made at any session of the hearing or at any prehearing conference, subject to the limits and conditions as may be imposed by the presiding officer. Persons desiring to make a limited appearance are requested to inform the Secretary of the Commission by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

B. Electronic Submissions (E-Filing)

All documents filed in NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC's E-Filing rule (72 FR 49139; August 28, 2007). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by e-mail at hearing.docket@nrc.gov, or by telephone at 301-415-1677, to request (1) a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a request or petition for hearing (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/getting-started.html>. System requirements for accessing the E-Submittal server are detailed in the NRC's "Guidance for Electronic Submission," which is available on the agency's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. Participants may attempt to use other software not listed on the Web site, but should note that the NRC's E-Filing system does not support unlisted software, and the NRC Meta System Help Desk will not be able to offer assistance in using unlisted software.

If a participant is electronically submitting a document to the NRC in accordance with the E-Filing rule, the participant must file the document using the NRC's online, Web-based submission form. In order to serve documents through the Electronic Information Exchange System, users will be required to install a Web browser plug-in from the NRC's Web site. Further information on the Web-based submission form, including the installation of the Web browser plug-in, is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>.

Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with NRC guidance available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. A filing is considered complete at the time the documents are submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The E-Filing system also distributes an e-mail notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the

filer need not serve the documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC Meta System Help Desk through the "Contact Us" link located on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>, by e-mail to MSHD.Resource@nrc.gov, or by a toll-free call at 1-866-672-7640. The NRC Meta System Help Desk is available between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) first class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, Attention: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at <http://ehd1.nrc.gov/ehd/>, unless excluded pursuant to an order of the Commission, or the presiding officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. However, in some instances, a request to intervene will require including information on local residence in order to demonstrate a proximity assertion of interest in the proceeding. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

For further details with respect to this amendment action, see the application for amendment which is available for public inspection at the NRC's PDR, located at One White Flint North, Room O1-F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available documents created or received at the NRC are accessible electronically through ADAMS in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the PDR's Reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov.

Nebraska Public Power District (NPPD), Docket No. 50-298, Cooper Nuclear Station (CNS),
Nemaha County, Nebraska

Date of amendment request: April 21, 2016. A publicly-available version is in ADAMS under Package Accession No. ML16120A367.

Description of amendment request: **This amendment request contains sensitive unclassified non-safeguards information (SUNSI).** The proposed amendment would revise the value of the Safety Limit Minimum Critical Power Ratio (SLMCPR) for two recirculation loop operation (TLO) and for single recirculation loop operation (SLO) in the CNS Technical Specification (TS) 2.1.1.2 based on analysis performed for CNS operation in Cycle 30. Specifically, for TS 2.1.1.2, the amendment will change the value of the Minimum Critical Power Ratio (MCPR) for TLO from greater than to equal to (\geq) 1.11 to \geq 1.12 and the value of the MCPR for SLO from \geq 1.13 to \geq 1.14.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

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

Response: No.

The basis of the SLMCPR is to ensure no mechanistic fuel damage is calculated to occur if the limit is not violated. The new SLMCPR values preserve the existing margin to transition boiling. The derivation of the revised SLMCPR for CNS, for incorporation into the Technical Specifications and its use to determine plant and cycle-specific thermal limits, has been performed using Nuclear Regulatory Commission approved methods. The revised SLMCPR values do not change the method of operating the plant and have no effect on the probability of an accident, initiating event or transient.

Based on the above, NPPD concludes that the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed changes result only from a specific analysis for the CNS core reload design. These changes do not involve any new or different

methods for operating the facility. No new initiating events or transients result from these changes.

Based on the above, NPPD concludes that the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

Response: No.

