NRR-PMDAPEm Resource

From: Mozafari, Brenda
Sent: Wednesday, August 13, 2014 9:52 AM
To: Mitchel.Mathews@exeloncorp.com
Cc: Tate, Travis; Purnell, Blake; Alley, David; Rosenberg, Stacey; Cumblidge, Stephen; McLellan, Thomas
Subject: DRAFT Request for Additional Information regarding Dresden Fourth 10-Year Inservice Inspection Interval - Request for Relief I4R-17 (TAC MF3352 and MF3353)

Mitch,
Below are DRAFT questions associated with the subject RAI for Dresden units 2 and 3. A clarification call is being set up for an hour during the week of Aug 25. We will discuss the time further when we are firm on Aug 28 (or Aug 25).

REQUEST FOR ADDITIONAL INFORMATION
ON THE FOURTH 10-YEAR INSERVICE INSPECTION INTERVAL
REQUEST FOR RELIEF I4R-17
EXELON GENERATION COMPANY, LLC.
DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3
DOCKET NUMBERS: 50-237 AND 50-249
TAC NUMBERS MF3352 AND MF3353

SCOPE

By letter dated December 30, 2013 (ML13364A361), the Exelon Generation Company, LLC (the licensee), submitted Request for Relief (RR) I4R-17 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 Dresden Nuclear Power Station, Units 2 and 3 (DNPS 2 and 3). 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.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(5)(iii), the licensee has submitted the subject request for relief for limited examinations in multiple ASME Code Examination Categories. The ASME Code requires that 100 percent of the examination volumes, or surface areas, described in Tables IWB-2500 and IWC-2500 be performed during each interval. The licensee stated that 100 percent of the ASME Code-required volumes, or surface areas, are impractical to obtain at DNPS 2 and 3.

10 CFR 50.55a(g)(5)(iii) states that when licensees determine that conformance with ASME Code requirements is impractical at their facility; they shall submit information to support this determination. The U.S. Nuclear Regulatory Commission (NRC) will evaluate such requests based on impracticality, and may impose alternatives, giving due consideration to public safety and the burden imposed on the licensee.

The NRC staff has reviewed the information submitted by the licensee, and based on this review, determined the following information is required to complete the evaluation. For clarity, the licensee's requests have been evaluated according to ASME Code Examination Category and corresponding request for relief.

REQUEST FOR ADDITIONAL INFORMATION

1. General Information Required on All Welds in Request for Relief I4R-17

   The licensee has provided only general information regarding the impracticality of obtaining ASME Code-required volumetric or surface examinations, as applicable. Statements such as "component

configuration" or "nozzle configurations" are inadequate to explain the bases for not obtaining the ASME Code-required examination volumes. No sketches with dimensional information or restricting appurtenances that adequately demonstrate the causes of limited accessibility have been included.

Submit detailed and specific information to support the bases for limited examination coverage for all welds in request for relief I4R-17, and therefore, demonstrate impracticality.

a) Include detailed descriptions (written and/or sketches, as necessary) of the interferences to applied nondestructive examination (NDE) techniques.
b) As applicable, describe NDE equipment (ultrasonic scanning apparatus), details of the listed obstructions (size, shape, proximity to the weld, etc.) to demonstrate accessibility limitations.
c) Fully clarify the wave modality and insonification angles used for all ultrasonic examinations. If applicable, state whether shear wave only techniques were used to examine any austenitic weld. The longitudinal wave method has been shown capable of detecting planar inside diameter (ID) surface-breaking flaws on the far-side of austenitic welds. If longitudinal examination methods were not employed please justify why these techniques were not used as part of a best effort examination. (*Note: This information does not apply to Examination Categories B-K and C-C welds, as only surface examinations are required.)*
d) Show cross-sectional or surface coverage plots to describe the ASME Code volumes and surfaces examined.
e) State whether any indications were discovered as a result of ASME Code-required examinations, and describe how these indications have been analyzed and disposition when completed.
f) If the ASME Code requirement required a surface examination in addition to the required volumetric examination provide the results of the surface examinations and describe any indications that were detected.

2. Request for Relief I4R-17, Part A, ASME Code, Section XI, Examination Category B-A, Items B1.12 and 1.40, Pressure Retaining Welds in Vessels in Reactor Vessels, DNPS 2 and 3

Confirm whether or not the examinations of the welds listed under Examination Category B-A, Item B1.12, were conducted in accordance with the performance demonstration requirements described in ASME Code, Section XI, Appendix VIII. If not, describe the examination methodology and requirement that was used for the examinations.

