

RS-11-008

January 11, 2011

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

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

Subject: Additional Information Supporting License Amendment Request Regarding the Use of Neutron Absorbing Inserts in Unit 2 Spent Fuel Pool Storage Racks

- References:
1. Letter from P. R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "License Amendment Regarding the Use of Neutron Absorbing Inserts in Unit 2 Spent Fuel Pool Storage Racks," dated October 5, 2009
 2. Letter from P. R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Additional Information Supporting License Amendment Request Regarding the Use of Neutron Absorbing Inserts in Unit 2 Spent Fuel Pool Storage Racks," dated November 23, 2010

In Reference 1, Exelon Generation Company, LLC (EGC) requested an amendment to Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS), Units 1 and 2, respectively. The proposed change revises Technical Specifications (TS) Section 4.3.1, "Criticality," to address a non-conservative TS. Specifically, the proposed change addresses the BORAFLEX™ degradation issue in the Unit 2 spent fuel storage racks by revising TS Section 4.3.1 to allow the use of NETCO-SNAP-IN® rack inserts in Unit 2 spent fuel storage rack cells as a replacement for the neutron absorbing properties of the existing BORAFLEX™ panels.

In Reference 2, EGC provided a revised markup of the proposed Technical Specifications (TS) page that addressed information requested by the NRC. EGC recently identified an editorial change that is needed for proposed TS 4.3.1.1.a. Specifically, the proposed text to be inserted should end with a period. A revised markup of the proposed TS page is attached.

EGC has reviewed the information supporting a finding of no significant hazards consideration, and the environmental consideration, that were previously provided to the NRC in Attachment 1 of Reference 1. The additional information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards

consideration. In addition, the additional information provided in this submittal does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

There are no regulatory commitments contained in this letter. Should you have any questions concerning this letter, please contact Mr. Kenneth M. Nicely at (630) 657-2803.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 11th day of January 2011.

Respectfully,


Patrick R. Simpson
Manager – Licensing

Attachment:

Revised Markup of Proposed Technical Specifications Page

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

ATTACHMENT
Revised Markup of Proposed Technical Specifications Page

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18

REVISED TECHNICAL SPECIFICATIONS PAGE

4.0-2

4.0 DESIGN FEATURES (continued)

4.3 Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. $k_{\text{eff}} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in ~~Section 9.1.2 of the UFSAR; and~~
- b. A nominal 6.26 inch center to center distance between fuel assemblies placed in the storage racks.

4.3.2 Drainage

The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 819 ft.

4.3.3 Capacity

The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 3986 fuel assemblies for Unit 1 and 4078 fuel assemblies for Unit 2.

either: (1) Section 9.1.2 of the UFSAR, or (2) AREVA NP Inc. Report No. ANP-2843(P), "LaSalle Unit 2 Nuclear Power Station Spent Fuel Storage Pool Criticality Safety Analysis with Neutron Absorbing Inserts and Without Boraflex," Revision 1, dated August 2009, for the Unit 2 spent fuel storage racks with rack inserts.

- c. For Unit 2 only, a neutron absorbing rack insert shall be installed in spent fuel storage rack cells prior to loading fuel assemblies in cells that cannot otherwise maintain the requirements of 4.3.1.1.a. The neutron absorbing rack inserts shall have a minimum certified ^{10}B areal density greater than or equal to 0.0086 grams $^{10}\text{B}/\text{cm}^2$.
- d. The combination of U-235 enrichment and gadolinia loading shall be limited to ensure fuel assemblies have a maximum k-infinity of 0.9185 for all lattices in the top of the assembly, a maximum k-infinity of 0.8869 for all lattices in the intermediate portion of the assembly, and a maximum k-infinity of 0.8843 for all lattices in the bottom of the assembly as determined at 4°C in the normal spent fuel pool in-rack configuration. The bottom, intermediate, and top zones are between 0"-96", 96"-126", and greater than 126" above the bottom of the active fuel.
- e. For Unit 2 only, at the interface between a non-insert rack module and an insert rack module of the spent fuel pool, the placement of inserts will be expanded one row and one column into the non-insert rack module as necessary to completely surround all assemblies in the insert rack module with four wings of an insert.