The values of the proposed SLMCPR provide a margin of safety by ensuring that no more than 0.1% of fuel rods are expected to be in a boiling transition if the Minimum Critical Power Ratio limit is not violated. The proposed changes will ensure the appropriate level of fuel protection is maintained. Additionally, operational limits are established based on the proposed SLMCPR to ensure that the SLMCPR is not violated during all modes of operation. This will ensure that the fuel design safety criteria are met (i.e., that at least 99.9% of the fuel rods do not experience transition boiling during normal operation as well as anticipated operational occurrences).

Based on the above, NPPD concludes that the proposed changes do not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Attorney for licensee: Mr. John C. McClure, Nebraska Public Power District, Post Office Box 499, Columbus, Nebraska 68602-0499.

NRC Acting Branch Chief: Shaun M. Anderson.

NextEra Energy Duane Arnold, LLC, Docket No. 50-331, Duane Arnold Energy Center (DAEC), Linn County, Iowa

Date of amendment request: March 15, 2016. A publicly-available version is in ADAMS under Package Accession No. ML16077A229.

Description of amendment request: **This amendment request contains sensitive unclassified non-safeguard information (SUNSI).** The proposed amendment would revise the DAEC Technical Specification (TS) Section 4.3.1, "Fuel Storage, Criticality," and TS Section 4.3.3, "Fuel Storage, Capacity," in accordance with the spent fuel pool criticality safety analysis report enclosed in the application. The amendment would also add a new requirement to TS 5.5, "Programs and Manuals," for a Spent Fuel Pool Neutron Absorber Monitoring Program.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

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

Response: No.

The proposed amendment involves a new spent fuel pool criticality safety analysis and proposes modified or new TS requirements. The new spent fuel pool criticality safety analysis does not involve a physical change to any plant system nor does it involve a change to any of the accident mitigation features previously evaluated.

The proposed amendment does not change or modify the fuel, fuel handling processes, spent fuel storage racks, decay heat generation rate, or the spent fuel pool cooling and cleanup system.

Operation in accordance with the proposed amendment will not significantly increase the probability of a fuel mis-positioning event because the new spent fuel pool criticality safety analysis demonstrates that fuel assemblies that meet the new TS requirements can be stored in any spent fuel pool location without restriction.

There is no dose consequence associated with an abnormal condition since the criticality safety analysis acceptance criteria preclude criticality and does not involve a radiological release.

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 amendment involves a new spent fuel pool criticality safety analysis and proposes modified or new TS requirements. The new spent fuel pool criticality safety analysis does not involve a physical change to any plant system.

The proposed amendment does not change or modify the fuel, fuel handling processes, spent fuel storage racks, decay heat generation rate, or the spent fuel pool cooling and cleanup system. The proposed amendment does not change the method of fuel movement or fuel storage and does not create the potential for a new accident.

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

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

Response: No.

10 CFR 50.68, Criticality Accident Requirements, requires the spent and fresh fuel storage racks to maintain the effective neutron multiplication factor, k_{eff} , less than or equal to 0.95 when fully flooded with unborated water, which includes an allowance for uncertainties. Therefore, for criticality, the required safety margin is 5%, including a conservative margin to account for engineering and manufacturing uncertainties. The new spent fuel pool criticality safety analysis and proposed TS changes continue to satisfy this requirement.

The new spent fuel pool criticality safety analysis does not affect spent fuel heat generation or the spent fuel pool cooling systems. In addition, the radiological consequences of a dropped fuel assembly remain unchanged as the anticipated fuel damage due to a fuel handling accident is unaffected by the implementation of the new spent fuel pool criticality safety analysis. The proposed change reduces the capacity of the spent fuel pool which either does not impact or increases the margin of safety.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Attorney for licensee: Mr. William Blair, P.O. Box 14000, Juno Beach, Florida 33408-0420.

NRC Branch Chief: David J. Wrona.

NextEra Energy Duane Arnold, LLC, Docket No. 50-331, Duane Arnold Energy Center (DAEC), Linn County, Iowa

Date of amendment request: May 18, 2016. A publicly-available version is in ADAMS under Package Accession No. ML16145A250.

