

**Proprietary Information Withhold from Public Disclosure
Under 10 CFR 2.390
This letter is decontrolled when separated from Enclosure 1**



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

CNL-19-028

February 14, 2019

10 CFR 50.4
10 CFR 2.390

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Unit 2
Renewed Facility Operating License No. DPR-52
NRC Docket No. 50-260

Subject: **Extended Power Uprate – Unit 2 Replacement Steam Dryer Revised Analysis and Limit Curves Report, Supplement 1**

- References:
1. NRC Letter to TVA, "Browns Ferry Nuclear Plant, Units 1, 2, and 3 – Issuance of Amendments Regarding Extended Power Uprate (CAC Nos. MF6741, MF6742, and MF6743)," dated August 14, 2017 (ML17032A120)
 2. TVA Letter to NRC, CNL-18-134, "Extended Power Uprate – Unit 2 Replacement Steam Dryer Revised Analysis and Limit Curves Report," dated November 29, 2018 (ML18334A351)

In Reference 1, the Nuclear Regulatory Commission (NRC) issued License Amendment Nos. 299, 323 and 283 to the Browns Ferry Nuclear Plant (BFN) Units 1, 2 and 3 Renewed Facility Operating Licenses (RFOs) to increase the authorized maximum power level from 3458 megawatts thermal (MWt) to 3952 MWt. This change to power level is considered an extended power uprate (EPU).

The amended RFOs contain specific license conditions that control the monitoring, evaluating, and taking prompt action in response to potential adverse flow effects as a result of the EPU on plant structures, systems, and components (including verifying the continued structural integrity of the replacement steam dryer (RSD)) during initial EPU power ascension. BFN Unit 2 License Condition 2.C(18)(a)3 requires Tennessee Valley Authority (TVA) to submit to the NRC, the results of the BFN Unit 2 revised RSD analysis utilizing the BFN Unit 3 on-dryer strain gauge based end-to-end bias and uncertainties at EPU conditions including updated limit curves and a list of dominant frequencies for BFN Unit 2.

In the Reference 2 letter, TVA provided the BFN Unit 2 revised RSD analysis and limit curves required by License Condition 2.C(18)(a)3. Enclosure 1 to this letter provides a revision to the information provided in Reference 2 to address the process for evaluating compliance with the BFN Unit 2 revised limit curves.

General Electric - Hitachi Nuclear Energy Americas LLC (GEH) considers portions of the information provided in Enclosure 1 of this letter to be proprietary and, therefore, exempt from public disclosure pursuant to 10 CFR 2.390. An affidavit for withholding information, executed by GEH, is provided in Enclosure 2. Therefore, on behalf of GEH, TVA requests that Enclosure 1 be withheld from public disclosure in accordance with the GEH affidavit and the provisions of 10 CFR 2.390.

There are no new regulatory commitments associated with this submittal. If there are any questions or if additional information is needed, please contact Michael A. Brown at (423) 751-3275.

Respectfully,



E. K. Henderson
Director, Nuclear Regulatory Affairs

Enclosures:

1. NEDC-33902P, Browns Ferry Nuclear Plant Unit 2 Replacement Steam Dryer Power Ascension Acceptance Limits, Revision 1 (proprietary)
2. Affidavit

cc (Enclosures):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant
State Health Officer, Alabama State Department of Public Health
(w/o Enclosure 1)

Enclosure 1

NEDC-33902P, Browns Ferry Nuclear Plant Unit 2 Replacement Steam Dryer Power Ascension
Acceptance Limits, Revision 1
(proprietary)

Enclosure 2

Affidavit

GE-Hitachi Nuclear Energy Americas, LLC

AFFIDAVIT

I, **Lisa K. Schichlein**, state as follows:

- (1) I am a Senior Project Manager, NPP/Services Licensing, Regulatory Affairs, GE-Hitachi Nuclear Energy Americas LLC (GEH), and have been delegated the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in GEH report NEDC-33902P, Revision 1, "Browns Ferry Nuclear Plant Unit 2 Replacement Steam Dryer Power Ascension Acceptance Limits," February 2019. This document is deemed proprietary in its entirety. The header of each page in this document carries the notation "GEH Proprietary Information – Non-Public^{3}." The superscript notation ^{3} refers to Paragraph (3) of this affidavit, which provides the basis for the proprietary determination.
- (3) In making this application for withholding of proprietary information of which it is the owner or licensee, GEH relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4), and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.390(a)(4) for "trade secrets" (Exemption 4). The material for which exemption from disclosure is here sought also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975 F.2d 871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704 F.2d 1280 (DC Cir. 1983).
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
 - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by GEH's competitors without license from GEH constitutes a competitive economic advantage over other companies;
 - b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
 - c. Information which reveals aspects of past, present, or future GEH customer-funded development plans and programs, resulting in potential products to GEH;
 - d. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reasons set forth in paragraphs (4)a. and (4)b. above.

- (5) To address the 10 CFR 2.390 (b) (4), the information sought to be withheld is being submitted to the NRC in confidence. The information is of a sort customarily held in confidence by GEH, and is in fact so held. The information sought to be withheld has, to

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the best of my knowledge and belief, consistently been held in confidence by GEH, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to the NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.

- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge, or subject to the terms under which it was licensed to GEH.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his delegate), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside GEH are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information identified in paragraph (2) above, is classified as proprietary because it contains detailed GEH design information of the methodology used in the design, analysis, and testing of the steam dryers for the GEH Boiling Water Reactor (BWR). Development of these methods, techniques, and information and their application for the design, modification, testing, and analyses methodologies and processes was achieved at a significant cost to GEH.

The development of the evaluation process along with the interpretation and application of the analytical results is derived from the extensive experience database that constitutes a major GEH asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GEH's competitive position and foreclose or reduce the availability of profit-making opportunities. The fuel design and licensing methodology is part of GEH's comprehensive BWR safety and technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology and includes development of the expertise to determine and apply the appropriate evaluation process. In addition, the technology base includes the value derived from providing analyses done with NRC-approved methods.

The research, development, engineering, analytical, and NRC review costs comprise a substantial investment of time and money by GEH.

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The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

GEH's competitive advantage will be lost if its competitors are able to use the results of the GEH experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.

The value of this information to GEH would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive GEH of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing and obtaining these very valuable analytical tools.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 8th day of February 2019.



Lisa K. Schichlein
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