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March 23, 2021

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

Limerick Generating Station, Unit 2
Renewed Facility Operating License No. NPF-85
NRC Docket No. 50-353

Subject: Limerick Generating Station Introduction of High Burnup Lead Use Assemblies (HBLUAs)

Reference: 1) NEDE-24011-P-A-31-US, "General Electric Standard Application for Reactor Fuel (GESTAR II)," November 2020

In accordance with NEDE-24011-P-A-31-US, "General Electric Standard Application for Reactor Fuel (GESTAR II)," November 2020 (Reference 1), Exelon Generation Company, LLC (EGC) is notifying the NRC of the planned use of Global Nuclear Fuel - Americas, LLC (GNF) High Burnup Lead Use Assemblies (HBLUAs). Information concerning the use of these assemblies is contained in Appendix B ("Lead Assembly Program") of Reference 1. As described in the attached report prepared by GNF, HBLUAs are licensed fuel designs that are operated beyond the current GNF burnup limits. In this HBLUA program, eight standard GNF2 assemblies with NSF channels that have completed two cycles will operate in the third cycle in Limerick Generating Station, Unit 2 Cycle 17 (Spring 2021 to Spring 2023) in such a way that they will exceed the current GNF burnup limits in the last six months of operation. After completing Cycle 17, the plan is to discharge four of the HBLUAs and reinsert four in Cycle 18 (Spring 2023 to Spring 2025) for a fourth cycle of operation.

The attached report provides a description of the HBLUA program at Limerick Generating Station, Unit 2. This communication includes the following information:

- A description of the lead assembly program.
- Estimated duration of the program.
- Inspection plans with a basis for those plans.
- Assurance that the lead assemblies meet all GESTAR II licensing requirements for HBLUAs.

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Attachment 1 (Global Nuclear Fuel Report 006N3997P, Revision 1, "High Burnup Lead Use Assembly (HBLUA) Information Report for Limerick 2," February 2021) contains information proprietary to GNF. GNF requests that this document be withheld from public disclosure in accordance with 10 CFR 2.390(b)(4). An affidavit supporting this request is contained in Attachment 2. A non-proprietary version is provided in Attachment 3.

There are no regulatory commitments contained in this letter.

Should you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.

Respectively,



David P. Helker
Sr. Manager, Licensing and Regulatory Affairs
Exelon Generation Company, LLC

- Attachments: 1) Proprietary Global Nuclear Fuel Report 006N3997P, Revision 1, "High Burnup Lead Use Assembly (HBLUA) Information Report for Limerick 2," February 2021
2) Affidavit
3) Non-Proprietary Global Nuclear Fuel Report 006N3997NP, Revision 1, "High Burnup Lead Use Assembly (HBLUA) Information Report for Limerick 2," February 2021

cc: USNRC Region I, Regional Administrator
USNRC Senior Resident Inspector, LGS
USNRC Project Manager, LGS
W. DeHass, Pennsylvania Bureau of Radiation Protection - (Attachments 2 and 3)

ATTACHMENT 2

Affidavit

Global Nuclear Fuel – Americas AFFIDAVIT

I, **Brian R. Moore**, state as follows:

- (1) I am General Manager, Core & Fuel Engineering, Global Nuclear Fuel – Americas, LLC (“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 GNF report, 006N3997P, Revision 1, *High Burnup Lead Use Assembly (HBLUA) Information Report for Limerick 2*, February 2021. The proprietary information in 006N3997P, Revision 1, *High Burnup Lead Use Assembly (HBLUA) Information Report for Limerick 2*, February 2021, is identified by a dotted underline within double square brackets. [[This sentence is an example.^{3}]] GNF proprietary information in figures and large objects is identified with double square brackets before and after the object. In all cases, 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 2.390(a)(4) for “trade secrets” (Exemption 4). The material for which exemption from disclosure is here sought 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 aspects of past, present, or future GNF-A customer-funded development plans and programs, resulting in potential products to GNF-A;
 - d. 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 10 CFR 2.390 (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. 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. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.
- (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.
- (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 this methodology, along with the testing, development and approval was achieved at a significant cost to GNF-A.

The development of the fuel design and licensing methodology along with the interpretation and application of the analytical results is derived from an extensive experience database that constitutes a major GNF-A asset.

- (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 information 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.

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 is true and correct.

Executed on this 23rd day of February 2021.

A handwritten signature in black ink that reads "Brian R. Moore". The signature is written in a cursive style with a long horizontal stroke at the end.

Brian R. Moore
General Manager, Core & Fuel Engineering
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