Description of amendment request: **This amendment request contains sensitive unclassified non-safeguard information (SUNSI).** The proposed amendment would revise the DAEC Technical Specification (TS) Section 2.1.1, "Reactor Core SLs," to change the Safety Limit Minimum Critical Power Ratio (SLMCPR) for two recirculation loop operation and for single recirculation loop operation. The changes would reflect the cycle-specific analysis. The proposed amendment would also remove an outdated historical footnote from TS Table 3.3.5.1-1.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below, with NRC staff edits in square brackets:

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

Response: No.

The SLMCPR ensures that 99.9% of the fuel rods in the core will not be susceptible to boiling transition during normal operation or the most limiting postulated design-basis transient event. The new SLMCPR values preserve the existing margin to the onset of transition boiling; therefore, the probability of fuel damage is not increased as a result of this proposed change.

The determination of the new SLMCPRs has been performed using NRC-approved methods of evaluation. These plant-specific calculations are performed each operating cycle. The new SLMCPR values do not change the method of operating the plant; therefore, they have no effect on the probability of an accident initiating event or transient.

The proposed change does not involve any plant modifications or operational changes that could affect system reliability or performance or that could affect the probability of operator error. The proposed change does not affect any postulated accident precursors, does not affect any accident mitigating systems, and does not introduce any new accident initiation mechanisms.

[The removal of the historical footnote from TS Table 3.3.5.1-1 is administrative in nature and has no impact on accident analysis.]

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 SLMCPR is a TS numerical value, calculated to ensure that during normal operation and during abnormal operational transients, at least 99.9% of all fuel rods in the core do not experience transition boiling if the limit is not violated. The new SLMCPRs are calculated using NRC-approved methodology discussed in NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel." The proposed change does not involve any new modes of operation, any changes to setpoints, or any plant modifications. The new SLMCPRs have been shown to be acceptable for DAEC Cycle 26 operation. The core operating limits will continue to be developed using NRC-approved methods. The proposed SLMCPRs or methods for establishing the core operating limits do not result in the creation of any new precursors to an accident. The proposed change does not involve any new or different methods for operating the facility. No new initiating events or transients result from the proposed change.

[The removal of the historical footnote from TS Table 3.3.5.1-1 is administrative in nature and has no impact on accident analysis.]
Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The new SLMCPRs have been calculated using NRC-approved methods of evaluation with plant and cycle-specific input values for the fuel and core design for the upcoming cycle of operation. The SLMCPR values ensure that 99.9% of the fuel rods in the core will not be susceptible to boiling transition during normal operation or the most limiting postulated design-basis transient event. The MCPR operating limit is set appropriately above the safety limit value to ensure adequate margin when the cycle-specific transients are evaluated. Accordingly, the margin of safety is maintained with the revised values.

[The removal of the historical footnote from TS Table 3.3.5.1-1 is administrative in nature and has no impact on accident analysis.]

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Attorney for licensee: Mr. William Blair, P.O. Box 14000, Juno Beach, Florida 33408-0420.

NRC Branch Chief: David J. Wrona.

Tennessee Valley Authority, Docket Nos. 50-259, 50-260, and 50-296, Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3, Limestone County, Alabama

Date of amendment request: September 21, 2015, as supplemented by letters dated November 13, December 15, December 15, and December 18, 2015; and February 16, March 8, March 9, March 24, March 28, April 4, April 5, and April 14, 2016. Publicly-available versions are in ADAMS under Accession Nos. ML15282A154 (Package), ML15317A361, ML15351A097, ML15351A113, ML15355A413, ML16049A248, ML16069A142, ML16070A189, ML16085A143, ML16089A054, ML16095A293, ML16096A411, and ML16106A072, respectively.