3. Request for Relief I4R-17, Part B, ASME Code, Section XI, Examination Category B-D, Items B3.90 and B3.100, Full Penetration Welded Nozzles in Vessels, DNPS 2 and 3

Confirm whether or not the that examinations of all welds listed under Examination Category B-D were conducted in accordance with the performance demonstration requirements described in ASME Code, Section XI, Appendix VIII. If not, describe the examination methodology and requirement that was used for the examinations.

4. Request for Relief I4R-17, Part C, ASME Code, Section XI, Examination Category B-K, Items B10.10 and B10.20, Welded Attachments for Vessels, Piping, Pumps, and Valves, DNPS 2 and 3

The descriptions associated with ASME Code, Section XI, Category B-K components, list the ASME Code examination type (integral attachment welds); however, it is not always clear to what actual component the integral attachment is welded, or what system is involved. For request for relief ASME Code, Section XI, Category B-K (integral attachment welds for vessels and piping) please state the actual component and to what system these attachment welds are associated.

Identify the materials of construction for all integral attachment welds in ASME Code, Section XI, Category B-K.

5. Request for Relief I4R-17, Part D, ASME Code, Section XI, Examination Category B-M-1, Item B12.40, Pressure Retaining Welds in Valve Bodies, DNPS 2 and 3

The descriptions associated with request for relief ASME Code, Section XI, Category B-M-1, list the ASME Code examination type (valve body weld); however, it is not always clear to what actual valve and to what system these valves are associated. For request for relief ASME Code, Section XI, Category B-M-1 (valve body welds) please state the actual valve inside diameter (ID) and to what system these valves are associated.

Identify the materials of construction for all valve body welds in ASME Code, Section XI, Category B-M-1.

6. Request for Relief I4R-17, Part E, , ASME Code, Section XI, Examination Category C-B, Item C2.21, Pressure Retaining Nozzle Welds in Class 2 Vessels, DNPS 2 and 3

State the materials of construction and the wall thicknesses for all welds in Examination ASME Code, Section XI, Category C-B.

Confirm that the required surface examinations (liquid penetrant or magnetic particle) were performed for the subject welds, whether these surface examinations were full ASME Code examinations (>90% coverage per Code Case N-460), and describe any indications that were detected.

7. Request for Relief I4R-17, Part F, ASME Code, Section XI, Examination Category C-C, Item C3.20, Integral Attachments for Class 2 Vessels, Piping, Pumps, and Valves, DNPS 2

The description associated with Category C-C component, Item C3.20, lists the ASME examination type (integral attachment weld); however, it is not clear to what actual component the integral attachment is welded, or what system is involved. For request for relief Category C-C, Item C3.20 (integral attachment weld for piping), identify the actual component and to what system this attachment weld is associated.

State the materials of construction for integral attachment Weld 2/2/2304-14/M-1151D-10(IWA).

8. Request for Relief I4R-17, Part G, Examination Category R-A, Items R1.11 and R1.20, Risk Informed Piping Examinations, DNPS 2 and 3

State the materials of construction and the wall thicknesses for all Category R-A welds and base materials.

Confirm whether the examinations listed for all Category R-A welds were conducted in accordance with the performance demonstration requirements of ASME Code, Section XI, Appendix VIII.

Further discuss whether additional or alternative welds could have been examined to augment the reduced volumetric coverage resulting from the limited examinations of the subject welds.

The licensee states ASME Section XI, Code Case N-578-1, Table 1 requirements were implemented for the subject weld volumetric examinations. Provide the reference for a NRC Safety Evaluation, indicating approval, for performing the subject weld examinations under the requirements for an updated RI-ISI program, if any.

Hearing Identifier: NRR_PMDA
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Mail Envelope Properties (Brenda.Mozafari@nrc.gov20140813095200)

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From: Mozafari, Brenda

Created By: Brenda.Mozafari@nrc.gov

Recipients:
"Tate, Travis" <Travis.Tate@nrc.gov>
Tracking Status: None
"Purnell, Blake" <Blake.Purnell@nrc.gov>
Tracking Status: None
"Alley, David" <David.Alley@nrc.gov>
Tracking Status: None
"Rosenberg, Stacey" <Stacey.Rosenberg@nrc.gov>
Tracking Status: None
"Cumblidge, Stephen" <Stephen.Cumblidge@nrc.gov>
Tracking Status: None
"McLellan, Thomas" <Thomas.McLellan@nrc.gov>
Tracking Status: None
"Mitchel.Mathews@exeloncorp.com" <Mitchel.Mathews@exeloncorp.com>
Tracking Status: None

Post Office:

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