



A PECO Energy/British Energy Company

Clinton Power Station

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U-603394
8E.100a

July 27, 2000

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

10CFR50.90

**Subject: Clinton Power Station Proposed Amendment
to Facility Operating License No. NPF-62 (LA-99-017)**

Dear Madam or Sir:

Pursuant to 10CFR50.90, AmerGen Energy Corporation, LLC (AmerGen), hereby applies for an amendment to Facility Operating License NPF-62, Appendix A – Technical Specifications (TS), for Clinton Power Station (CPS). Specifically, AmerGen requests a change to TS 2.1.1.2, “Reactor Core Safety Limits (SLs)” and TS 5.6.5, “Core Operating Limits Report (COLR),” Paragraph b. CPS is planning to implement a new core design for the next operating cycle (Cycle 8) that includes GE14 type fuel. Further, the new core design has been analyzed via the latest revision to the NRC-accepted methodology for core analysis, i.e., “General Electric Standard Application for Reactor Fuel,” NEDE-24011-P-A-14 and U.S. Supplement, June 2000 (GESTAR-II). As a result, the affected TS require revision to:

- Incorporate a revised Safety Limit Minimum Critical Power Ratio (SLMCPR) due to the use of cycle specific analysis performed by Global Nuclear Fuel (GNF, a joint venture of General Electric, Toshiba, and Hitachi) for CPS Cycle 8;
- Delete a previously added note in TS 2.1.1.2 which is no longer necessary; and
- Remove reference to letters that are unique to Cycle 7 in TS 5.6.5.b to accurately document the analytical methods used to determine the core operating limits.

Information supporting this request is contained in Attachment 2 to this letter Revised/marked-up pages for the Technical Specifications, reflecting the proposed changes, are contained in Attachment 3. Attachment 4, entitled “Additional Information Regarding the Cycle Specific SLMCPR for Clinton Power Station Cycle 8,” specifies the new SLMCPR for CPS. Attachment 4 contains information that is proprietary to GNF. GNF requests that the document be withheld from public disclosure in accordance with 10 CFR 2.790(a)(4). An affidavit supporting GNF’s request is also contained in Attachment 4. Attachment 5 contains a non-proprietary version of the GNF document. Attachment 1 contains an affidavit supporting the facts set forth in this letter and its attachments.

APD1

AmerGen respectfully requests NRC review and approval of this amendment by October 30, 2000 and that the amendment be made effective prior to the restart from the next refueling outage, the seventh refueling outage (RF-7). This application for an amendment of the CPS Operating License was reviewed by the site Facility Review Group and the AmerGen Nuclear Review Board.

Sincerely yours,


M. T. Coyle
Vice President

RWC/blf

Attachments

cc: NRC Clinton Licensing Project Manager
NRC Resident Office
Regional Administrator, Region III
Illinois Department of Nuclear Safety

AFFIRMATION

Michael T. Coyle, being first duly sworn, deposes and says: That he is Vice President for Clinton Power Station; that this application for amendment of Facility Operating License NPF-62 has been prepared under his supervision and direction; that he knows the contents thereof; and that the letter and the statements made and the facts contained therein are true and correct to the best of his knowledge and belief.

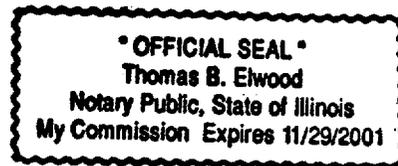
Date: This 27th day of July 2000.

Signed: Michael T. Coyle
Michael T. Coyle
Vice President

STATE OF ILLINOIS

} SS.

DEWITT COUNTY



Subscribed and sworn to before me this 27th day of July 2000

Thomas B. Elwood
(Notary Public)

INTRODUCTION

AmerGen Energy Company, LLC, licensee under Facility Operating License NPF-62 for Clinton Power Station (CPS), requests that the Technical Specifications (TS) contained in Appendix A to the Operating License be amended as follows:

- Revise TS 2.1.1.2 to reflect a change in the single reactor coolant recirculation loop (single-loop) Minimum Critical Power Ratio (MCPR) Safety Limit (also known as the Safety Limit MCPR or SLMCPR) due to the implementation of a new core design for the next operating cycle (Cycle 8). (The Cycle 8 analysis using NRC approved methodology did not change the two recirculation loop (two-loop) SLMCPR.)
- Delete the Note preceding TS 2.1.1.2 that is applicable only to the SLMCPRs established for Cycle 7 operation.
- Remove reference to correspondence that was submitted to NRC to support the Cycle 7 SLMCPRs, which is no longer applicable to TS 5.6.5, "Core Operating Limits Report," Paragraph b.

