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10 CFR 50.55a

November 28, 2018

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

> 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: Response to Request for Additional Information Relief Requests Associated with the Fifth Inservice Inspection Interval
- References: 1) Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Relief Requests Associated with the Fifth Inservice Inspection Interval," dated April 19, 2018
  - Email from J. Tobin (U.S. Nuclear Regulatory Commission) to D. Helker (Exelon Generation Company, LLC), "Peach Bottom Units 2 and 3 -Request for Additional Information - Relief Request I5R-05 (EPID L-2018-LLR-0058)," dated August 14, 2018 (ML18226A201)
  - Email from J. Tobin (U.S. Nuclear Regulatory Commission) to D. Helker (Exelon Generation Company, LLC), "Peach Bottom Units 2 and 3 -Request for Additional Information - Relief Request I5R-06 (EPID L-2017-LLR-0059)," dated August 15, 2018 (ML18227A107)
  - 4) Email from J. Tobin (U.S. Nuclear Regulatory Commission) to D. Helker (Exelon Generation Company, LLC), "Peach Bottom Units 2 and 3 -Request for Additional Information FINAL - Relief Request I5R-04 (EPID L-2018-LLR-0057)," dated August 27, 2018 (ML18239A132)
  - 5) Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information - Relief Requests Associated with the Fifth Inservice Inspection Interval," dated September 6, 2018

In the Reference 1 letter, Exelon Generation Company, LLC submitted for your review relief requests associated with the fifth Inservice Inspection (ISI) interval for the Peach Bottom Atomic Power Station, Units 2 and 3. The fifth interval program complies with the 2013 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code.

In the Reference 2, 3, and 4 emails, the U.S. Nuclear Regulatory Commission Staff requested additional information. Reference 5 was our response.

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Based on additional discussions with the U.S. Nuclear Regulatory Commission Staff, the response to Question I5R-06 is being supplemented. Attached is the original response with the supplemental information identified with a revision bar.

There are no regulatory commitments in this response.

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

Respectfully,

CMM3

James Barstow Director - Licensing & Regulatory Affairs Exelon Generation Company, LLC

Attachments: 1) Supplemental Response to Request for Additional Information - I5R-06

cc: USNRC Region I, Regional Administrator USNRC Senior Resident Inspector, PBAPS USNRC Project Manager, PBAPS R. R. Janati, Pennsylvania Bureau of Radiation Protection D. A. Tancabel, State of Maryland

# Attachment 1

Supplemental Response to Request for Additional Information -I5R-06

## Question (I5R-06):

"Address the following plant-specific items for the fifth ISI interval. The plant-specific responses are to consider the impact of stuck studs, missing studs, flange holes with bushings, and other unique flange-stud configurations, as applicable.

- 1. Provide a detailed description of the "care and visual inspections" performed on the RPV threads in flange and studs each time the RPV head is removed. Alternatively, provide the procedures that control the care and visual inspection activities.
- 2. Justify that the existing care and visual inspection activities will provide assurance that degradation of the RPV threads in flange is detected and mitigated prior to returning the reactor to service each time the RPV closure head is removed during the fifth ISI interval if volumetric inspections are not performed."

## Response:

As stated in Relief Request I5R-06, to protect against non-service related degradation, detailed procedural guidance is used during each refueling outage for the removal, care and visual inspection of the RPV studs and the threads in flange each time the RPV closure head is removed. Care is taken to not only remove the studs, but once the studs are removed, to inspect the RPV threads for damage and to install RPV stud plugs to protect threads from damage. Prior to reinstallation, the studs and stud holes are cleaned and lubricated. The studs are then reinstalled and tensioned into the RPV flange. This activity is performed each refueling outage and the procedure documents each step. These controlled maintenance activities provide further assurance that degradation is detected and mitigated prior to returning the reactor to service.

The care and visual inspections performed on the RPV threads in flange and studs are described in the following excerpts of the PBAPS, Units 2 and 3 site specific procedures:

### REACTOR PRESSURE VESSEL DISASSEMBLY (M-004-200)

- 5.7 RPV Head Stud Detensioning Preparation
- 5.7.16 **CLEAN** RPV head flange, studs, and area around each nut/washer.
- 5.7.17 LUBRICATE studs with lubricant (DAG 156).

WV

5.7.18 **INITIAL** AND **DATE** indicating subsection complete.

WV

### REACTOR PRESSURE VESSEL REASSEMBLY (M-004-400)

#### 5.10 RPV Head Installation Preparation

5.10.9 **NOTIFY** Radiation Protection prior to cleaning RPV stud holes and RPV flange.

Person Contacted WV

5.10.10 **CLEAN** six vacated RPV flange stud holes, THEN **APPLY** lubricant (DAG 156) to stud hole threads.

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#### 5.12 RPV Head Stud Installation

5.12.6 INSTALL studs as follows:
1. ENSURE stud hole is clean and free of debris, <u>THEN</u> LUBRICATE stud hole threads with lubricant (DAG 156).

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6. LUBRICATE stud threads with lubricant (DAG 156).

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- 5.13 RPV Head Stud Tensioning Preparation
- 5.13.6 **INSPECT** accessible surfaces of studs for dirt, grit, or other foreign material in thread roots and outside stud surfaces. **CLEAN** as necessary.
- 5.13.7 **CLEAN** stud rod holes using wet vacuum or other suitable tool.

### PEER CHECK

5.13.8 **VERIFY** studs and stud rod holes are clean and free of debris.

WV PC

In the event that damage is identified to the RPV studs and the threads, a corrective action issue report is initiated to document the condition in accordance with plant administrative procedures. The 10 CFR Part 50, Appendix B corrective action program ensures that conditions adverse to quality are promptly corrected.