

December 13, 2013
BW130109

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

Braidwood Station, Unit 2
Facility Operating License No. NPF-77
NRC Docket No. STN 50-457

Subject: Reply to a Notice of Violation, EA-13-209

Reference: Letter from David E. Hills (U.S. NRC) to Michael J. Pacilio (Exelon Generation Company, LLC), "Notice of Violation and Braidwood Station, Units 1 And 2, NRC Baseline Inservice Inspection Report 05000456/2013008; 05000457/2013008," dated November 14, 2013.

In the referenced letter, based on the results of an inspection completed on October 29, 2013, the NRC concluded that Braidwood Station was in violation of 10 CFR 50.9(a), "Completeness and Accuracy of Information." Specifically, on October 3, 2005, in Letter RS-05-103, Exelon Generation Company, LLC (EGC) failed to provide complete and accurate information to the NRC in that the analysis demonstrating adequate Reactor Pressure Vessel (RPV) margin did not account for the actual Unit 2 configuration of one RPV head stud removed. The NRC requested EGC to respond to the Notice of Violation within 30 days of the date of the referenced letter.

Attachment 1 to this letter contains EGC's response to the Notice of Violation. EGC does not contest the violation. This letter also contains a new regulatory commitment, which is identified in Attachment 2.

If you have any questions regarding this reply, please contact Mr. Phil Raush, Regulatory Assurance Manager, at (815) 417-2800.

Respectfully,



Mark E. Kanavos
Site Vice President
Braidwood Station

Attachments: 1) Reply to Notice of Violation
2) Summary of Regulatory Commitment

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Braidwood Station

ATTACHMENT 1
Reply to Notice of Violation

In a letter from David E. Hills (U.S. NRC) to Michael J. Pacilio (Exelon Generation Company, LLC), dated November 14, 2013, the NRC issued a Notice of Violation. The violation of NRC requirements was identified during an NRC inspection completed on October 29, 2013. The violation is stated below:

Title 10 of the *Code of Federal Regulations* (10 CFR) 50.9(a), "Completeness and Accuracy of Information," requires that "Information provided to the Commission by an applicant for a license or by a licensee or information required by statute, or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects."

In Letter No. RS-05-103, "License Amendment Request Regarding Reactor Coolant System Pressure, and Temperature Limits Report and Request for Exemption from 10 CFR 50.60, Acceptance Criteria for Fracture Prevention Measures for Lightwater Nuclear Power Reactors for Normal Operation," Attachment 4, "Justification for Exemption from 10 CFR 50.60," the licensee [Exelon Generation Company, LLC] stated "WCAP-16143 provides a valid basis for changing the RPV [Reactor Pressure Vessel] closure head flange limit and maintains the relative margin of safety commensurate with that which existed at the time the 10 CFR [Part] 50, Appendix G requirement was issued."

Contrary to the above, on October 3, 2005, in Letter No. RS-05-103, the licensee [Exelon Generation Company, LLC] failed to provide information to the Commission that was complete and accurate in all material respects, in that, WCAP-16143, "Reactor Vessel Closure H[e]ad/Vessel Flange Requirements Evaluation for Byron/Braidwood Units 1 and 2," did not provide a valid basis for changing the RPV closure head flange limit for Braidwood Unit 2. Specifically, WCAP-16143, Section 4, "Flange Integrity," demonstrated adequate vessel margins based upon the original closure head flange configuration and did not represent the modified closure head configuration (53 head studs applicable to the Unit 2 reactor vessel). Operation of the Braidwood Unit 2 vessel with 53 closure head studs was not within the bounds and limitations of what the NRC had reviewed in Letter No. RS-05-103 and found to be an acceptable basis to grant the exemption request. Therefore, this information was considered material to the NRC.

This is a Severity Level IV Violation.

Response:

1) Reason for the violation

Braidwood Station has performed a review of the circumstances related to the development of WCAP-16143-P, "Reactor Vessel Closure Head/Vessel Flange Requirements Evaluation for Byron/Braidwood Units 1 and 2," and the submittal of incomplete and inaccurate information in Letter No. RS-05-103. The reason for the violation is an inadequate technical human performance review associated with the acceptance review of WCAP-16143-P before the License Amendment Request/Exemption Request was submitted to the NRC. Technical details and inputs in WCAP-16143-P, specific to Braidwood and Byron, were not validated.

Exelon procedure, HU-AA-1212, "Technical Task Risk/Rigor Assessment, Pre-Job Brief, Independent Third Party Review, and Post-Job Review," provides direction for the performance of a Technical Task Risk/Rigor assessment for technical work that produces a tangible product (usually a document). As part of the HU-AA-1212 review, it was recognized that WCAP-16143-P was the technical basis for the License Amendment Request/Exemption Request. However, the procedural requirement to provide a compensating method to mitigate the risk of an error when an outside organization is providing significant inputs was not followed. In this instance, the inputs to the document should have been provided to the outside organization in writing and verified first hand.

Braidwood identified contributing reasons for the violation, including the details related to the information regarding 54 in lieu of 53 studs was not clearly listed as an input to the WCAP-16143-P analysis. Additionally, Braidwood identified that Design Engineering did not participate in the review process before the License Amendment Request/Exemption Request was sent to the NRC.

2) Corrective steps that have been taken and the results achieved

Braidwood Station has performed Operability Evaluation 13-005, "Support Document for PTLR Analysis Not Revised for Rx Head Stud Configuration Change," to demonstrate immediate operability of the Braidwood Station Unit 2 Reactor Pressure Vessel.

3) Corrective steps that will be taken

Braidwood Station has initiated revision to WCAP-16143-P to reflect the Braidwood Station Unit 2 configuration of 53 RPV head bolts. The revision is scheduled to be completed by August 15, 2014. The revised WCAP-16143-P will be submitted to the NRC for review by October 17, 2014.

4) Date when full compliance will be achieved

Full compliance will be achieved following NRC review of the EGC submittal of the revised WCAP-16143-P.

**ATTACHMENT 2
Summary of Regulatory Commitments**

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED DATE OR "OUTAGE"	COMMITMENT TYPE	
		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
1. Exelon Generation Company, LLC (EGC) will revise WCAP-16143-P, "Reactor Vessel Closure Head/Vessel Flange Requirements Evaluation for Byron/Braidwood Units 1 and 2 to reflect the Braidwood Unit 2 configuration of 53 reactor head studs and submit to the NRC for review.	October 17, 2014	Yes	No