P.O. Box 63
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Constellation Energy Group

Nine Mile Point
Nuclear Station

February 5, 2004
NMP2L 2110

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

SUBJECT: Nine Mile Point Unit 2
Docket No. 50-410
Facility Operating License No. NPF-69

License Amendment Request: Revised Safety Limit Minimum Critical Power Ratio in Technical Specification 2.1.1.2 – Response to Request for Additional Information (TAC No. MC1370)

Gentlemen:

Nine Mile Point Nuclear Station, LLC (NMPNS) hereby transmits supplemental information requested by the NRC in support of a previously submitted application for amendment to Nine Mile Point Unit 2 (NMP2) Operating License NPF-69. The initial application, dated November 20, 2003, proposed a revision to the Safety Limit Minimum Critical Power Ratio values in Technical Specification 2.1.1.2 to reflect the results of cycle-specific calculations performed for upcoming NMP2 Operating Cycle 10. The supplemental information provided in Attachment 1 to this letter responds to the request for additional information documented in the NRC's letter dated January 22, 2004. This information does not affect the No Significant Hazards Consideration analysis provided in NMPNS's November 20, 2003 letter.

The information contained in Attachment 1 was provided by Global Nuclear Fuel (GNF), and is considered by GNF to contain proprietary information exempt from disclosure pursuant to 10 CFR 2.790. Therefore, on behalf of GNF, NMPNS hereby makes application to withhold this document from public disclosure in accordance with 10 CFR 2.790(b)(1). An affidavit executed by GNF detailing the reasons for the request to withhold the proprietary information has been included as Attachment 2. A non-proprietary version of the information has been included with this letter as Attachment 3.

A P01

Pursuant to 10 CFR 50.91(b)(1), NMPNS has provided a copy of this supplemental information to the appropriate state representative.

Very truly yours,

Peter E. Katz

Peter E. Katz
Vice President Nine Mile Point

PEK/DEV/bjh

STATE OF NEW YORK :
: TO WIT:
COUNTY OF OSWEGO :

I, Peter E. Katz, being duly sworn, state that I am Vice President Nine Mile Point, and that I am duly authorized to execute and file this information on behalf of Nine Mile Point Nuclear Station, LLC. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other Nine Mile Point employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.

Peter E. Katz

Subscribed and sworn before me, a Notary Public in and for the State of New York and County of Oswego, this 5th day of February, 2004.

WITNESS my Hand and Notarial Seal:

SANDRA A. OSWALD
Notary Public, State of New York
No. 01OS6032276
Qualified In Oswego County
Commission Expires 10/25/05

Sandra A. Oswald
Notary Public

My Commission Expires:

2-5-04
Date

Attachments:

1. Response to Nine Mile Point Nuclear Station, Unit No. 2 - Request for Additional Information (RAI) - Amendment Application Re: Safety Limit Minimum Critical Power Ratio (SLMCPR) for Fuel Cycle 10 (TAC No. MC1370) (Proprietary Version)
2. Affidavit by Global Nuclear Fuel for Withholding Proprietary Information
3. Response to Nine Mile Point Nuclear Station, Unit No. 2 - Request for Additional Information (RAI) - Amendment Application Re: Safety Limit Minimum Critical Power Ratio (SLMCPR) for Fuel Cycle 10 (TAC No. MC1370) (Non-Proprietary Version)

cc: Mr. H. J. Miller, NRC Regional Administrator, Region I
Mr. G. K. Hunegs, NRC Senior Resident Inspector
Mr. P. S. Tam, Senior Project Manager, NRR (2 copies)
Mr. J. P. Spath, NYSERDA

ATTACHMENT 2

Affidavit by Global Nuclear Fuel for Withholding Proprietary Information

Affidavit

I, Margaret E. Harding, 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 the attachment, **"Response to Nine Mile Point Nuclear Station, Unit No. 2 - Request For Additional Information - Amendment Application Re: Safety Limit Minimum Critical Power Ratio (SLMCPR) For Fuel Cycle 10 (TAC NO. MC1370),"** January 29, 2004. GNF proprietary information is indicated by enclosing it in double brackets. In each case, 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, 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) To address the 10 CFR 2.790 (b) (4), 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.

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 29th day of January, 2004.

Margaret E. Harding
Global Nuclear Fuel – Americas, LLC

ATTACHMENT 3

RESPONSE TO NINE MILE POINT NUCLEAR STATION, UNIT NO. 2 REQUEST FOR ADDITIONAL INFORMATION (RAI) - AMENDMENT APPLICATION RE: SAFETY LIMIT MINIMUM CRITICAL POWER RATIO (SLMCPR) FOR FUEL CYCLE 10 (TAC NO. MC1370)

Reference: NRC Letter dated January 22, 2004

Non-Proprietary Version

RAI:

Based on Table 1 results in Attachment 4 of the application for amendment, please provide the rationale for an increase of the calculated SLMCPR value for Cycle 10 operation while its product of parameters for the core bundle-by-bundle MCPR distribution and for the bundle pin-by-pin power/R-factor distribution is lower than that for Cycle 9 operation.

Response:

As noted in the question, the product of parameters for the core bundle-by-bundle MCPR distribution and for the bundle pin-by-pin power/R-factor distribution is lower for Cycle 10 than for Cycle 9. These factors provide for an estimation of the SLMCPR. Based on these approximations, it appears that the Cycle 10 SLMCPR could be lower than the Cycle 9 value. These estimations, however, consider only the core and bundle peaking effects from one cycle to the next. There are other contributors that are not captured in these estimates. One factor, discussed in the Summary section and shown in Table 2 of Attachment 4 of the license amendment request (Nine Mile Point Nuclear Station, LLC letter dated November 20, 2003), is the top peaked power shape penalty at end of cycle (EOC) associated with the GE14 GEXL correlation. The penalty is 0.016 for Cycle 10. There was no GE14 fuel in the Cycle 9 core, so there was no top peaked power shape penalty. Another factor is a recent increase in the R-factor uncertainty used in the SLMCPR calculation, from [[ ]] to [[ ]]. The R-factor uncertainty has been increased to address larger uncertainty associated with channel bow and the resultant effects on MCPR. This change increases the SLMCPR approximately [[ ]]. Finally, the core and bundle estimators are necessarily based on an assumed MCPR and pin power distribution. Thus, they do not capture effects of the actual power distribution of a specific core and bundle design. The approved Monte Carlo methodology used for calculating the SLMCPR does capture the actual power distributions of the design.

The three factors discussed above result in an increase in the Cycle 10 SLMCPR relative to the Cycle 9 SLMCPR, offsetting the more peaked bundle and core distributions reflected by the estimating parameters.