Description of amendment request: **This amendment request contains sensitive unclassified non-safeguards information (SUNSI).** The proposed amendment would increase the authorized maximum steady-state reactor core power level for each unit from 3,458 megawatt thermal (MWt) to 3,952 MWt. This amendment authorizes an increase of approximately 20 percent above the original licensed thermal power (OLTP) level of 3,293 MWt, and an increase of approximately 14.3 percent above the current licensed thermal power level of 3,458 MWt.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented 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 increases the maximum authorized core power level for BFN from the current licensed thermal power (CLTP) of 3458 MWt to 3952 MWt. Evaluations and analysis of the nuclear steam supply system (NSSS) and balance of plant (BOP) structures, systems, and components (SSCs) that could be affected by the power uprate were performed in accordance with the approaches described in the following.

- GE Nuclear Energy, "Constant Pressure Power Uprate," NEDC-33004P-A (CLTR), Revision 4, dated July 2003
- GE Nuclear Energy, "Generic Guidelines for General Electric Boiling Water Reactor Extended Power Uprate," NEDC-32424P-A (ELTR1), dated February 1999
- GE Nuclear Energy, "Generic Evaluation of General Electric Boiling Water Reactor Extended Power Uprate," NEDC-32523P-A (ELTR2), dated February 1999

The Power Uprate Safety Analysis Report (PUSAR) summarizes the results of safety evaluations performed that justify uprating the licensed thermal power at BFN. The PUSAR uses GEH [General Electric-Hitachi] GE14 fuel as the principal reference fuel type for the evaluation of the impact of EPU [extended power uprate]. However, the BFN units will utilize AREVA ATRIUM 10XM fuel, with some legacy ATRIUM 10 fuel, under EPU conditions. Therefore, the AREVA Fuel Uprate Safety Analysis Report (FUSAR) for Browns Ferry Units 1, 2, and 3 and fuel related reports are provided to supplement the PUSAR and address the impact of EPU conditions on the AREVA fuel in the BFN units. The AREVA analyses contained in the FUSAR have provided disposition of the critical characteristics of the GE14 fuel and have been shown to bound ATRIUM 10XM and ATRIUM 10 fuel.

The fuel-related reports are as follows:

- ANP-3377, Browns Ferry Units 1, 2, and 3 LOCA [Loss-of-Coolant Accident] Break Spectrum Analysis for ATRIUM 10XM Fuel (EPU)
- ANP-3378, Browns Ferry Units 1, 2, and 3 LOCA-ECCS [Emergency Core Cooling System] Analysis MAPLHGR Limits for ATRIUM 10XM Fuel (EPU)
- ANP-3384, Browns Ferry Units 1, 2, and 3 LOCA-ECCS Analysis MAPLHGR Limits for ATRIUM 10 Fuel (EPU)
- ANP-3342, Browns Ferry EPU (120% OLTP) Equilibrium Fuel Cycle Design
- ANP-3372, Browns Ferry Unit 3 Cycle 19 EPU (120% OLTP) LAR [License Amendment Request] Reference Fuel Cycle Design
- ANP-3404, Browns Ferry Unit 3 Cycle 19 Representative Reload Analysis at Extended Power Uprate
- ANP-3343, Nuclear Fuel Design Report Browns Ferry EPU (120% OLTP) Equilibrium Cycle ATRIUM 10XM Fuel

- ANP-3386, Mechanical Design Report for Browns Ferry Units 1, 2 and 3 Extended Power Uprate (EPU) ATRIUM 10XM Fuel Assemblies
- ANP-3385, Mechanical Design Report for Browns Ferry Units 1, 2 and 3 Extended Power Uprate (EPU) ATRIUM 10 Fuel Assemblies
- ANP-3388, Fuel Rod Thermal-Mechanical Evaluation for Browns Ferry Extended Power Uprate
- ANP-3327, Evaluation of AREVA Fuel Thermal-Hydraulic Performance for Browns Ferry at EPU
- FS1-0019629/30, Browns Ferry Unit 3 Cycle 19 MCPR [Minimum Critical Power Ratio] Safety Limit Analysis With SAFLIM3D Methodology
- ANP-2860 Revision 2, Supplement 2, Browns Ferry Unit 1 – Summary of Responses to Request for Additional Information, Extension for Use of ATRIUM 10XM Fuel for Extended Power Uprate
- ANP-2637, Boiling Water Reactor Licensing Methodology Compendium
- ANP-3409, Fuel-Related Emergent Regulatory Issues

The evaluations concluded that all plant components, as modified, will continue to be capable of performing their design function at the proposed uprated core power level.

