



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

February 9, 2001

TVA-BFN-TS-396

10 CFR 2.790

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

Gentlemen:

In the Matter of )  
Tennessee Valley Authority )

Docket No. 50-260

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 2 - TECHNICAL SPECIFICATIONS (TS) CHANGE 396 - REVISED SAFETY LIMIT MINIMUM CRITICAL POWER RATIO (SLMCPR) - ADDITIONAL INFORMATION (TAC NO. MB0436)**

Reference: TVA letter to NRC dated November 21, 2000, Browns Ferry Nuclear Plant (BFN) - Unit 2 - Technical Specifications (TS) Change 396 - Revised Safety Limit Minimum Critical Power Ratio (SLMCPR) (TAC NO. MB0436)

By letter dated November 21, 2000 (Reference), TVA submitted a request for an amendment to the Unit 2 operating license to revise the Reactor Core SLMCPR in TS Section 2.1.1.2. A teleconference took place on February 2, 2001, between TVA, Global Nuclear Fuel (GNF) and the NRC staff to discuss issues raised during the staff's review of the license amendment request. As requested by the staff during the telephone call, TVA is providing a written response to one of the staff's questions. The response demonstrates that the reduction in SLMCPR for cycle 12 and the comparisons to the previous cycle 11 provided in the Reference letter are both reasonable and expected. It is TVA's understanding that the other issues raised during the telephone call were satisfactorily addressed and resolved. Enclosure 1 contains a non-proprietary version of the response prepared by GNF while Enclosure 2 contains a proprietary version. GNF has requested that the proprietary response be withheld from public disclosure pursuant to 10 CFR 2.790. An application and affidavit as required by 10 CFR 2.790(b)(1) is also included in Enclosure 2.

\*\*\* This document contains proprietary information \*\*\*

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U.S. Nuclear Regulatory Commission

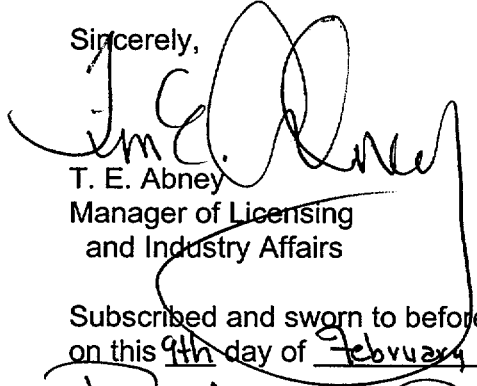
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TVA has reviewed the additional information contained in Enclosures 1 and 2 and has concluded that the determination of no significant hazards considerations and that the proposed change is exempt from environmental review remain valid as submitted in the November 21, 2000, letter.

If you have any questions concerning this change, please telephone me at (256) 729-2636.

Sincerely,



T. E. Abney  
Manager of Licensing  
and Industry Affairs

Subscribed and sworn to before me  
on this 9<sup>th</sup> day of February, 2001.

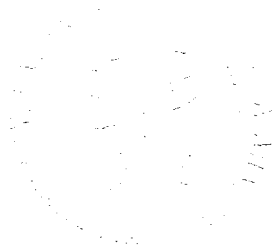
Barbara A. Blanton

Notary Public

My Commission Expires 9/22/01

Enclosures

cc: See page 3



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Enclosures

cc (Enclosures):

Mr. P. E. Fredrickson, Branch Chief  
U.S. Nuclear Regulatory Commission  
Region II  
61 Forsyth Street, S. W.  
Suite 23T85  
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NRC Resident Inspector  
Browns Ferry Nuclear Plant  
10833 Shaw Road  
Athens, Alabama 35611

Mr. William O. Long, Project Manager  
U.S. Nuclear Regulatory Commission  
One White Flint, North  
11555 Rockville Pike  
Rockville, Maryland 20852

**ENCLOSURE 1**

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNIT 2**

**PROPOSED TECHNICAL SPECIFICATIONS (TS) CHANGE TS-396  
ADDITIONAL INFORMATION**

**Response to NRC Information Request  
(Non-Proprietary Version)**

**Additional Information to Support**  
**Requested Reduction in Tech. Spec. SLMCPR for**  
**Browns Ferry-2, Cycle 12**

**NRC Request (as clarified from Telecon on 2/2/2001):**

Please explain why the GETAB SLMCPR values calculated for cycles 11 and 12 are so similar  
[[  
]]. Also discuss how the reduction in the calculated Cycle 12 SLMCPR for the case where the  
reduced power distribution uncertainties are applied compares to the reductions in SLMCPR  
values previously reviewed in Table 4.3 of NEDC-32694P-A.

