

2130-02-20219
August 1, 2002

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Oyster Creek Generating Station (Oyster Creek)
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Response To Request For Additional Information – Technical
Specification Change Request No. 291, Safety Limit Minimum
Critical Power Ratio (TAC NO. MB5505)

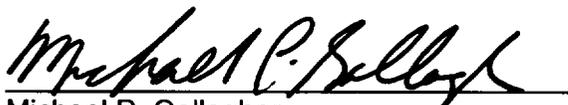
This letter provides additional information (Enclosure 1) in response to NRC's request for additional information (RAI) as discussed in a conference call on July 24, 2002 regarding Oyster Creek Technical Specification Request No. 291, submitted to NRC for review on June 26, 2002. Enclosure 1 contains information proprietary to Global Nuclear Fuel. Accordingly, it is requested that Enclosure 1 be withheld from public disclosure. An affidavit certifying the basis for this application for withholding as required by 10 CFR 2.790(b)(1) is also provided as Enclosure 3. Enclosure 2 provides a non-proprietary version of the information contained in Enclosure 1.

No new regulatory commitments are established by this submittal. If any additional information is needed, please contact David J. Distel (610) 765-5517.

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

Very truly yours,

8-1-02
Executed On


Michael P. Gallagher
Director, Licensing & Regulatory Affairs
Mid Atlantic Regional Operating Group

Enclosure: 1) Response to Request for Additional Information - Proprietary
2) Response to Request for Additional Information – Non-Proprietary
3) Global Nuclear Fuel Affidavit Certifying Request For Withholding From Public Disclosure

cc: H. J. Miller, USNRC Administrator, Region I
P. S. Tam, USNRC Senior Project Manager, Oyster Creek
R. J. Summers, USNRC Senior Resident Inspector, Oyster Creek
File No. 02047

APC/

ENCLOSURE 2

OYSTER CREEK

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
TECHNICAL SPECIFICATION CHANGE REQUEST NO. 291
SAFETY LIMIT MINIMUM CRITICAL POWER RATIO**

NON-PROPRIETARY

ENCLOSURE 2

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1. NRC Question

In Enclosure 1 of Section 5.0 Technical Analysis, the SLMCPR values are calculated to include cycle-specific parameters such as the actual core loading, conservative variations of projected control blade patterns, the actual bundle parameters, and the full cycle exposure range. However, Figures 1 and 2 in Enclosure 3 only provide Reference Core Loading pattern. Please describe under what conditions the difference between the actual core loading and the reference core loading may exist and a possible impact on the SLMCPR calculation and the proposed technical specification change if the difference does exist. Also, show that there is no difference between the actual and reference core loading for Cycles 18 and 19 MCPR calculations.

Response

The cycle-specific parameters are embodied in the reference loading pattern (RLP). A hard bottom burn is conservatively assumed to obtain the cycle exposure conditions that are analyzed to get the most limiting SLMCPR value for the cycle. The core-specific details that are relevant to the SLMCPR determination have been summarized in Table 1 of Enclosure 3 of AmerGen letter to the NRC dated June 26, 2002. Detailed bundle designs are provided periodically to the NRC through regular updates and supplements to the Topical Report, "GE Fuel Bundle Designs" (NEDE-31152P). GESTAR II as approved by the NRC (NEDE-24011-P-A-14) stipulates in Section 3.4.2 the acceptable ways that the as-loaded core (ALC) can deviate from the RLP that is used to perform the licensing calculations. These licensing calculations include the SLMCPR calculation. All of the deviations from the RLP allowed in GESTAR II are in the direction that would cause an increase in the conservatism of the licensing calculations. Any potential impact on the SLMCPR is negligible and in any case is in the direction to cause the calculated SLMCPR to be conservative. The Oyster Creek Cycle 18 ALC is currently operating and meets the requirements stipulated in Section 3.4.2 of GESTAR II. At this time, there is no indication that the Oyster Creek ALC core for Cycle 19 will be different from the Cycle 19 RLP that has been used for licensing. If the requirements given in Section 3.4.2 of GESTAR II are not met, then the licensing calculations must be redone as stipulated in Section 3.4.3 of GESTAR II.

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2. **NRC Question**

Provide details to justify that the calculated 1.11 Monte Carlo SLMCPR for Oyster Creek Cycle 19 is appropriate using the combination correlation of core bundle-by-bundle MCPR distribution and bundle pin-by-pin power/R-factor distribution, including real values used for parameters such as the constant "c" and the standard deviation " σ " for the GETAB method and uncertainties. Identify the cause of the 0.03 increase of SLMCPR value from that of the previous Cycle 18 operation.

Response

The two paragraphs at the bottom of page 1 of Enclosure 3 of AmerGen letter to the NRC dated June 26, 2002 explain that the SLMCPR has increased to 1.11 for four or five loop operation for Oyster Creek Cycle 19 mainly because the core MCPR distribution for Cycle 19 is much flatter than it was for Cycle 18. The bundle R-factor distributions have become flatter in Cycle 19 relative to Cycle 18 which is also in the direction to cause the calculated SLMCPR to increase. In the second paragraph in the section entitled "Summary" on page 2 of Enclosure 3 of AmerGen letter to the NRC dated June 26, 2002 it is stated: "The calculated 1.11 Monte Carlo SLMCPR for Oyster Creek Cycle 19 is consistent with what one would expect [[

]] the 1.11 SLMCPR value is appropriate. [[

]] agrees very well with the actual calculated Monte Carlo value of 1.109 from the NRC-approved process.

ENCLOSURE 3

OYSTER CREEK

**GLOBAL NUCLEAR FUEL AFFIDAVIT CERTIFYING REQUEST FOR
WITHHOLDING FROM PUBLIC DISCLOSURE**



Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

Affidavit

I, Glen A. Watford, state as follows:

- (1) I am Manager, Fuel Engineering Services, 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 Enclosure 1 to the letter, M. P. Gallagher (Exelon) to US NRC Document Control Desk, “Response To Request For Additional Information – Technical Specification Change Request No. 291, Safety Limit Minimum Critical Power Ratio (TAC NO. MB5505), Oyster Creek Generating Station (Oyster Creek) Facility Operating License No. DPR-16, NRC Docket No. 50-219,” August 1, 2002 (2130-02-20219).
- (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.

Affidavit

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.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed at Wilmington, North Carolina, this 1st day of August, 2002.



Glen A. Watford
Global Nuclear Fuel – Americas, LLC