The BFN licensing and design bases, including BFN accident analysis, were also evaluated for the effect of the proposed power increase. The evaluation concluded that the applicable analysis acceptance criteria continue to be met.

Power level is not an initiator of any transient or accident; it is used as an input assumption to equipment design and accident analyses. The proposed change does not affect the release paths or the frequency of release for any accident previously evaluated in the FSAR [Final Safety Analysis Report]. SSCs required to mitigate transients remain capable of performing their design functions considering radiological consequences associated with the effect of the proposed EPU. The source terms used to evaluate the radiological consequences were reviewed and were determined to bound operation at EPU power levels. The results of EPU accident evaluations do not exceed NRC-approved acceptance limits.

The spectrum of postulated accidents and transients were reviewed and were shown to meet the regulatory criteria to which BFN is currently licensed. In the area of fuel and core design, the Safety Limit Minimum Critical Power Ratio (SLMCPR) and other Specified Acceptable Fuel Design Limits (SAFDLs) are still met. Continued compliance with the SLMPCR and other SAFDLs is confirmed on a cycle specific basis consistent with the criteria accepted by the NRC.

Challenges to the reactor coolant pressure boundary were evaluated at the EPU conditions of pressure, temperature, flow, and radiation and found to meet the acceptance criteria for allowable stresses. Adequate overpressure margin is maintained.

Challenges to the containment were also evaluated. The containment and its associated cooling system continue to meet applicable regulatory requirements. The calculated post event suppression pool temperatures remain within design limits, while ensuring adequate net positive suction head is maintained for required emergency core cooling system pumps.

Radiological releases were evaluated and found to be within the regulatory limits of 10 CFR 50.67, Accident Source Terms.

The modifications and methodology associated with the elimination of containment accident pressure credit do not change the design functions of the systems. By maintaining these functions, they do not significantly increase the probability or consequences of an accident previously evaluated.

The non-safety-related Replacement Steam Dryer (RSD) must function to maintain structural integrity and avoid generation of loose parts that may affect other SSCs. The RSD analyses demonstrate the structural integrity of the steam dryer is maintained at EPU conditions. Therefore, the RSD does not significantly increase the probability or consequences of an accident previously evaluated.

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 increases the maximum authorized core power level for BFN from the current licensed thermal power (CLTP) of 3458 MWt to 3952 MWt. An evaluation of the equipment that could be affected by the power uprate has been performed. No new accident scenarios or equipment failure modes were identified. The full spectrum of accident considerations was evaluated and no new or different kinds of

accidents were identified. For BFN, the standard evaluation methods outlined in the CLTR, ELTR1, ELTR2, PUSAR, FUSAR, and fuel related reports were applied to the capability of existing or modified safety-related plant equipment. No new accidents or event precursors were identified.

All SSCs previously required for mitigation of a transient remain capable of fulfilling their intended design functions. The proposed increase in power does not adversely affect safety-related systems or components and does not challenge the performance or integrity of any safety-related systems. The change does not adversely affect any current system interfaces or create any new interfaces that could result in an accident or malfunction of a different kind than was previously evaluated. Operating at the proposed EPU power level does not create any new accident initiators or precursors.

The modifications and methodology associated with the elimination of containment accident pressure credit do not change the design functions of the systems. The systems are not accident initiators and by maintaining their current function they do not create the possibility of a new or different kind of accident.

