

NRR-PMDAPEm Resource

From: Feintuch, Karl
Sent: Sunday, June 17, 2012 10:33 PM
To: 'Jack Gadzala'; 'Craig D Sly'
Subject: ME7378 - Kewaunee - Relief Req RR-G-5-1 to -40 Request for Additional Information (RAI) - second round
Attachments: ME 7378 Kewaunee RAI 2012-06-17-2100 Rev1.docx

DRAFT REQUEST FOR ADDITIONAL INFORMATION
ON THE FOURTH TEN YEAR 10-YEAR INSERVICE INSPECTION INTERVAL
REQUEST FOR RELIEF RR-G-05
DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
DOCKET NUMBER: 50-305

By letter dated September 28, 2011, the licensee, Dominion Energy Kewaunee, Inc. (DEK), submitted Request for Relief (RR) RR-G-05 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 Kewaunee Power Station (KPS). The request for relief applies to the fourth 10-year inservice inspection (ISI) interval, in which the licensee adopted the 1998 Edition through the 2000 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 requests 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 ASME Code, Section XI, 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 KPS.

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.

In a preceding Request for Additional Information (RAI) sent to DEK by email on March 27, 2012 at 2:25 PM, DEK was asked for seven items designated as:

ME7378-RAII-EPNB-McL-2.1-2012-04-27
ME7378-RAII-EPNB-McL-2.2-2012-04-27
ME7378-RAII-EPNB-McL-2.3-2012-04-27
ME7378-RAII-EPNB-McL-2.4-2012-04-27
ME7378-RAII-EPNB-McL-2.5-2012-04-27
ME7378-RAII-EPNB-McL-2.6-2012-04-27
ME7378-RAII-EPNB-McL-2.7-2012-04-27

where the sequential numbers 2.1 through 2.7 corresponded to the Reviewer's numbering provided in his written RAI items (RAII).

The attached RAI asks for an 8th item designated as:

- ME7378-RAII-EPNB-McL-007-2012-07-09

that requests a response by July 9, 2012 (2012-07-09)

To expedite DEK's response the NRC staff requests confirmation that the item is understood and the date of response is confirmed, or that a clarification conference call with NRC staff is needed, by Wednesday June 20, 2012.

Hearing Identifier: NRR_PMDA
Email Number: 394

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From: Feintuch, Karl

Created By: Karl.Feintuch@nrc.gov

Recipients:
"Jack Gadzala" <jack.gadzala@dom.com>
Tracking Status: None
"Craig D Sly" <craig.d.sly@dom.com>
Tracking Status: None

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1.0 SCOPE

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ME7378-RAII-EPNB-McL-2.4-2012-04-27
ME7378-RAII-EPNB-McL-2.5-2012-04-27
ME7378-RAII-EPNB-McL-2.6-2012-04-27
ME7378-RAII-EPNB-McL-2.7-2012-04-27

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2.0 REQUEST FOR ADDITIONAL INFORMATION (RAI)

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.

ME7378-RAII-EPNB-McL-007-2012-07-09

Background

There are two risk informed program methodologies that are generally accepted for use by the NRC; they have been developed by the Electrical Power Research Institute (EPRI) and the Westinghouse Owners Group (WOG) and are documented in Topical Report TR-112657, *Revised Risk-Informed Inservice Inspection Evaluation Procedure, Revision B-A*, and Topical Report WCAP-14572, *Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report, Revision 1-NP-A*, respectively. The two programs use either ASME Code Case N-578-1¹, *Risk-Informed Requirements for Class 1, 2 or 3 Piping, Method B Section XI*, or Code Case N-577¹, *Risk-Informed Requirements for Class 1, 2 or 3 Piping, Method A*, both of which assign a new Examination Category R-A, listing welds, or other elements, according to expected forms of degradation.

The Kewaunee Risk Informed-Inservice Inspection (RI-ISI) program is based on the NRC-approved EPRI Topical Report TR-112657, Rev B-A. The NRC approved the Kewaunee RI-ISI program plan in its safety evaluation dated September 23, 2005 (Agencywide Documents Access & Management System (ADAMS) Accession Number ML052660057)

RAI Item McL-001

To ensure an efficient review and to clarify the Kewaunee RI-ISI program ranking of the subject welds submitted for relief from the ASME Code-required examination coverage, please provide the equivalent ranking of the Kewaunee RI-ISI program that is applicable or equal to that of ASME Code, Item R-A and "damage mechanisms" in the enclosed tables below:

1. ASME Code Cases N-577-1 or N-578-1 are not approved for use in RG-1.147, Revision 16. Licensees base their RI-ISI inspection sample size and examination methodology on Table 1 of ASME Code Case N-577-1 or N-578-1.

