



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 18, 2016

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 – ACCEPTANCE REVIEW CONCERNING CRITICALITY METHODOLOGY FOR FUEL CHANNEL BOW/BULGE (CAC NOS. MF7160 AND MF7161)(RS-15-326)

Dear Mr. Hanson:

By letter dated December 14, 2015 (Agencywide Document Access and Management System (ADAMS) Accession No. ML15348A396), Exelon Generation Company, LLC (the licensee) submitted a license amendment request for Quad Cities Nuclear Power Station, Units 1 and 2. The proposed amendment revises the design bases in the Updated Final Safety Analysis Report to reflect the use of a new criticality safety assessment fuel channel bow/bulge methodology to support the performance of criticality safety evaluation for ATRIUM-10XM fuel design in the spent fuel pool. The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that it does provide technical information in sufficient detail to enable the NRC staff to complete its detailed technical review and make an independent assessment regarding the acceptability of the proposed amendment in terms of regulatory requirements and the protection of public health and safety and the environment. Given the lesser scope and depth of the acceptance review as compared to the detailed technical review, there may be instances in which issues that impact the NRC staff's ability to complete the detailed technical review are identified despite completion of an adequate acceptance review. You will be advised of any further information needed to support the NRC staff's detailed technical review by separate correspondence.

B. Hanson

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If you have any questions, please contact Ms. Eva Brown, at (301) 415-2315.

Sincerely,

**/RA/**

Eva A. Brown, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-254 and  
50-265

cc: Distribution via Listserv

B. Hanson

- 2 -

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Sincerely,

**/RA/**

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50-265

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**ADAMS Accession No. ML16048A455**

OFFICE	LPL3-2/PM	LPL3-2/LA	LPL3-2/BC (A)
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DATE	02/18/16	02/18/16	02/18/16

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