



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

February 5, 2015

Mr. Glenn Kaegi  
Director, Licensing and Regulatory Affairs  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 1 AND 2 AND QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2, REQUEST FOR ADDITIONAL INFORMATION RELATE TO LICENSE AMENDMENT REQUEST TECHNICAL SPECIFICATION CHANGES, TO ADD AN NRC APPROVED TOPICAL REPORT REFERENCE (TAC NOS. MF3359 AND MF3362)

Dear Mr. Kaegi:

By application to the U.S. Nuclear Regulatory Commission (NRC) dated December 19, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13354C045), Exelon Generation Company, LLC (EGC), the licensee for the Dresden Nuclear Power Station (DNPS), Units 2 and 3, and Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2, submitted a license amendment request (LAR) for review and approval of a revision to the DNPS and QCNPS Technical Specifications (TS) Section 5.6.5 to add an NRC-approved topical report reference to the list of analytical methods that are used to determine the core operating limits. EGC states that the proposed change adds a reference to Westinghouse topical report WCAP-16865-P-A, "Westinghouse BWR ECCS Evaluation Model Updates: Supplement 4 to Code Description, Qualification and Application."

We revised our RAI draft based on the telephone call with Exelon on November 25, 2014 (ADAMS Accession No. ML14344A325). During that call it was agreed that you would provide a response by one month from the date of the formal letter.

The NRC staff considers that timely responses help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me to discuss any need for clarification

G. Kaegi

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If you have any questions related to the RAI or cannot meet the one month response date, please call me at 301-415-2020.

Sincerely,

A handwritten signature in black ink that reads "Brenda Mozafari". The signature is written in a cursive style with a large, prominent 'B' and 'M'.

Brenda Mozafari, Senior Project Manager  
Plant Licensing III-2 and  
Planning and Analysis Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237, 50-249, 50-254, and 50-265

Enclosure:  
Request for Additional Information (proprietary)

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REQUEST FOR ADDITIONAL INFORMATION RELATED TO  
LICENSE AMENDMENT REQUEST FOR TECHNICAL SPECIFICATION CHANGES  
TO ADD AN NRC APPROVED TOPICAL REPORT REFERENCE  
EXELON GENERATION COMPANY, LLC  
DRESDEN NUCLEAR POWER STATION, UNITS 1 AND 2 AND QUAD CITIES NUCLEAR  
POWER STATION, UNITS 1 AND 2  
DOCKET NO. 50-237, 50-249, 50-254, AND 50-265

By letter to the U.S. Nuclear Regulatory Commission (NRC) dated December 19, 2013, Exelon Generation Company, LLC (EGC), the licensee for the Dresden Nuclear Power Station (DNPS), Units 2 and 3, and Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2, submitted a license amendment request (LAR) for review and approval of a revision to the DNPS and QCNPS Technical Specifications (TS) Section 5.6.5 to add an NRC-approved topical report reference to the list of analytical methods that are used to determine the core operating limits. EGC states that the proposed change adds a reference to Westinghouse topical report WCAP-16865-P-A, "Westinghouse BWR ECCS [boiling-water reactor emergency core cooling system] Evaluation Model Updates: Supplement 4 to Code Description, Qualification and Application." The NRC staff has reviewed the request submitted by the licensee and determined that the following additional information is needed.

RAI-01 In the report (NF-BEX-13-143-P) the licensee states (or implies) that the report is specific to QC [Quad Cities] in several places, such as in the 2<sup>nd</sup> paragraph on page 12, the 1<sup>st</sup> sentence of the 2<sup>nd</sup> paragraph on page 20, the 4<sup>th</sup> bullet on page 51, etc. However, the LAR requests an amendment to Renewed Facility Operating Licenses for not only the QC units but also the Dresden units as well. Justify this report (NF-BEX-13-143-P), a sample application of the LOCA [loss-of-coolant accident] methodology (WCAP-16865-P-A, Revision 1) for QC, can also be applied to the Dresden units. Provide additional information to confirm that the Quad Cities and Dresden Plants are "similar". Confirm that the application of the methodology applied for Quad Cities will be applied for Dresden "similarly" when applied in the future.

RAI-2 [[ ]]

RAI-03 The equation given on page 34 implies that the pressure loss (or differential pressures) caused by leakage is the same as the pressure loss due to either LPCS or LPCI.

(a) Explain the upstream and downstream locations of the two pressure losses.

(b) What is the basis for the assumption that the two pressure losses are the same?

RAI-04 In Section B.1.1 on page 51 EGC discusses ASD (Adjustable Speed Drive). It is stated, "Reference 3-12 concluded that the predicted coastdown time (PCT) constant for the QC ASD modification of > 5.1 seconds is reasonable for applications to ECCS performance analysis. Reference 3-12 and the current AOR [analysis of record] both use a modeled coastdown time constant of 4.45 seconds which therefore remains conservative to the predicted time constant with the ASD modification." Explain why the coast down time constant of 4.45 seconds is conservative compared to the reasonable time of > 5.1 seconds.

RAI-05 [[ ]]

RAI-06 [[ ]]

RAI-07 [[ ]]

RAI-08 [[ ]]

G. Kaegi

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If you have any questions related to the RAI or cannot meet the one month response date, please call me at 301-415-2020.

Sincerely,

/RA/

Brenda Mozafari, Senior Project Manager  
Plant Licensing III-2 and  
Planning and Analysis Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237, 50-249, 50-254, and 50-265

Enclosure:  
Request for Additional Information (proprietary)

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**Accession Number: ML14346A443**

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Date	02/04/15	02/05/15	02/04/15	02/5 /15	02/ 5/15

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