The new RSD does not have any new design functions. RSD analyses demonstrate that the RSD will be capable of performing the design function of maintaining structural integrity. Therefore, there are no new or different kinds of accidents from those previously evaluated.

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

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

Response: No.

Based on the analyses of the proposed power increase, the relevant design and safety acceptance criteria will be met without significant adverse effects or reduction in margins of safety. The analyses supporting EPU have demonstrated that the BFN SSCs are capable of safely performing at EPU conditions. The analyses identified and defined the major input parameters to the NSSS, and NSSS design transients, and evaluated the capability of the primary containment, NSSS fluid systems, NSSS and BOP components, as appropriate. Radiological consequences of design basis events remain within regulatory limits and are not increased significantly. The analyses confirmed that NSSS and BOP SSCs are capable of achieving EPU conditions without significant reduction in margins of safety, with the modifications discussed in this application.

Analyses have shown that the integrity of primary fission product barriers will not be significantly affected as a result of the power increase. Calculated loads on SSCs important to safety have been shown to remain within design allowables under EPU conditions for all design basis event categories. Plant response to transients and accidents do not result in exceeding acceptance criteria.

As appropriate, the evaluations that demonstrate acceptability of EPU have been performed using methods that have either been reviewed and approved by the NRC staff, or that are in compliance with regulatory review guidance and standards established for maintaining adequate margins of safety. These evaluations demonstrate that there are no significant reductions in the margins of safety.

Maximum power level is one of the inherent inputs that determine the safe operating range defined by the accident analyses. The Technical Specifications ensure that BFN is operated within the bounds of the inputs and assumptions used in the accident analyses. The acceptance criteria for the accident analyses are conservative with respect to the operating conditions defined by the Technical Specifications. The engineering reviews performed for the constant pressure EPU confirm that the accident analyses criteria are met at the revised maximum allowed thermal power of 3952 MWt. Therefore, the adequacy of the renewed Facility Operating License and Technical Specifications to maintain the plant in a safe operating range is also confirmed, and the increase in maximum allowable power level does not involve a significant decrease in a margin of safety.

The modifications and methodology associated with the elimination of containment accident pressure credit do not change the design functions within the applicable limits. The credit is associated with accident or event response and does not significantly affect accident initiators by maintaining their current functions and does not create the possibility of a new or different kind of accident. The proposed Technical Specifications associated with these modifications ensure that BFN is operated within the bounds of the inputs and assumptions used in the accident analyses.

The steam dryer is being replaced in order to ensure adequate margin to the established structural requirements is maintained. The new RSD does not have any new design functions and an analysis was performed to confirm it will be capable of maintaining its structural integrity. The power ascension test plan will verify that the RSD conservatively meets the vibration and stress requirements.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Attorney for licensee: General Counsel, Tennessee Valley Authority, 400 West Summit Hill Dr., WT 6A-K, Knoxville, Tennessee 37902.

NRC Branch Chief: Benjamin G. Beasley.

**Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards
Information for Contention Preparation.**

**Nebraska Public Power District, Docket No. 50-298, Cooper Nuclear Station, Nemaha
County, Nebraska**

**NextEra Energy Duane Arnold, LLC, Docket No. 50-331, Duane Arnold Energy Center,
Linn County, Iowa**

**Tennessee Valley Authority, Docket Nos. 50-259, 50-260, and 50-296, Browns Ferry
Nuclear Plant, Units 1, 2, and 3, Limestone County, Alabama**

A. This Order contains instructions regarding how potential parties to this proceeding may request access to documents containing SUNSI.

B. Within 10 days after publication of this notice of hearing and opportunity to petition for leave to intervene, any potential party who believes access to SUNSI is necessary to respond to this notice may request such access. A "potential party" is any person who intends

to participate as a party by demonstrating standing and filing an admissible contention under 10 CFR 2.309. Requests for access to SUNSI submitted later than 10 days after publication of this notice will not be considered absent a showing of good cause for the late filing, addressing why the request could not have been filed earlier.

