

November 13, 2008

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 and 50-278

Subject: Relief Requests Associated with the Third and Fourth Inservice Inspection (ISI) Intervals and the First and Second Containment Inservice Inspection (CISI) Intervals – Submittal of Revised Relief Request I4R-47

- References:**
- 1) Letter from P. B. Cowan (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Submittal of Relief Requests Associated with the Third and Fourth Inservice Inspection (ISI) Intervals and the First and Second Containment Inservice Inspection (CISI) Intervals," dated February 29, 2008
 - 2) Letter from J. D. Hughey (U. S. Nuclear Regulatory Commission) to C. G. Pardee (Exelon Generation Company, LLC), "Peach Bottom Atomic Power Station, Units 2 and 3 – Request for Supplemental Information Regarding Relief Request I4R-44 (TAC NOS. MD8296 and MD8297)," dated May 7, 2008
 - 3) Letter from P. B. Cowan (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Response to Request for Supplemental Information Associated with Relief Request I4R-44," dated May 13, 2008
 - 4) Letter from J. D. Hughey (U. S. Nuclear Regulatory Commission) to C. G. Pardee (Exelon Generation Company, LLC), "Peach Bottom Atomic Power Station, Units 2 and 3: Request for Additional Information Regarding Relief Request CRR-13 Associated with the First and Second Containment Inservice Inspection Intervals (TAC NOS. MD8308 and MD8309)," dated July 9, 2008
 - 5) Letter from P. B. Cowan (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Relief Requests Associated with the Third and Fourth Inservice Inspection (ISI) Intervals and the First and Second Containment Inservice Inspection (CISI) Intervals – Response to Request for Additional Information Concerning Relief Request CRR-13," dated August 4, 2008
 - 6) Letter from J. D. Hughey (U. S. Nuclear Regulatory Commission) to C. G. Pardee (Exelon Generation Company, LLC), "Peach Bottom Atomic Power Station, Units 2 and 3: Request for Additional Information Regarding Relief Request CRR-13 Associated with the First and Second Containment Inservice Inspection Intervals (TAC NOS. MD8308 and MD8309)," dated October 2, 2008

- 7) Letter from J. D. Hughey (U. S. Nuclear Regulatory Commission) to C. G. Pardee (Exelon Generation Company, LLC), "Peach Bottom Atomic Power Station, Units 2 and 3: Request for Additional Information Regarding Relief Request I4R-47 Associated with the Fourth Inservice Inspection Interval (TAC NOS. MD8304 and MD8305)," dated October 2, 2008
- 8) Letter from P. B. Cowan (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Relief Requests Associated with the Third and Fourth Inservice Inspection (ISI) Intervals and the First and Second Containment Inservice Inspection (CISI) Intervals - Response to Request for Additional Information Concerning Relief Request CRR-13 and I4R-47, and Withdrawal of Relief Request I4R-08," dated October 9, 2008

In the Reference 1 letter, Exelon Generation Company, LLC (EGC) submitted for your review and approval relief requests associated with the third and fourth Inservice Inspection (ISI) intervals for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. Also included for your review and approval were relief requests associated with the first and second Containment Inservice Inspection (CISI) intervals for PBAPS, Units 2 and 3. References 2 through 8 involved NRC requests for additional information (and responses to same) associated with the Reference 1 submittal.

As a result of a conversation with the NRC staff on October 22, 2008, EGC is supplementing Reference 8 by revising Relief Request I4R-47. Additionally, Relief Request I4R-47 has been revised to include Table IWB-2500-1, Category B-P, Item No. B15.50, Note (2) in the "Applicable Code Requirement" section for clarification. Attached is this revised Relief Request I4R-47.

There are no regulatory commitments contained in this letter.

Should you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.

Respectfully,

gdx


Pamela B. Cowan
Director – Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachment: Revised Relief Request I4R-47

cc: S. J. Collins, Regional Administrator, Region I, USNRC
F. Bower, USNRC Senior Resident Inspector, PBAPS
J. Hughey, Project Manager, USNRC
S. T. Gray, State of Maryland
R. R. Janati, Commonwealth of Pennsylvania

Attachment

Revised Relief Request I4R-47

**Relief Request I4R-47 for Testing of Control Rod Drive Pressure Boundaries In
Accordance with 10 CFR 50.55a(a)(3)(i)
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1. ASME CODE COMPONENTS AFFECTED:

Code Class: 1
Reference: IWB-5222(b), Table IWB-2500-1
Examination Category: B-P
Item Number: B15.10
Description: Alternative Examination Requirements of ASME Section XI, Table IWB-2500-1, "Pressure Retaining Boundary"
Component Number(s): Class 1 piping between CV-2(3)-03A-13-127 (valves AA through HC inclusive, total of 185 valves) and HV-2(3)-03A-13112 (valves AA through HC inclusive, total of 185 valves)
Drawing Number(s): ISI-357, Sheets 1 & 2

2. APPLICABLE CODE EDITION AND ADDENDA:

The Inservice Inspection program is based on the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 2001 Edition through the 2003 Addenda.

3. APPLICABLE CODE REQUIREMENT:

The following Code requirements are paraphrased from the 2001 Edition through the 2003 Addenda of ASME Section XI.

IWB-5222(b) requires the pressure retaining boundary during the system leakage test conducted at or near the end of each inspection interval be extended to all Class 1 pressure retaining components within the system boundary.

Table IWB-2500-1, Category B-P, Item No. B15.50, Note (2) requires the System Leakage Test of piping pressure-retaining boundary be conducted prior to plant startup following each reactor refueling outage.

