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Nuclear

10 CFR 50.90

February 15, 2002

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

Limerick Generating Station, Unit 1
Facility Operating License No. NPF-39
NRC Docket No. 50-352

Subject: License Amendment Request 01-01092
Safety Limit Minimum Critical Power Ratio (SLMCPR) Change

Reference: 1) Letter from M. P. Gallagher (Exelon Generation Company, LLC) to U. S. Nuclear
Regulatory Commission, dated December 21, 2001

Dear Sir/Madam:

In the Reference 1 letter, Exelon Generation Company, LLC, submitted License Amendment Request 01-01092 requesting a change to the Limerick Generating Station (LGS), Unit 1 Facility Operating License. This proposed change will revise Technical Specifications (TS) 2.1. This Section will be revised to incorporate revised Safety Limit Minimum Critical Power Ratios (SLMCPRs) due to the cycle specific analysis performed by Global Nuclear Fuel for LGS, Unit 1, Cycle 10, which will include the use of the GE-14 fuel product line. In response to a telephone conversation on February 12, 2002, attached is additional information. This information is being submitted under unsworn declaration.

Attachment 1 to this letter contains information proprietary to Global Nuclear Fuel. Global Nuclear Fuel requests that the document be withheld from public disclosure in accordance with 10 CFR 2.790(a)(4). An affidavit supporting this request is also contained in Attachment 1. Attachment 2 contains a non-proprietary version of the Global Nuclear Fuel document.

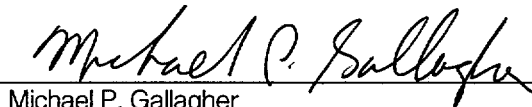
If you have any questions, please do not hesitate to contact us.

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

Respectfully,

Executed on

02-15-02



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

Attachments: 1- Affidavit and Proprietary Global Nuclear Fuels Letter
2- Non-proprietary Version of Global Nuclear Fuels Letter

cc: H. J. Miller, Administrator, Region I, USNRC
A. L. Burritt, USNRC Senior Resident Inspector, LGS
C. Gratton, Senior Project Manager, USNRC
R. R. Janati, Commonwealth of Pennsylvania

AP01

ATTACHMENT 1

LIMERICK GENERATING STATION
UNIT 1

DOCKET NO. 50-352

LICENSE NO. NPF-39

LICENSE AMENDMENT REQUEST 01-01092

Affidavit and Proprietary Global Nuclear Fuels Letter



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, 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, “Request/Responses for Additional Information to Support Tech Spec SLMCPR, Limerick 1, Cycle 10,” February 14, 2002.
- (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:

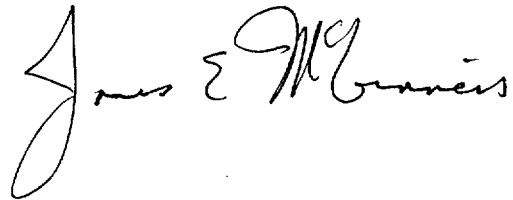
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at Wilmington, North Carolina, this 14th day of February, 20 02



Glen A. Watford
Global Nuclear Fuel – Americas, LLC

Subscribed and sworn before me this 14 day of FEBRUARY, 20 02



Notary Public, State of North Carolina

JAMES E. MCGINNESS
Notary Public, State of North Carolina
New Hanover County

My Commission Expires _____

My Commision Expires 1/23/2006

ATTACHMENT 2

LIMERICK GENERATING STATION
UNIT 1

DOCKET NO. 50-352

LICENSE NO. NPF-39

LICENSE AMENDMENT REQUEST 01-01092

Non-Proprietary Global Nuclear Fuels Letter

REQUEST FOR ADDITIONAL INFORMATION
(responses have been imbedded)
RELATING TO PROPOSED AMENDMENT TO LICENSE NO. NPF-39
EXELON GENERATION COMPANY, LLC
LIMERICK GENERATING STATION, UNIT 1
DOCKET NO. 50-352

The Nuclear Regulatory Commission (NRC) staff has reviewed the December 21, 2001, Exelon submittal regarding changes to the Limerick Generating Station Unit 1 Safety Limit Minimum Critical Power Ratios (SLMCPRs) and has the following questions and comments concerning Attachment 4 of the submittal:

1. Figures 1 and 2 for Cycle 9 and Cycle 10 Reference Core Loading Pattern, respectively, should be updated to include Limerick cycle-specific fuel type, quantity, and when they are loaded in the core.

RESPONSE:

Figures 1 and 2 have been updated as requested. The updated figures are attached following the text of the last response.

2. The NRC staff found discrepancies in data bases while conducting an audit of General Electric's GEXL14 correlation analysis. Provide a justification why the overall GEXL14 uncertainty for Limerick Unit 1 is still valid. Discuss the impact on the SLMCPR calculation due to these discrepancies.

RESPONSE:

In a meeting with the NRC staff on February 11, 2002 [[

]] To evaluate the impact on SLMCPR, the process described in Reference 1 was applied to Limerick Unit 1, Cycle 10. The results are shown in Table 1. [[

]] there is sufficient conservatism associated with the reduced power distribution uncertainties that the SLO and DLO Tech Spec SLMCPRs do not need to increase.

TABLE 1					
Net Adjustments to SLMCPR [[to account for Top-peaked Power Shapes]]		Dual Loop Ops.			Single Loop Ops.
		BOC	MOC	EOC	EOC
	Submitted SLMCPR	1.10	1.10	1.10	1.11
Step	Calculated M/C SLMCPR	[[]]
1	Margin to Submitted SLMCPR	[[]]
2,3	[[]]
4	Credit for Reduced Uncertainties	[[]]
	[[]]
	Net unrounded change	[[]]
	Adjusted SLMCPR with rounding	1.08	1.07	1.09	1.10
	Revised SLMCPR for Tech Specs	DLO	1.10		SLO 1.11
Step 5 credit applies only for OLMCPR and is not relevant for Tech Specs under review.					
[[]]					

Reference 1: G.A. Watford (GNF) letter J.E. Donohue (NRC), Final Presentation Material for GEXL Presentation - February 11, 2002; FLN-2002-004; February, 12, 2002.

3. SLMCPR value for two recirculation loop operation given in Table 1 of Attachment 4 decreased by 0.02, even though the same approach was used for both the power distribution uncertainty and the non-power distribution uncertainty for Cycles 9 and 10. Similarly, the SLMCPR value for single loop recirculation loop operation decreased by 0.03. Please discuss in detail the reasons for these decreases.

RESPONSE:

The decreases in calculated values are consistent with the more peaked MCPR and bundle R-factor distributions for cycle 10 compared to cycle 9. It is not unusual to see more variation in the SLO value than in the DLO. The reductions in the DLO and SLO values are actually more similar than they appear because the Tech Spec SLO value for cycle 9 was more conservative than the cycle-specific evaluation required. Consider the following changes in the calculated values. [[

]] In both cases, the amounts are consistent with expectations. [[

]]

The results from Table 1 in response to question 2 reveal that requested changes in the Tech Spec SLMCPR values for DLO and SLO are appropriate and do not need to be amended.

Figure 1 Reference Core Loading Pattern – Cycle 9 [[

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Figure 2 Reference Core Loading Pattern – Cycle 10 [[

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