

RS-16-195

10 CFR 50.55a(z)

September 29, 2016

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

Byron Station, Units 1 and 2  
Renewed Facility Operating License Nos. NPF-37 and NPF-66  
NRC Docket Nos. STN 50-454 and STN 50-455

Subject: Supplemental Information for the Byron Station Fourth Inservice Inspection  
Interval Relief Request I4R-08

References: (1) Letter from D. M. Gullott (Exelon Generation Company, LLC (EGC)) to  
NRC, "Relief Requests Associated with the Fourth Inservice Inspection  
Interval," dated April 15, 2016

(2) Email from J. S. Wiebe (NRC) to M. A. Mathews (EGC), "Request for  
Additional Information Regarding Relief Request I4R-08," dated  
August 31, 2016

In the Reference 1, EGC submitted relief requests associated with the fourth inservice inspection (ISI) interval for Byron Station, Units 1 and 2. During the NRC's review of Reference 1, the NRC found that additional information is required to support its review of Relief Request I4R-08, as discussed in Reference 2. The requested information is provided in the attachment to this letter.

There are no regulatory commitments contained within this letter. Should you have any questions concerning this letter, please contact Mr. Mitchel A. Mathews at (630) 657-2819.

Respectfully,



David M. Gullott  
Manager – Licensing  
Exelon Generation Company, LLC

Attachment: Supplemental Information for Byron Station, Units 1 and 2 10 CFR 50.55a  
Request I4R-08

## ATTACHMENT

### Supplemental Information for Byron Station, Units 1 and 2 10 CFR 50.55a Request I4R-08

Following is the NRC's request for additional information in bold italicized font followed by Exelon Generation Company LLC's (EGC's) response:

***In its submittal dated April 15, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML16106A116), Attachment 4, Table 3, the licensee states that the two indications found in the beltline region were found in the forging material. The Region and Component Description section of Table 4 includes multiple components described as forgings. Identify the component(s) in which the indications were found.***

#### **EGC Response:**

During Byron Station, Unit 2 Refueling Outage, B2R13, two embedded planar indications were discovered during the ultrasonic examination of the Mid Shell to Lower Shell Circumferential weld designated as Weld RPVC-WR18. Both indications were evaluated as acceptable in accordance with the 2001 Edition through the 2003 Addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Subsection IWB-3510, "Standards for Examination Category B-A, Pressure Retaining Welds in Reactor Vessel, and Examination Category B-B, Pressure Retaining Welds in Vessels Other Than Reactor Vessels." This weld is listed as Item No. 4 in Table 4 of Attachment 4 in the letter referenced below. Please note that a portion of the weld number for this weld was inadvertently obscured in the formatting of Table 4 of Attachment 4 of the submittal referenced below. The full weld number is WF-447.

Indication No. 1 is an axially oriented flaw, and was classified as a planar subsurface indication 1.1 inch (") long, 0.41" from the reactor pressure vessel (RPV) inside diameter (ID) surface. The indication had a through-wall extent of 0.22" in an area with a thickness of 8.63" and is located at approximately 158 vessel degrees. The indication is 5.2" below the weld centerline in the base material of the Lower Shell Forging (i.e., Attachment 4, Table 4, Item No. 5 of the submittal referenced below).

Indication No. 2 is also an axially oriented flaw, classified as a planar subsurface indication 0.6" long, 0.26" from the RPV outside diameter (OD) surface. This indication had no through-wall extent in an area with a thickness of 8.63" and is located at approximately 338 vessel degrees. A conservative method to evaluate the through-wall extent was applied using the resolution capabilities of the transducer to determine the smallest flaw that can be recorded. The indication is 3.7" below the weld centerline in the base material in the Lower Shell Forging (i.e., Attachment 4, Table 4, Item No. 5 of the submittal referenced below).

#### **Reference:**

Letter from D. M. Gullott (EGC) to NRC, "Relief Requests Associated with the Fourth Inservice Inspection Interval," dated April 15, 2016