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RS-21-064

10 CFR 50.90

June 30, 2021

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

LaSalle County Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: License Amendment Request Regarding New Fuel Storage Vault and Spent Fuel Storage Pool Criticality Methodologies, with Proposed Changes to Technical Specifications Sections 4.3.1 and 5.6.5

Reference: Public Pre-submittal Meeting Between Exelon Generation Company, LLC and the U.S. Nuclear Regulatory Commission, "Proposed License Amendment Request Associated with the Transition to a New Fuel Type and Vendor at LaSalle Station, Units 1 & 2 and Quad Cities Nuclear Power Station, Units 1 & 2," May 27, 2021 (ADAMS Accession Nos. ML21133A167 & ML21141A010)

In accordance with 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (EGC) requests an amendment to Renewed Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS), Units 1 and 2, respectively. Specifically, EGC is utilizing a new criticality safety analysis (CSA) methodology for performing the criticality safety evaluation for legacy fuel types in addition to the GNF3 reload fuel in the spent fuel pool (SFP). EGC is also proposing a change to the new fuel vault (NFV) CSA to utilize the GESTAR II methodology for validating the NFV criticality safety for GNF3 fuel in the General Electric (GE) designed NFV racks. In addition, EGC is proposing to change both LSCS Technical Specifications (TS) 4.3.1, "Criticality," and 5.6.5, "Core Operating Limits Report (COLR)," to reflect conditions present upon license amendment approval.

EGC participated in a pre-submittal meeting with the NRC Staff on May 27, 2021, regarding the planned transition from the Global Nuclear Fuels - America, LLC (GNF) GNF2 fuel design to GNF's improved GNF3 fuel design at LSCS. Both LSCS Units are currently operating with full cores of GNF2 and GNF3 fuel (1 reload GNF3 in operation in LSCS Unit 2). During this meeting, EGC's plans to submit this license amendment request supporting both the use of a new CSA methodology for performing the criticality safety evaluation in the spent fuel pools and transitioning to the GNF GESTAR II coverage as the CSA basis in the NFV were discussed.

**Attachment 3 contains Proprietary Information.
When separated from Attachment 3, this document is decontrolled.**

The following attachments are included in support of this proposed license amendment:

Attachment 1: Evaluation of Proposed Changes

Attachment 2: Proposed Technical Specifications Markups

Attachment 3: NEDC-33931P, "LaSalle County Station Fuel Storage Criticality Safety Analysis,"
Revision 0, dated April 2021 (Proprietary)

Attachment 4: NEDO-33931, "LaSalle County Station Fuel Storage Criticality Safety Analysis,"
Revision 0, dated April 2021 (Non-Proprietary)

Attachment 5: NEI 12-16 Criticality Analysis Checklist

Attachment 3 contains information proprietary to GNF, Curtiss-Wright Flow Control and Services Corporation (Curtiss-Wright), and Holtec International, Inc. (Holtec). As a result, this document is supported by signed affidavits from the owners of the information (see Attachment 3). Each affidavit sets forth the basis on which the corporation's information may be withheld from public disclosure by the NRC and addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR 2.390, "Public inspections, exemptions, requests for withholding." Accordingly, EGC requests that the information, which is proprietary to GNF, Curtiss-Wright, and Holtec be withheld from public disclosure. A redacted non-proprietary version of Attachment 3 is provided in Attachment 4.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using the criteria in 10 CFR 50.92(c) and it has been determined that the proposed change involves no significant hazards consideration.

The proposed changes have been reviewed by the LSCS Plant Operations Review Committee in accordance with the requirements of the EGC Quality Assurance Program.

EGC requests approval of the proposed change by July 29, 2022. Once approved, the amendment will be implemented within 30 days.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), a copy of this letter and its attachments, is being provided to the designated State Officials.

There are no regulatory commitments contained in this letter. Should you have any questions concerning this letter, please contact Mr. Jason C. Taken at (630) 657-3660.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 30th day of June 2021.

Respectfully,

A handwritten signature in black ink, appearing to read "Patrick R. Simpson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Patrick Simpson
Sr. Manager, Licensing
Exelon Generation Company, LLC

Attachments:

1. Evaluation of Proposed Changes
2. Mark-up of Technical Specifications Pages
3. NEDC-33931P, "LaSalle County Station Fuel Storage Criticality Safety Analysis," Revision 0, dated April 2021 (Proprietary Version)
4. NEDO-33931, "LaSalle County Station Fuel Storage Criticality Safety Analysis," Revision 0, dated April 2021 (Non-Proprietary Version)
5. NEI 12-16 Criticality Analysis Checklist

cc: U.S. NRC Region III, Regional Administrator
U.S. NRC Senior Resident Inspector, LaSalle County Station
Illinois Emergency Management Agency – Division of Nuclear Safety