

Exelon Generation Company, LLC      www.exeloncorp.com  
Braidwood Station  
35100 South Route 53, Suite 84  
Braceville, IL 60407-9619

June 25, 2008  
BW080057

10 CFR 50.54 (f)

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
11555 Rockville Pike  
Rockville, Maryland 20852

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

Subject: Braidwood Station Unit 2 60-Day Response to NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Connections at Pressurized-Water Reactors"

On May 28, 2004, the NRC issued NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Connections at Pressurized-Water Reactors." Requested Information section 2(a) of this bulletin requires the following information be submitted to the NRC within 60 days after plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections:

"...a statement indicating that the inspections described in the licensee's response to item (1)(c) of this bulletin were completed and a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found."

Pursuant to 10 CFR 50.54, "Conditions of licenses," paragraph (f), Attachment 1 to this letter provides the Braidwood Station Unit 2 60-Day response. This response is due to the NRC by July 16, 2008 based on the Braidwood Station Unit 2 Spring 2008 refueling outage ending on May 17, 2008.

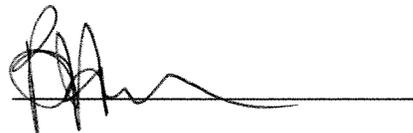
June 25, 2008  
U. S. Nuclear Regulatory Commission  
Page 2

Please direct any questions you may have regarding this submittal to Mr. David Gullott,  
Regulatory Assurance Manager, at (815) 417-2800.

I declare under penalty of perjury that the foregoing is true and correct.

Respectfully,

Executed on June 25, 2008

A handwritten signature in black ink, appearing to read 'Bryan Hanson', written over a horizontal line.

Bryan Hanson  
Site Vice President  
Braidwood Station

Attachment: Braidwood Station Unit 2 60-Day Response to NRC Bulletin 2004-01

ecc: Illinois Emergency Management Agency - Division of Nuclear Safety  
Site Vice President - Braidwood Station  
Regulatory Assurance Manager - Braidwood Station  
Director, Licensing and Regulatory Affairs  
Manager, Licensing – Braidwood, Byron and LaSalle County Stations  
Braidwood Nuclear Licensing Administrator  
Braidwood Commitment Tracking Coordinator  
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**ATTACHMENT**

**Braidwood Station Unit 2**

**60-Day Response to NRC Bulletin 2004-01**

**" Inspection of Alloy 82/182/600 Materials Used in the Fabrication of  
Pressurizer Penetrations and Steam Space Connections  
at Pressurized-Water Reactors "**

On May 28, 2004, the NRC issued Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Connections at Pressurized-Water Reactors." This bulletin requires the following information be submitted to the NRC within 60 days after plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections:

*"...a statement indicating that the inspections described in the licensee's response to item (1)(c) of this bulletin were completed and a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found."*

## Response

### **Summary of the Inspections Performed, Extent of the Inspections, and Methods Used**

During the Spring 2008 (A2R13) refueling outage, a bare metal visual (BMV) examination was performed on all five of the Braidwood Station Unit 2 pressurizer steam space penetrations and adjacent pressurizer shell surfaces. The examination was conducted in accordance with Exelon procedures ER-AA-335-015, "VT-2 Examination," ER-AP-331-1001, "Boric Acid Corrosion Control (BACC) Inspection Locations, Implementation, and Inspection Guidelines," and ER-AP-331-1002, "Boric Acid Corrosion Control Program Identification, Assessment, and Evaluation."

The examination was performed after insulation was removed from the top of the pressurizer and the five associated penetrations. The examination was a direct visual examination of the area of interest, ensuring any boric acid leakage would be easily identified.

The full circumference of each of the five penetrations was examined. The examination was performed real time by a certified VT-2 examiner.

### **Description of the As-Found Condition, Findings of Relevant Indications, and Summary of the Disposition of any Findings**

The examination of the five penetrations and adjacent pressurizer vessel surfaces identified no evidence of any boric acid deposits associated with reactor coolant leakage.

### **Corrective Actions Taken**

Based on the acceptable as found condition of the five penetrations and adjacent pressurizer vessel surfaces, there was no follow-up NDE, disposition of findings, or corrective actions required.

### **Mitigation Efforts Completed**

Braidwood Station completed the installation of primary water stress corrosion cracking (PWSCC) resistant full structural weld overlays of all steam space nozzles (three safety valve nozzles, one relief valve nozzle, and one spray nozzle) during the Spring 2008 refueling outage. With the completion of these weld overlays, Braidwood Station will no longer perform a 100% bare metal visual examination of these welds, as they are no longer susceptible to PWSCC degradation.