The TS pages (including the marked-up pages) showing the proposed changes are contained in Attachment 3. Attachment 4, "Additional Information Regarding the Cycle Specific SLMCPR for Clinton Unit 1 Cycle 8" specifies the SLMCPRs for CPS Cycle 8. Attachment 4 contains proprietary information that Global Nuclear Fuel (GNF) has requested be withheld from public disclosure. Attachment 5 is the non-proprietary version of Attachment 4.

This proposed License amendment provides a discussion and description of the proposed TS changes, a safety assessment (i.e., justification) for the proposed TS changes, an evaluation for No Significant Hazards Consideration, and the Environmental Impact Considerations.

DESCRIPTION AND JUSTIFICATION OF THE PROPOSED CHANGES

As noted above, the proposed changes involve revising the SLMCPR contained in TS 2.1.1.2 for operation with a single reactor coolant recirculation loop; deleting the Note preceding TS 2.1.1.2 that is applicable only to Cycle 7 operations; and removing the reference to three letters that were submitted to the NRC to support the Cycle 7 SLMCPRs, which is no longer applicable to TS 5.6.5, "Core Operating Limits Report (COLR)," Paragraph b. Each of these changes is addressed as follows.

TS 2.1.1.2 SLMCPR Change

The single-loop SLMCPR is being revised for CPS because of the new core design for Cycle 8 operations. The reactor core for Cycle 8 will contain new GE14 type fuel and will also use previously irradiated GE10 fuel. The GE14 fuel bundle is a 10 by 10 fuel rod array versus the 8 by 8 fuel array used in the GE8B and GE10 bundles which are currently installed in the reactor core. GNF has designed GE14 to be in compliance with Amendment 22 to "General Electric Standard Application for Reactor Fuel,"

NEDE-24011-P-A-14 and U. S. Supplement, NEDE-24011-P-A-14-US, June 2000 (GESTAR-II). Compliance with GESTAR-II was documented by GENE in NEDC-32868P, Revision 0, "GE14 Compliance With Amendment 22 of NEDE-24011-P-A (GESTAR-II) dated December, 1998. Amendment 22 provides the basis for compliance for GE11, GE13, and GE14 fuel types.

The SLMCPR analyses establish SLMCPR values that will ensure that greater than 99.9% of the fuel rods in the core avoid transition boiling if the limit is not violated. The SLMCPRs are calculated to include cycle specific parameters which include: 1) the actual core loading of GE10 and GE14 fuel, 2) conservative variations of the projected control blade patterns, 3) the actual bundle parameters (e.g., local peaking), and 4) the full cycle exposure range. The Cycle 8 SLMCPRs at CPS are 1.09 (two-loop operation) and 1.12 (single-loop operation) as shown in Attachment 3. Additional information regarding the 1.09 and 1.12 cycle specific SLMCPRs for CPS is in Attachments 4 and 5.

GESTAR-II provides the methodology for determining the cycle-specific MCPR safety limits that replace the former generic fuel type dependent values. SLMCPRs determined for future operating cycles in accordance with GESTAR-II do not need prior NRC approval for each cycle unless the value changes. The latest version of GESTAR-II was used for determining the CPS Cycle 8 (and future cycle) SLMCPRs. Specifically, Amendment 25 of NEDE-24011-P-A-14, which describes the methodology for determining the SLMCPR, was incorporated in GESTAR-II as of June 2000. The NRC safety evaluation approving Amendment 25 is contained in a letter from the NRC to General Electric dated March 11, 1999 (F. Akstulewicz (NRC) to G. A. Watford (GE), "Acceptance for Referencing of Licensing Topical Reports NEDC-32601P, *Methodology and Uncertainties for Safety Limit MCPR Evaluations*; NEDC-32694P, *Power Distribution Uncertainties for Safety Limit MCPR Evaluation*; and Amendment 25 to NEDE-24011-P-A on Cycle-Specific Safety Limit MCPR, (TAC Nos. M97490, M99069, and M97491)").