4. REASON FOR REQUEST:

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested on the basis that the proposed alternative provides an acceptable level of quality and safety.

The piping in question is the Class 1 piping between the CV-2(3)-03A-13-127 valve (valves AA through HC inclusive, total of 185 valves) and the HV-2(3)-03A-13112 valve (valves AA through HC inclusive, total of 185 valves) for each of the 185 Control Rod Drive Mechanisms. During normal system lineup required for startup, the CV-2(3)-03A-13-127 valves are in the closed position. The HV-2(3)-03A-13112 valves are in the open position. The only time the CV-2(3)-03A-13-127 valves are open is during a plant scram or during CRD Scram Time testing.

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During the performance of the system leakage test prior to plant startup following a refueling outage, the test boundary is the reactor coolant boundary with all valves in the position required for normal reactor operation startup (the CV-2(3)-03A-13-127 valves are closed). This test is conducted in accordance with Table IWB-2500-1 Item B15.10 and IWB-5222(a). As required by IWB-5222(a), the visual examination is to extend to the second closed Class 1 valve at the extremity of the boundary. This test is conducted in accordance with the code.

However, during the system leakage test conducted at or near the end of the ten-year ISI interval in accordance with IWB-5222(b), the pressure boundary extends to all Class 1 pressure retaining components which includes the piping between CV-2(3)-03A-13-127 and the Scram Discharge Volume (HV-2(3)-03A-13112). In order to pressurize the piping between the CV-2(3)-03A-13-127 valves and the HV-2(3)-03A-13112 valves and hold it for inspection, all 185 HV-2(3)-03A-13112 valves would have to be manually closed prior to inserting a scram which is a manpower intensive activity.

Alternately, the piping could be pressurized for testing by isolating each of the 185 segments of piping, and pressurizing with a manual hydro pump. This approach would involve filling and venting of the subject piping, and manipulating 4 valves and installing a fill hose at a threaded connection for each of the 185 piping segments. This activity is also manpower intensive.

This section of piping does not pressurize to nominal reactor operating pressure except for a very brief time during plant Scrams and Scram Time testing similar to normal operating conditions. If this piping were to develop a leak, it would be identified during the Scram Time testing by the personnel performing the testing. The piping between the HV-2(3)-3A-13112 valves and the CHK-2(3)-3A-13114 valves is pressurized and tested during the completion of the Scram Discharge Volume System leakage tests.

Table IWB-2500-1 Item B15.10, Note 2, states that the system leakage test shall be conducted prior to plant startup following each reactor refueling outage. Scram Time testing is required to be 100% complete for each outage prior to exceeding 40% Reactor Thermal Power per Peach Bottom Technical Specifications 3.1.4, which is after plant startup following a refueling outage.

The piping in question is approximately 24 inches of $\frac{3}{4}$ inch nominal OD schedule 80 stainless steel socket welded piping for each control rod drive. This piping is not susceptible to a corrosive environment nor is it susceptible to vibrations that would induce cracking. There have been no known leaks in this piping at PBAPS, Units 2 and 3.

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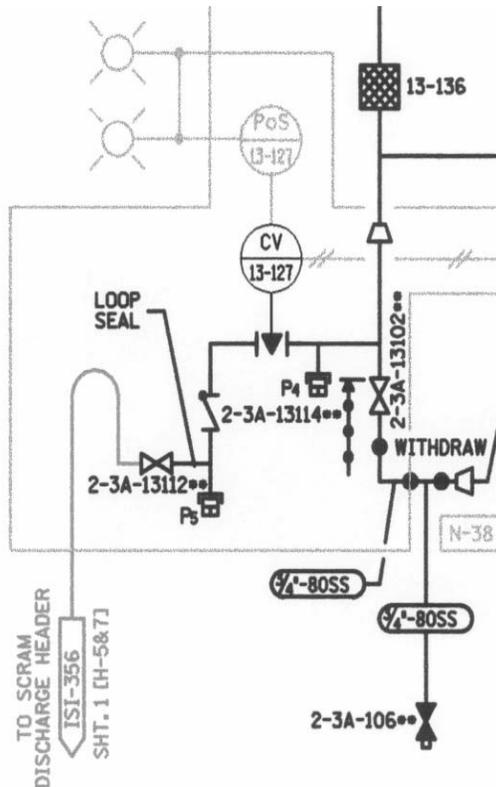


Figure I4R-47-1

5. PROPOSED ALTERNATIVE AND BASIS FOR USE:

As a proposed alternative in accordance with 10 CFR 50.55a(a)(3)(i), for the portion of the piping between the CV-2(3)-03A-13-127 valves and the HV-2(3)-03A-13112 valves for each of the 185 Control Rod Drives, Peach Bottom Atomic Power Station proposes to use the Scram Time Testing that is performed for each Control Rod Drive after plant startup but prior to achieving 40% power at the conclusion of the outage at or near the end of the interval as a means to pressurize this piping. A VT-2 qualified individual will be present during the Scram Time Testing to perform each visual examination. Additionally, as part of this test, procedures will be revised to ensure that the VT-2 examiner confirms with the control room that the examination is complete prior to the test switch being returned to normal.

6. DURATION OF PROPOSED ALTERNATIVE:

Relief is requested for the fourth ten-year inspection interval for Peach Bottom Atomic Power Station, Units 2 and 3. The fourth ISI interval is scheduled to begin on November 5, 2008 as proposed in relief request I3R-45 and will conclude on November 4, 2018 for Peach Bottom Atomic Power Station, Units 2 and 3.

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7. PRECEDENTS:

None