C. The requester shall submit a letter requesting permission to access SUNSI to the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, and provide a copy to the Associate General Counsel for Hearings, Enforcement and Administration, Office of the General Counsel, Washington, DC 20555-0001. The expedited delivery or courier mail address for both offices is: U.S. Nuclear Regulatory Commission, 11555 Rockville Pike, Rockville, Maryland 20852. The e-mail address for the Office of the Secretary and the Office of the General Counsel are Hearing.Docket@nrc.gov and OGCmailcenter@nrc.gov, respectively.¹ The request must include the following information:

- (1) A description of the licensing action with a citation to this *Federal Register* notice;
- (2) The name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the action identified in C.(1); and
- (3) The identity of the individual or entity requesting access to SUNSI and the requester's basis for the need for the information in order to meaningfully participate in this adjudicatory proceeding. In particular, the request must explain why publicly-available versions of the information requested would not be sufficient to provide the basis and specificity for a proffered contention.

¹ While a request for hearing or petition to intervene in this proceeding must comply with the filing requirements of the NRC's "E-Filing Rule," the initial request to access SUNSI under these procedures should be submitted as described in this paragraph.

D. Based on an evaluation of the information submitted under paragraph C.(3) the NRC staff will determine within 10 days of receipt of the request whether:

(1) There is a reasonable basis to believe the petitioner is likely to establish standing to participate in this NRC proceeding; and

(2) The requestor has established a legitimate need for access to SUNSI.

E. If the NRC staff determines that the requestor satisfies both D.(1) and D.(2) above, the NRC staff will notify the requestor in writing that access to SUNSI has been granted. The written notification will contain instructions on how the requestor may obtain copies of the requested documents, and any other conditions that may apply to access to those documents. These conditions may include, but are not limited to, the signing of a Non-Disclosure Agreement or Affidavit, or Protective Order² setting forth terms and conditions to prevent the unauthorized or inadvertent disclosure of SUNSI by each individual who will be granted access to SUNSI.

F. Filing of Contentions. Any contentions in these proceedings that are based upon the information received as a result of the request made for SUNSI must be filed by the requestor no later than 25 days after the requestor is granted access to that information. However, if more than 25 days remain between the date the petitioner is granted access to the information and the deadline for filing all other contentions (as established in the notice of hearing or opportunity for hearing), the petitioner may file its SUNSI contentions by that later deadline. This provision does not extend the time for filing a request for a hearing and petition to intervene, which must comply with the requirements of 10 CFR 2.309.

² Any motion for Protective Order or draft Non-Disclosure Affidavit or Agreement for SUNSI must be filed with the presiding officer or the Chief Administrative Judge if the presiding officer has not yet been designated, within 30 days of the deadline for the receipt of the written access request.

G. Review of Denials of Access.

(1) If the request for access to SUNSI is denied by the NRC staff after a determination on standing and need for access, the NRC staff shall immediately notify the requestor in writing, briefly stating the reason or reasons for the denial.

(2) The requester may challenge the NRC staff's adverse determination by filing a challenge within 5 days of receipt of that determination with: (a) the presiding officer designated in this proceeding; (b) if no presiding officer has been appointed, the Chief Administrative Judge, or if he or she is unavailable, another administrative judge, or an administrative law judge with jurisdiction pursuant to 10 CFR 2.318(a); or (c) officer if that officer has been designated to rule on information access issues.

H. Review of Grants of Access. A party other than the requester may challenge an NRC staff determination granting access to SUNSI whose release would harm that party's interest independent of the proceeding. Such a challenge must be filed with the Chief Administrative Judge within 5 days of the notification by the NRC staff of its grant of access.