TS 2.1.1.2 Note Removal Change

Prior to March 11, 1999, Amendment 25 of NEDE-24011-P-A was not approved for generic use at each plant but was approved on a cycle-specific basis. Therefore, a note was added to TS 2.1.1.2 to specify that the approved SLMCPRs were applicable only for a specific cycle. For CPS, such a Note was incorporated for Cycle 7 via Amendment 113 to the CPS Operating License, dated January 27, 1997. As a result of NRC approval of Amendment 25 of NEDE-24011-P-A-14, the Note that was incorporated by Amendment 113 in TS 2.1.1.2 can be deleted.

TS 5.6.5.b Removal of Reference to Letters Change

TS 5.6.5, Paragraph b, provides the reference to the analytical methods used to determine the core operating limits. TS 5.6.5, Paragraph b currently references the approved "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-14 (GESTAR-II), as well as three letters to the NRC: U-602624 dated August 15, 1996, U-602651 dated October 28, 1996, and U-602662 dated November 15, 1996. These letters were incorporated when CPS License Amendment 113, dated January 22, 1997, was issued to support Cycle 7. As part of the proposed changes, TS 5.6.5, Paragraph b, is being updated to remove these

references since they will no longer be applicable to CPS. The approved version of GESTAR-II referenced in TS 5.6.5, Paragraph b, contains the analytical methods used to determine the core operating limits for Cycle 8. Revising the TS to remove the reference to the three letters is an administrative change which will ensure that the reference contained in the CPS TS is accurate and consistent with other licensing documents.

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

In accordance with 10 CFR 50.92, the proposed changes to the operating license involve No Significant Hazards Consideration if operation of the facility in accordance with the proposed changes would not: (1) involve a significant increase in the probability or consequences of any accident previously evaluated, (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 proposed changes to the CPS operating license has been evaluated against each of these three criteria, and it has been determined that the changes do not involve a Significant Hazards Consideration because:

- (1) The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The SLMCPR, which is determined by using NRC approved methods, ensures that during normal operation and/or anticipated operational occurrences greater than 99.9% of all fuel rods in the core avoid the onset of transition boiling. (The operating limit for MCPR is determined by adding the change in Critical Power Ratio for anticipated operational occurrences to the SLMCPR. For limiting faults such as a loss of coolant accident, SLMCPR does not apply.) Although the SLMCPR is established to minimize the potential for fuel damage in response to anticipated operational occurrences, it has no impact on the cause of such occurrences. That is, establishment of the SLMCPR has no impact on the equipment failures or events that can lead to such occurrences. Therefore, the proposed change does not involve an increase in the probability of an accident.

The derivation of the cycle-specific SLMCPRs for incorporation into the TS has been performed using the methodology discussed in "General Electric Standard Application for Reactor Fuel," NEDE-24011-P-A-14 (GESTAR-II), June 2000. Amendment 25, which describes the methodology for determining the SLMCPR, was incorporated into GESTAR-II in June 2000. GESTAR-II, Amendment 25 was approved by the NRC as of a March 11, 1999 safety evaluation report.

The basis of the MCPR safety limit is to ensure that greater than 99.9% of all fuel rods in the reactor core avoid the onset of transition boiling if the limit is not violated. The proposed SLMCPR preserves the existing margin to transition boiling and fuel damage in the event of a postulated transient/accident. The fuel licensing acceptance criteria for the SLMCPR calculation apply to the next operating cycle at CPS (Cycle 8) in the same manner as they have applied previously. The new core design for two-loop and single-loop operation that includes GE14 fuel, is in compliance with Amendment 22 to "General Electric Standard Application for Reactor Fuel," NEDE-

24011-P-A-14 and U. S. Supplement, NEDE-24011-P-A-14-US, June 2000 (GESTAR-II) which provides the NRC approved fuel licensing criteria. Since the basis of the MCPR safety limit remains unchanged, the probability of fuel damage and the potential consequences of anticipated operational occurrences is not increased. Therefore, the proposed TS changes do not involve an increase in the probability or consequences of an accident previously evaluated.