**RESPONSE:**

GNF has shown that [[

(1)

]] the SLMCPR value for Cycle 12 is expected nominally to be  
0.0165 higher than the SLMCPR value calculated for Cycle 11. [[

(2)

]]The SLMCPR values from the NRC-approved Monte Carlo methodology are 1.0987 (Cycle  
11) and 1.1008 (Cycle 12) indicating an actual increase of 0.0021. [[

]]

Based on the uncertainty associated with these values one can conclude that the calculated  
GETAB SLMCPR value of 1.1008 for Browns Ferry-2, Cycle 12 is within the range of values  
that one may reasonably expect [[

]]

GNF has determined that the amount by which the GETAB SLMCPR will decrease when the  
reduced power distribution uncertainties are applied [[

(3)

]]. For Browns Ferry-2, Cycle 12 a [[ ]] reduction in the calculated  
SLMCPR for the reduced power distribution uncertainties was anticipated and in fact is the  
amount that was obtained from the approved Monte Carlo calculation.

[[ GNF Proprietary Information]]  
[[ enclosed by double brackets ]]

**ENCLOSURE 2**

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNIT 2**

**PROPOSED TECHNICAL SPECIFICATIONS (TS) CHANGE TS-396  
ADDITIONAL INFORMATION**

**Response to NRC Information Request  
(Proprietary Version)**



**Global Nuclear Fuel**

A Joint Venture of GE, Toshiba, & Hitachi

**Affidavit**

**I, Glen A. Watford**, being duly sworn, depose and state as follows:

- (1) I am Manager, Nuclear Fuel Engineering, Global Nuclear Fuel – Americas, L.L.C. (“GNF-A”) 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.

The information sought to be withheld is contained in the attachment, “*Additional Information to Support Requested Reduction in Tech. Spec. SLMCPR for Browns Ferry-2, Cycle 12*,”.

- (2) In making this application for withholding of proprietary information of which it is the owner or licensee, GNF-A 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 2.790(a)(4) for “trade secrets and commercial or financial information obtained from a person and privileged or confidential” (Exemption 4). The material for which exemption from disclosure is here sought is all “confidential commercial information,” and some portions 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, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).

- (3) 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 GNF-A’s competitors without license from GNF-A 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 cost or price information, production capacities, budget levels, or commercial strategies of GNF-A, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future GNF-A customer-funded development plans and programs, of potential commercial value to GNF-A;
- e. 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) The information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by GNF-A, and is in fact so held. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in (6) and (7) following. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by GNF-A, no public disclosure has been

made, and it is not available in public sources. All disclosures to third parties including any required transmittals to NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.

- (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 GNF-A. Access to such documents within GNF-A is limited on a "need to know" basis.
- (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 GNF-A 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) is classified as proprietary because it contains details of GNF-A's fuel design and licensing methodology.

The development of the methods used in these analyses, along with the testing, development and approval of the supporting methodology was achieved at a significant cost, on the order of several million dollars, to GNF-A or its licensor.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to GNF-A's competitive position and foreclose or reduce the availability of profit-making opportunities. The fuel design and licensing methodology is part of GNF-A'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 GNF-A or its licensor.

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.

GNF-A's competitive advantage will be lost if its competitors are able to use the results of the GNF-A 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 GNF-A 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 GNF-A 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.



Affidavit

State of North Carolina )  
County of New Hanover ) SS:

Glen A. Watford, being duly sworn, deposes and says:

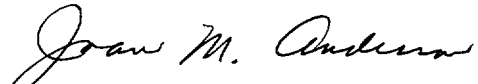
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at Wilmington, North Carolina, this 7<sup>th</sup> day of February, 2001



Glen A. Watford  
Global Nuclear Fuel – Americas, LLC

Subscribed and sworn before me this 7<sup>th</sup> day of February, 2001

  
Notary Public, State of North Carolina

My Commission Expires 10/08/01