

## NRR-PMDAPEm Resource

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**From:** Mozafari, Brenda  
**Sent:** Friday, April 17, 2015 9:31 AM  
**To:** Nicely, Ken M.:(GenCo-Nuc) (ken.nicely@exeloncorp.com); Simpson, Patrick R.:(GenCo-Nuc) (patrick.simpson@exeloncorp.com)  
**Cc:** Tate, Travis; Purnell, Blake  
**Subject:** Additional DRAFT RAI Questions for Quad Cities (TAC Nos. MF3397 AND MF3398)

Ken,

The NRC staff has reviewed and evaluated the information provided by, Exelon Generation Company, LLC (EGC) (the licensee) in its letter dated October 16, 2014. The licensee submitted additional information for Request for Relief (RR) I4R-20 from the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI for Quad Cities Nuclear Power Station, Units 1 and 2 (QCNPS 1 and 2). The requests for relief apply to the fourth 10-year inservice inspection interval, in which the licensee adopted the 1995 Edition through the 1996 Addenda of ASME Code Section XI as the code of record.

**SECOND REQUEST FOR ADDITIONAL INFORMATION**  
**ON THE FOURTH TEN YEAR 10-YEAR INSERVICE INSPECTION INTERVAL REQUEST FOR**  
**RELIEF I4R-20**  
**FOR**  
**EXELON GENERATION COMPANY, LLC.**  
**QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 DOCKET**  
**NUMBERS: 50-254 AND 50-265**

1. SCOPE

By letter dated January 23, 2014, (Agencywide Documents Access & Management System (ADAMS) Accession Number ML14023A865), the licensee, Exelon Generation Company, LLC (EGC), submitted Request for Relief (RR) I4R-20 from the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, *Rules for Inservice Inspection of Nuclear Power Plant Components* for Quad Cities Nuclear Power Station, Units 1 and 2 (QCNPS 1 and 2). The request for relief applies to the fourth 10-year inservice inspection (ISI) interval, in which the licensee adopted the 1995 Edition through the 1996 Addenda of ASME Code Section XI as the code of record. The U. S. Nuclear Regulatory Commission (NRC) requested that the licensee provide further information, and the licensee provided a response to the Request for Additional Information (RAI) in a letter dated October 16, 2014, (ADAMS Accession Number ML14293A450).

However, certain requested information was not provided and/or requires clarification in order for the staff to complete the evaluation of the licensee's request. Answer the following questions.

2. REQUEST FOR ADDITIONAL INFORMATION

2.1 Request for Relief I4R-17, Examination Category B-A, Items B1.40 and B1.51, Pressure Retaining Welds in Vessels in Reactor Vessels, QCNPS 1 and 2

<b>Code Item</b>	<b>Weld ID</b>	<b>Weld Type</b>	<b>Coverage</b>
B1.51	1/REACTORVESSEL/BMR-0	RPV WELD BELTLINE REPAIR	82.0%
B1.51	1/REACTORVESSEL/BMR-1	RPV WELD BELTLINE REPAIR	87.0%

- 2.1.1 Provide coverage plots for all RPV beltline repair welds listed in Table 2.1.1 above. From the coverage records provided in the licensee's RAI response, it is difficult to tell which areas have been covered.
- 2.2 Request for Relief I4R-20, Part B, Examination Category B-D, Item B3.90, Full

Penetration Welded Nozzles in Vessels, QCNPS 1 and 2

Verify in that the base materials near the inside surface of the weld joints, particularly the high regions of stress, were examined in the B-D, Items B3.90 welds in QCNPS 1 and 2.

2.3 Request for Relief I4R-20, Part D, Examination Category R-A, Item R1.20, Risk Informed Piping Examinations, QCNPS 1

The licensee requested relief for limited examinations of dissimilar metal welds included in their risk-informed piping program. These welds are designated as R1.20, which indicates that “no known degradation mechanism” has been identified. The licensee obtained significant volumetric coverage on these welds (approximately 86 per cent); however, it is unclear whether the correct RI-ISI designation has been assigned. Please discuss the following:

- a. What are the materials of construction for the nozzle, the safe end, and the weld metal?
- b. If the welds contains alloy 82, discuss the designation of the weld as R1.20 considering operational experience with stress corrosion cracking in Alloy 82 welds in Boiling Water Reactors.

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