In addition to the proposed change to the single-loop SLMCPR, the Note preceding TS 2.1.1.2 previously incorporated as part of License Amendment 113 is being proposed to be deleted. The Note associated with TS 2.1.1.2 was originally included to ensure that the SLMCPRs values were only applicable for the identified cycle (Cycle 7). Since that time, Amendment 25 to NEDE-24011-P-A-14 has been approved by the NRC, and new SLMCPRs have been calculated for the forthcoming fuel cycle, so this Note is no longer necessary. The Note was for information only and has no impact on the design or operation of the reactor. The proposed deletion of the Note is an administrative change that does not involve an increase in the probability or consequences of an accident previously evaluated.

The analysis contained in TS 5.6.5, "Core Operating Limits Report (COLR)," Paragraph b., is proposed to be updated to remove the references to the three letters that were submitted to the NRC to support Cycle 7 and which are not applicable to subsequent operating cycles, and to retain the reference to the ongoing standard non-cycle specific analysis approved by the NRC (i.e., GESTAR). This is an administrative change to ensure that the references contained in the CPS TS are accurate and consistent with other licensing documents. Therefore, this change does not involve an increase in the probability or consequences of an accident previously evaluated.

Based on the above, the proposed changes to the TS do not involve an increase in the probability or consequences of an accident.

- (2) The proposed TS changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The new SLMCPR limit for CPS nuclear fuel, including GE-14 fuel, has been determined using NRC approved methods. Use of the NRC-approved methodology preserves the basis for the MCPR safety limit which ensures that during normal operation and during an anticipated operational occurrence greater than 99.9% of all fuel rods in the core avoid the onset of transition boiling. For other accidents such as a loss of coolant accident, the SLMCPR does not apply. The proposed change does not involve any new modes of operation, modifications to plant equipment, and any setpoint changes. As a result, the proposed change does not involve a new or different kind of accident from any accident previously evaluated.

With regard to the previously described changes concerning the Note associated with TS 2.1.1.2 and references in TS 5.6.5, Paragraph b, these changes are administrative in nature. As such, these changes do not create the possibility of a new or different kind of accident from any that were previously evaluated.

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

(3) The proposed changes do not involve a significant reduction in the margin of safety.

The SLMCPRs ensure that greater than 99.9% of all fuel rods in the core will avoid the onset of transition boiling if the limit is not violated when all uncertainties are considered, thereby preserving the fuel cladding integrity. In addition, appropriate M CPR Operating Limits will continue to be enforced by procedures such that in the event of a transient, there will be adequate margin to the SLMCPR. The M CPR Operating Limits are based on the SLMCPR and NRC approved methods in GESTAR-II. Therefore, the proposed change to the single-loop SLMCPR will not involve a reduction in the margin of safety previously approved by the NRC.

Additionally, the proposed changes that remove the note preceding TS 2.1.1.2 and the removal of outdated references in TS 5.6.5, Paragraph b, are administrative changes that will not reduce the margin of safety previously approved by the NRC.

Based on the above, the proposed changes to the TS do not involve any reduction in the margin of safety.

Based upon the above analysis, the proposed changes will not increase the probability or consequences of any accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in the margin of safety. Therefore, the proposed changes meet the requirements of 10 CFR 50.92(c) and involve no significant hazard consideration.

Environmental Impact Consideration

The proposed SLMCPR and administrative changes to the license were evaluated against the criteria of 10 CFR 51.22 for environmental considerations. The proposed changes satisfy the approved design criteria for the facility and ensure that the facility continues to be operated within acceptable operational limits. Therefore, the proposed changes (1) do not increase individual or cumulative occupational radiation exposures, (2) do not change the types or increase the amount of effluents that may be released offsite, and (3) as discussed in this enclosure, do not involve a significant hazards consideration. Based on the foregoing, it has been concluded that the proposed Technical Specification change meet the criteria given in 10 CFR 51.22(c)(9) for categorical exclusion from the requirement for an Environmental Impact Statement.

**Technical Specification Markups and Revised Technical Specifications
For Reload 7 / Cycle 8**

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be \leq 25% RTP.

2.1.1.2 With the reactor steam dome pressure \geq 785 psig and core flow \geq 10% rated core flow:

-----NOTE-----
Only applicable for Cycle 7 operation.

1.12

MCPR shall be \geq 1.09 for two recirculation loop operation or \geq 1.10 for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be \leq 1325 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed:

2.2.1 Within 1 hour, notify the NRC Operations Center, in accordance with 10 CFR 50.72.

2.2.2 Within 2 hours:

2.2.2.1 Restore compliance with all SLs; and

2.2.2.2 Insert all insertable control rods.

2.2.3 Within 24 hours, notify the plant manager and the corporate executive responsible for overall plant nuclear safety.

