

June 1, 2010

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Serial No.: 10-324  
LR/MWH R0  
Docket No.: 50-305  
License No.: DPR-43

**DOMINION ENERGY KEWAUNEE, INC.**  
**KEWAUNEE POWER STATION**  
**COMPLETION OF KEWAUNEE POWER STATION LICENSE RENEWAL**  
**COMMITMENT 41**

By letter dated July 13, 2009 (Reference 1), the NRC requested additional information regarding the aging management programs and metal fatigue time-limited aging analyses (TLAA) included in the license renewal application (LRA) for Kewaunee Power Station (KPS) (Reference 2). By letter dated August 17, 2009 (Reference 3), Dominion Energy Kewaunee, Inc. (DEK) stated that a final response to RAI B3.2-2 (from Reference 1) would be submitted following re-analysis of locations that were initially evaluated using stress-based fatigue monitoring methods but are also subject to the environmental effects on fatigue usage in accordance with NUREG/CR-6260, "Application of NUREG/CR-5999 Interim Fatigue Curves to Selected Nuclear Power Plant Components." By letter dated February 2, 2010 (Reference 4), DEK provided a final response to RAI B3.2-2. This response consisted of a commitment as follows:

Commitment 41

*"Perform a fatigue analysis of the surge line hot leg nozzle and the charging line nozzle in accordance with ASME B&PV Code Section III, Subsection NB-3200 guidance and determine the CUF [Cumulative Usage Factor], considering the effects of the reactor coolant environment. Confirm that CUF is less than 1.0 at the end of 60 years of plant operation."*

*Schedule: Prior to the Period of Extended Operation.*

During a subsequent discussion, the NRC staff requested that DEK complete the fatigue analysis prior to issuance of the KPS License Renewal safety evaluation report (SER) to allow the NRC to review the analysis results. As a result, DEK agreed to complete the fatigue analysis prior to SER issuance and provide a summary of the analysis methodology and results for NRC review.

Attachment 1 provides the vendor-prepared summary report of the requested fatigue analysis. The analysis results show acceptable fatigue usage for the NUREG/CR-6260 required locations for which stress-based fatigue monitoring methods (EPRI FatiguePro)

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Attachment:

Structural Integrity Associates, Inc. Report No. 0900090.401, Revision 0, "60-Year EAF Analyses Summary Report - Kewaunee Power Station - Charging Nozzle and RCS Hot Leg Surge Nozzle," dated May 2010.

References:

1. Letter from Samuel Hernandez (NRC) to David A. Heacock (DEK), "Request for Additional Information for the Review of the Kewaunee Power Station License Renewal Application – Aging Management Programs (TAC No. MD9408)," dated July 13, 2009. [ADAMS Accession No. ML091810958]
2. Letter from D. A. Christian (DEK) to NRC, "Kewaunee Power Station Application for Renewed Operating License," dated August 12, 2008. [ADAMS Accession No. ML082341020]
3. Letter from Stephen E. Scace (DEK) to NRC, "Response to Request for Additional Information for the Review of the Kewaunee Power Station License Renewal Application – Aging Management Programs," dated August 17, 2009. [ADAMS Accession No. ML092320093]
4. Letter from J. Alan Price (DEK) to NRC, "Response to Request for Additional Information for the Review of the Kewaunee Power Station License Renewal Application – Aging Management Review/Aging Management Programs," dated February 2, 2010. [ADAMS Accession No. ML100331879]

Commitments made in this letter:

None.

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