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November 2, 2001
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United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Braidwood Station, Unit 1
Facility Operating License No. NPF-72
NRC Docket No. STN 50-456

Subject: Braidwood Station Unit 1 Response to Requested Action 5 of NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"

Reference: Letter from J. A. Benjamin (Exelon Generation Company, LLC) to U. S. NRC, "Exelon/AmerGen Response to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," dated August 31, 2001.

Attachment 2 of the Referenced letter contained the Braidwood Station response to NRC Bulletin 2001-01. In this response, Exelon Generation Company, LLC confirmed that Braidwood Station, Units 1 and 2 were low susceptibility plants with a greater than 30 Effective Full Power Years for an Oconee Nuclear Station 3 condition. Because of this low susceptibility to reactor vessel head penetration (VHP) cracking, Braidwood Station was not required by the Bulletin to perform any visual or alternative inspections in the near term nor to develop any future VHP inspection plans.


In accordance with requested action 5 of the Bulletin, Braidwood Station is providing the results of activities related to the Bulletin conducted during the Braidwood Station, Unit 1 fall refueling outage, which concluded on October 12, 2001. The results are contained in a report as an attachment to this letter. With this report, the requested actions of NRC Bulletin 2001-01 have been completed for Braidwood Station, Unit 1.

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Please direct any questions you may have regarding this submittal to Ms. Amy Ferko,
Regulatory Assurance Manager, at (815) 417-2699.

Respectfully,


James D. von Suskil
Site Vice President
Braidwood Station

Attachment: Response to NRC Bulletin 2001-01, Action 5, for Braidwood Station, Unit
1

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

Attachment

NRC Bulletin 2001-01 Requested Action 5

Addressees are requested to provide the following information within 30 days after plant restart following the next refueling outage:

- a. A description of the extent of VHP nozzle leakage and cracking detected at your plant, including the number, location, size, and nature of each crack identified;*
- b. If cracking is identified, a description of the inspections (type, scope, qualification requirements, and acceptance criteria), repairs, and other corrective actions you have taken to satisfy applicable regulatory requirements. This information is requested only if there are any changes from prior information submitted in accordance with this bulletin.*

Response:

Braidwood Station, Unit 1 has a low susceptibility to primary water stress corrosion cracking of the reactor pressure vessel (RPV) top head nozzles. Based on the data reported to the NRC in Materials Reliability Program (MRP)-48, "PWR Materials Reliability Program Response to NRC Bulletin 2001-01," Braidwood Station, Unit 1 ranks 64th out of 69 PWR plants. Therefore, inspections to demonstrate compliance with existing regulations were not required by the Bulletin. However, during the Braidwood Station fall 2001 refueling outage, visual examinations were performed of the accessible areas of the RPV head during Mode 3 prior to unit shutdown. These exams were performed using ASME Section XI VT-2 certified personnel and were intended to detect leakage or boric acid deposits per NRC Generic Letter 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants," commitments. These exams were conducted on the RPV head with the shroud assembly access doors opened and the RPV head insulation in-place. There were no signs of leakage or boric acid deposits.

Also, during the Braidwood Station, Unit 1 fall 2001 refueling outage, a VT-3 visual examination, using ASME Section XI certified personnel, was performed on the underside of the RPV head using a remote camera arrangement. This exam was conducted per the requirements of ASME Section XI, Category B-N-1, Item B13.10, and included a visual examination of the surface of the VHP to RPV head weld. There were no signs of cracking, linear indications, erosion, corrosion, or wear.

Finally, during the restart of Braidwood Station, Unit 1 from the refueling outage, a visual examination, at normal operating pressure and temperature, was performed using ASME Section XI certified personnel. The exam was conducted per the requirements of ASME Section XI, Category B-P, Item B15.10, and included the accessible areas of the RPV head. There were no signs of leakage.