(continued)

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be \leq 25% RTP.

2.1.1.2 With the reactor steam dome pressure \geq 785 psig and core flow \geq 10% rated core flow:

MCPR shall be \geq 1.09 for two recirculation loop operation or \geq 1.12 for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be \leq 1325 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed:

2.2.1 Within 1 hour, notify the NRC Operations Center, in accordance with 10 CFR 50.72.

2.2.2 Within 2 hours:

2.2.2.1 Restore compliance with all SLs; and

2.2.2.2 Insert all insertable control rods.

2.2.3 Within 24 hours, notify the plant manager and the corporate executive responsible for overall plant nuclear safety.

(continued)

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in General Electric Standard Application for Reactor Fuel (GESTAR), NEDE-24011-P-A, ~~except that the M CPR Safety Limits for Operating Cycle 7 shall be determined as described in Illinois Power letters (to the NRC) U-602624 dated August 15, 1996; U-602651 dated October 28, 1996; and U-602662 dated November 15, 1996.~~
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.
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5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in General Electric Standard Application for Reactor Fuel (GESTAR), NEDE-24011-P-A.
 - c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
 - d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.
-

**Additional Information Regarding the Cycle Specific SLMCPR for
Clinton Power Station Unit 1 Cycle 8 (Proprietary to GNF)**



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.
- (2) The information sought to be withheld is contained in Attachment, Additional Information Regarding the Cycle Specific SLMCPR for Clinton Unit 1 Cycle 8, dated June 21, 2000.
- (3) 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).
- (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 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:

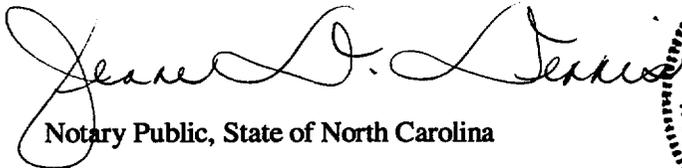
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at Wilmington, North Carolina, this 10th day of July, 2000

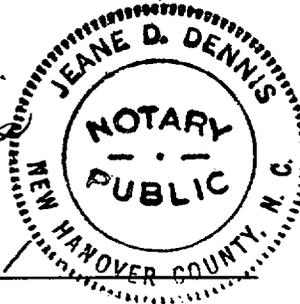


Glen A. Watford
Global Nuclear Fuel – Americas, LLC

Subscribed and sworn before me this 10th day of July, 2000



Notary Public, State of North Carolina



My Commission Expires 7-24-01



Global Nuclear Fuel

John A. Baumgartner
Fuel Project Manager

A Joint Venture of GE, Toshiba, & Hitachi
Global Nuclear Fuel – Americas, LLC
Castle Hayne Road, Wilmington, NC 28401
(910) 675-5821, Fax (910) 675-5684
John.Baumgartner@gnf.com

July 5, 2000
JAB:A00-030

cc: R. Chickering
J. C. Gearhart
R. D. McCord
J. M. Fawks

Mr. A. M. Olson
Fuel & Services Division
PECO NUCLEAR
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

SUBJECT: Clinton Cycle 8 Safety Limit MCPR

REFERENCE: 1. Attachment dated June 21, 2000, *Additional Information Regarding the Cycle Specific SLMCPR for Clinton Unit 1 Cycle 8.*

2. *Contract among Illinois Power Company, Soyland Power Cooperative, Inc. and General Electric Company for the Fuel Fabrication Service for the Initial Core and Reload Fuel Supply for Clinton Power Station Unit 1, May, 1992, as amended.*

Dear Andy:

Attached for your information and use is reference 1 regarding the Clinton Cycle 8 cycle specific SLMCPR. The Cycle 8 SLMCPR for dual loop operation has been calculated to be 1.09 and for single loop operation the limiting SLMCPR is 1.12.

Please note that reference 1 contains GNF Proprietary Information within the double brackets as indicated in the attachment and should be handled in accordance with the proprietary information provisions of the reference 2 Contract. Note that a GNF affidavit requesting the withholding of GNF proprietary information will follow in a separate transmittal.

Very truly yours,

J. A. Baumgartner
Fuel Project Manager