Table 2.1.1 – Class 1 and 2 Piping Welds

ASME Category	Code Item	Weld ID	Weld Type	Coverage Obtained	Damage Mechanism	R-A Code Item
B-F	B5.40	PR-W1DM	PZR 6" Nozzle-to-Safe End	68.0%		
B-F	B5.40	PR-W26DM	PZR 6" Nozzle-to-Safe End	37.0%		
B-F	B5.40	RC-W67DM	PZR 14" Nozzle-to-Safe End	26.0%		
B-J	B9.11	PR-W27	6" PZR Relief Circumferential Weld	50.0%		
B-J	B9.11	RC-W60	6" Reactor Coolant Circumferential Weld	50.0%		
B-J	B9.11	SI-W51	6" Safety Injection Circumferential Weld	86.7%		
B-J	B9.11	RHR-W9	8" Residual Heat Removal Circumferential Weld	50.0%		
B-J	B9.11	SI-W74	12" Safety Injection Circumferential Weld	50.0%		
B-J	B9.31	RC-W3BC	8" Reactor Coolant Pipe Branch Connection	27.0%	Withdrawn	
B-J	B9.31	RC-W22BC	6" Reactor Coolant Pipe Branch Connection	50.0%	Withdrawn	
C-F-1	C5.13	ICS-W180	6" Containment Spray Circumferential Weld	50.0%		
C-F-1	C5.13	ICS-W181	6" Containment Spray Circumferential Weld	50.0%		
C-F-1	C5.13	RHR-W419	6" Residual Heat Removal Circumferential Weld	50.0%		
C-F-1	C5.13	ICS-W45	8" Containment Spray Circumferential Weld	50.0%		
C-F-1	C5.14	SI-W429	6" Safety Injection Circumferential Weld	50.0%		
C-F-1	C5.21	SI-W249	3" Safety Injection circumferential Weld	50.0%		
C-F-1	C5.21	AFW-W148	3" Auxiliary Feedwater Circumferential Weld	50.0%		
C-F-1	C5.21	AFW-W151	3" Auxiliary Feedwater Circumferential Weld	50.0%		
C-F-1	C5.21	AFW-W152	3" Auxiliary Feedwater Circumferential Weld	50.0%		
C-F-1	C5.21	AFW-W155	3" Auxiliary Feedwater Circumferential Weld	50.0%		

Table 2.1.1 – Class 1 and 2 Piping Welds

ASME Category	Code Item	Weld ID	Weld Type	Coverage Obtained	Damage Mechanism	R-A Code Item
C-F-2	C5.61	AFW-W156	3" Auxiliary Feedwater Circumferential Weld	68.0%		
C-F-2	C5.61	AFW-W171	3" Auxiliary Feedwater Circumferential Weld	85.0%		
C-F-2	C5.61	AFW-W172	3" Auxiliary Feedwater Circumferential Weld	63.0%		
C-F-2	C5.61	AFW-W178	3" Auxiliary Feedwater Circumferential Weld	83.0%		
C-F-2	C5.61	AFW-W189	3" Auxiliary Feedwater Circumferential Weld	87.0%		
C-F-2	C5.61	AFW-W190	3" Auxiliary Feedwater Circumferential Weld	87.0%		
C-F-2	C5.61	AFW-W191	3" Auxiliary Feedwater Circumferential Weld	85.0%		
C-F-2	C5.61	AFW-W192	3" Auxiliary Feedwater Circumferential Weld	83.0%		
C-F-2	C5.61	AFW-W194	3" Auxiliary Feedwater Circumferential Weld	67.0%	Withdrawn	
C-F-2	C5.61	AFW-W195	3" Auxiliary Feedwater Circumferential Weld	85.0%		
C-F-2	C5.61	AFW-W196	3" Auxiliary Feedwater Circumferential Weld	62.0%	Withdrawn	
C-F-2	C5.61	AFW-W197	3" Auxiliary Feedwater Circumferential Weld	67.0%	Withdrawn	
C-F-2	C5.61	AFW-W198	3" Auxiliary Feedwater Circumferential Weld	62.0%	Withdrawn	