

Exelon Nuclear  
200 Exelon Way  
Kennett Square, PA 19348

www.exeloncorp.com

October 23, 2001

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

Peach Bottom Atomic Power Station, Unit 3  
Facility Operating License No. DPR- 56  
NRC Docket No. 50-278

Subject: Submittal of Analytical Evaluation of Reactor  
Pressure Vessel Closure Head Indications

Dear Sir/Madam:

In accordance with the ASME Boiler and Pressure Vessel Code, Section XI, IWB-3134(b), Exelon Generation Company, LLC, is submitting an analytical evaluation of indications identified in the Peach Bottom Atomic Power Station (PBAPS), Unit 3 reactor pressure vessel (RPV) closure head.

As a result of manual Ultrasonic Testing (UT) examinations conducted during the recently concluded refueling outage at PBAPS, Unit 3, ASME Section XI reportable indications were identified in meridional welds of the reactor pressure vessel closure head. These meridional welds are Examination Category B-A, Item No. B1.22 welds, as identified in ASME Section XI, 1989 Edition (no addenda). The examinations were performed in accordance with ASME Section XI, Appendix VIII, 1995 Edition with the 1996 Addenda, using approved Performance Demonstration Initiative (PDI) procedures, as modified for the PBAPS, Unit 3 RPV closure head. Analytical evaluation of the reported indications was conducted in accordance with IWB-3600, as allowed by IWB-3132.4.

Periodic Inservice Inspection (ISI) examinations were initially conducted on six (6) meridional welds and one (1) circumferential weld on the vessel closure head and on two (2) meridional welds on the bottom head. As a result of the reportable indications identified in three (3) meridional closure head welds, additional examinations were performed in accordance with ASME Section XI, IWB-2430(a). This additional scope included manual UT examination on two (2) additional meridional welds in the reactor vessel bottom head.

The results of all RPV head weld examinations identified reportable indications in three welds in the closure head (welds CH-MA, CH-MC, and CH-MF). These indications did not meet the ASME Section XI acceptance standards as specified in Table IWB-3510-1. No reportable indications were identified in the other RPV head welds.

A001

Read  
c17/12

As-evaluated indications identified in the RPV closure head welds are as follows:

<u>Weld</u>	<u>Characterized Indication Length (inches)</u>	<u>Characterized Indication Depth (inches)</u>
CH-MA	42	.311
CH-MC	1.40	.424
	1.70	.495
	1.30	.564
CH-MF	1.50	.560

Based on the analytical evaluation provided in the attachment, it is concluded that the indications found in the PBAPS, Unit 3 vessel closure head, during the most recently concluded refueling outage, are acceptable by the flaw acceptance criteria of IWB-3600 to Section XI of the ASME Code.

Subsequent to the manual UT examinations of the RPV head welds described above, a rescan of the weld indication areas in the closure head was performed with an automated (GERIS) Ultrasonic Testing tool. These supplemental examinations were performed as described in IWB-3200(a), to better characterize the indications, and to establish repeatable baseline examination data. Although the GERIS results were not used in the attached evaluation, the GERIS results are bounded by the manual results.

If you have any questions, please do not hesitate to contact us.

Sincerely,



Michael P. Gallagher  
Director, Licensing and Regulatory Affairs  
Mid-Atlantic Regional Operating Group

Attachment

cc: H. J. Miller, Administrator, Region I, USNRC  
A. C. McMurtray, USNRC Senior Resident Inspector, PBAPS  
J. Boska, USNRC Senior Project Manager