



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

August 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: DRESDEN NUCLEAR POWER STATION, UNIT NOS. 2 AND 3 –  
SUPPLEMENTAL INFORMATION NEEDED FOR ACCEPTANCE OF  
REQUESTED LICENSING ACTION RE: INSERVICE INSPECTION INTERVAL  
PROPOSED ALTERNATIVE (I5R-08) (CAC NOS. MF8090 AND MF8091)

Dear Mr. Hanson:

By letter dated June 30, 2016 (RS-16-130)(Agencywide Documents Access and Management System (ADAMS) Accession No. ML16187A295), Exelon Generation Company, LLC (EGC, the licensee), submitted a proposed alternative<sup>1</sup> for Dresden Nuclear Power Station (DNPS), Unit Nos. 2 and 3 that would allow DNPS to use an alternative to certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PV Code), Section XI, for the fifth 10-year inservice inspection (ISI) interval which began on January 20, 2013, and is currently scheduled to end on January 19, 2023. Included in the submittal, EGC is requesting NRC approval for the remaining term of the DNPS, Unit Nos. 2 and 3 renewed facility operating licenses, currently expiring on December 22, 2029 and January 12, 2031, respectively. 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 submittal has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z)(1), EGC requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.

The NRC staff has reviewed the EGC submittal and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed relief request in terms of regulatory requirements and the protection of public health and safety and the environment.

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<sup>1</sup> ASME Code Case N-702, "Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1," and Boiling Water Reactor Vessel and Internals Project (BWRVIP)-241, "Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii."

B. Hanson

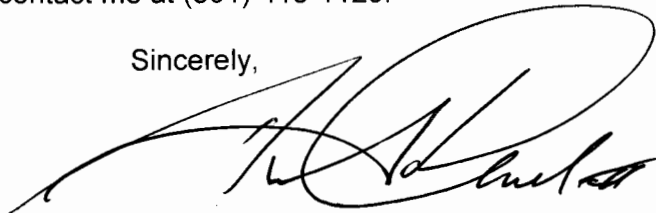
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For the NRC staff to accept the submittal and to proceed with its technical review, the staff requests that EGC provide additional information to address the enclosure, by September 6, 2016. If the information responsive to the NRC staff's request is not received by the above date, the submittal will not be accepted for review pursuant to 10 CFR 2.101, and the NRC staff will cease all review activities associated with the submittal. Pending the subsequent acceptance for review, EGC will be advised of any further information needed to support the staffs' technical review by separate correspondence.

The information requested and associated time frame were discussed with Mr. Mitch Mathews and other members of your staff during a NRC/EGC conference call held on August 17, 2016.

If you have any questions, please contact me at (301) 415-1129.

Sincerely,

A handwritten signature in black ink, appearing to read 'Russell S. Haskell II', with a large, sweeping loop at the end.

Russell S. Haskell II, Project Manager  
Plant Licensing Branch 3-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237 and 50-249

Enclosure:  
As stated

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SUPPLEMENTAL INFORMATION NEEDED

RE: PROPOSED ALTERNATIVE FOR INSERVICE INSPECTION (I5R-08)

EXELON GENERATION COMPANY, LLC

DRESDEN NUCLEAR POWER STATION, UNIT NOS. 2 AND 3

DOCKET NOS. 50-237 AND 50-249

By letter dated June 30, 2016 (RS-16-130)(Agencywide Documents Access and Management System (ADAMS) Accession No. ML16187A295), Exelon Generation Company, LLC (EGC, the licensee), submitted a proposed alternative<sup>2</sup> that would allow Dresden Nuclear Power Station (DNPS), Unit Nos. 2 and 3 to use an alternative to certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PV Code), Section XI, requirements for the fifth 10-year inservice inspection (ISI) interval which began on January 20, 2013, and is currently scheduled to end on January 19, 2023. Included in the submittal, EGC is requesting NRC approval for the remaining term of the DNPS, Unit Nos. 2 and 3 renewed facility operating licenses, currently expiring on December 22, 2029 and January 12, 2031, respectively.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the proposed alternative (submittal) and has concluded that an EGC response is necessary to the information delineated below. This will enable the staff to make an independent assessment regarding the acceptability of the proposed alternative in terms of regulatory requirements and the protection of public health and safety and the environment.

Discussion:

The NRC staff is requesting EGC to clarify information in the submittal requesting what appears to be an extension of the Unit 2 ISI interval for approximately an additional 6 years and the Unit 3 ISI interval for approximately an additional 8 years. Following a clarification call with EGC on August 17, 2016, EGC stated the fifth 10-year ISI interval remains at 10 years (ending on January 20, 2023) and would continue to require examinations on at least one of each nozzle type within the interval, in accordance with Code Case N-702.

The EGC submittal states the proposed alternative is regarding the implementation of ASME Code Case N-702. NRC previously provided safety evaluations for topical reports BWRVIP-108 "BWR Vessel and Internals Project, Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii" and BWRVIP-241, "Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend "Radii," which provide the bases for implementation of Code Case N-702.

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<sup>2</sup> ASME Code Case N-702, "Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1," and Boiling Water Reactor Vessel and Internals Project (BWRVIP)-241, Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend "Radii."

Enclosure

Following the NRC staff's evaluation of the Probabilistic Fracture Mechanics (PFM) analysis in the BWRVIP-108 and BWRVIP-241 technical reports, the staff determined that 10-year (120 month) ISI examination frequencies are justified for the implementation of Code Case N-702. This periodicity is in alignment with industry recommendations and is endorsed by the NRC. Additionally, 10-year ISI intervals support the basis for the NRC staff's conclusion that the extent and frequency for the examination of reactor pressure vessel nozzle-to-vessel shell welds and nozzle inner blend radii should be every 10 years, which is consistent with NRC safety goals.

Requires EGC Response:

Section 5 (pg. 2 of 8) of the submittal (RS-16-2016), dated June 30, 2016, states, in part:

*“...including at least one nozzle from each system and nominal pipe size, during each **inspection interval** [emphasis added] in accordance with ASME code Case N-702...”*:

- 1.) Please clarify what is meant by “inspection interval,” as annotated in the submittal. Will the Code Case N-702 examination requirements at DNPS for the current fifth 10-year ISI interval (ending on January 20, 2023) and the subsequent sixth 10-year ISI interval (covering the period until the renewed operating licenses expire) continue to be met?
- 2.) Please describe the impact, if any, on the inspection frequency for the subject welds and inner radii.

B. Hanson

- 2 -

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The information requested and associated time frame were discussed with Mr. Mitch Mathews and other members of your staff during a NRC/EGC conference call held on August 17, 2016.

If you have any questions, please contact me at (301) 415-1129.

Sincerely,

/RA/

Russell S. Haskell II, Project Manager  
Plant Licensing Branch 3-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237 and 50-249

Enclosure:  
As stated

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**ADAMS Accession No. ML16229A547**

**\*Via E-mail**

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NAME	RHaskell	SRohrer	JMcHale	GEMiller	RHaskell
DATE	8/17/2016	8/17/2016	8/18/2016	8/17/2016	8/18/2016

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