If challenges to the NRC staff determinations are filed, these procedures give way to the normal process for litigating disputes concerning access to information. The availability of interlocutory review by the Commission of orders ruling on such NRC staff determinations (whether granting or denying access) is governed by 10 CFR 2.311.³

³ Requesters should note that the filing requirements of the NRC's E-Filing Rule (72 FR 49139; August 28, 2007) apply to appeals of NRC staff determinations (because they must be served on a presiding officer or the Commission, as applicable), but not to the initial SUNSI request submitted to the NRC staff under these procedures.

I. The Commission expects that the NRC staff and presiding officers (and any other reviewing officers) will consider and resolve requests for access to SUNSI, and motions for protective orders, in a timely fashion in order to minimize any unnecessary delays in identifying those petitioners who have standing and who have propounded contentions meeting the specificity and basis requirements in 10 CFR part 2. Attachment 1 to this Order summarizes the general target schedule for processing and resolving requests under these procedures.

IT IS SO ORDERED.

Dated at Rockville, Maryland, this 17th day of June, 2016.

For the Nuclear Regulatory Commission.

/RA/

Annette L. Vietti-Cook,
Secretary of the Commission.

ATTACHMENT 1--General Target Schedule for Processing and Resolving Requests for Access to Sensitive Unclassified Non-Safeguards Information in this Proceeding

Day	Event/Activity
0	Publication of <i>Federal Register</i> notice of hearing and opportunity to petition for leave to intervene, including order with instructions for access requests.
10	Deadline for submitting requests for access to Sensitive Unclassified Non-Safeguards Information (SUNSI) with information: supporting the standing of a potential party identified by name and address; describing the need for the information in order for the potential party to participate meaningfully in an adjudicatory proceeding.
60	Deadline for submitting petition for intervention containing: (i) demonstration of standing; and (ii) all contentions whose formulation does not require access to SUNSI (+25 Answers to petition for intervention; +7 petitioner/requestor reply).
20	U.S. Nuclear Regulatory Commission (NRC) staff informs the requester of the staff's determination whether the request for access provides a reasonable basis to believe standing can be established and shows need for SUNSI. (NRC staff also informs any party to the proceeding whose interest independent of the proceeding would be harmed by the release of the information.) If NRC staff makes the finding of need for SUNSI and likelihood of standing, NRC staff begins document processing (preparation of redactions or review of redacted documents).
25	If NRC staff finds no "need" or no likelihood of standing, the deadline for petitioner/requester to file a motion seeking a ruling to reverse the NRC staff's denial of access; NRC staff files copy of access determination with the presiding officer (or Chief Administrative Judge or other designated officer, as appropriate). If NRC staff finds "need" for SUNSI, the deadline for any party to the proceeding whose interest independent of the proceeding would be harmed by the release of the information to file a motion seeking a ruling to reverse the NRC staff's grant of access.
30	Deadline for NRC staff reply to motions to reverse NRC staff determination(s).
40	(Receipt +30) If NRC staff finds standing and need for SUNSI, deadline for NRC staff to complete information processing and file motion for Protective Order and draft Non-Disclosure Affidavit. Deadline for applicant/licensee to file Non-Disclosure Agreement for SUNSI.

Day	Event/Activity
A	If access granted: issuance of presiding officer or other designated officer decision on motion for protective order for access to sensitive information (including schedule for providing access and submission of contentions) or decision reversing a final adverse determination by the NRC staff.
A + 3	Deadline for filing executed Non-Disclosure Affidavits. Access provided to SUNSI consistent with decision issuing the protective order.
A + 28	Deadline for submission of contentions whose development depends upon access to SUNSI. However, if more than 25 days remain between the petitioner's receipt of (or access to) the information and the deadline for filing all other contentions (as established in the notice of hearing or opportunity for hearing), the petitioner may file its SUNSI contentions by that later deadline.
A + 53	(Contention receipt +25) Answers to contentions whose development depends upon access to SUNSI.
A + 60	(Answer receipt +7) Petitioner/Intervenor reply to answers.
>A + 60	Decision on contention admission.