

August 2, 2012

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

Serial No. 12-489
LIC/JG/R0
Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
REACTOR VESSEL INTERNALS INSPECTION PLAN REVIEW REQUEST
SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

By application dated December 12, 2011 (Reference 1), Dominion Energy Kewaunee, Inc. (DEK), requested approval, pursuant to the provisions of Renewed Operating License DPR-43, of the inspection plan for reactor vessel internal (RVI) components at Kewaunee Power Station (KPS). This inspection plan submittal was to fulfill certain requirements of Renewed Operating License DPR-43, Section 2.C(15)(b); specifically, Commitment Items 1 and 2 of Appendix A of NUREG-1958, "Safety Evaluation Report Related to the Kewaunee Power Station," dated January 2011. The inspection plan was supplemented on June 28, 2012 (Reference 2).

During a telephone conference with DEK personnel on June 25, 2012 (Reference 3), the Nuclear Regulatory Commission (NRC) staff inquired into inspection plans for the guide tube split pins (page 6 of Reference 1, Item LAI-3), based on these components not being categorized as ASME Section XI, Code Items under the current KPS licensing basis. Since the guide tube split pins are not required to be inspected by the ASME Code, the staff requested a description of any inspections that DEK plans on performing for these split pins (which were replaced in 2004), including a discussion of conformance to the NRC safety evaluation of MRP-227 for this item.

Although the guide tube split pins are not categorized as ASME Section XI, Code Items, DEK has historically performed a VT-3 inspection on accessible portions of the split pins when other items of the reactor internals have been inspected for ASME Section XI purposes. DEK believes that guide tube split pin inspections are appropriate and plans to continue performing them. Performance of a VT-3 inspection of accessible portions of the guide split pins is planned concurrent with the upcoming core support structures B-N-3 inspection when the core barrel is removed from the reactor vessel. This is anticipated to occur in either the fall 2013 or spring 2015 refueling outage. This inspection is currently contained in the Inservice Inspection (ISI) Plan for the Third Period of the Fourth Inspection Interval.

The NRC safety evaluation of MRP-227 notes that Westinghouse guide tube support pins (split pins) are made from either 316 stainless steel or Alloy X750. There have

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been issues with cracking of the original Alloy X750 pins and many licensees (including DEK) have replaced them with type 316 stainless steel materials. Licensees are expected to evaluate the adequacy of their existing plant-specific program and ensure that the aging degradation is adequately managed during the extended period of operation for both Alloy X750 and type 316 stainless steel guide tube support pins. The NRC recommended that the evaluation consider the need to replace the Alloy X750 split pins, if applicable, or inspect the replacement type 316 stainless steel split pins to ensure that cracking has been mitigated and that aging degradation is adequately monitored during the extended period of operation.

The original split pins at KPS were fabricated from Alloy X750. The original pins were replaced in 2004 (after 30 years of service) with type 316 stainless steel materials. Evaluations performed by Westinghouse Electric Company conclude that the new type 316 stainless steel replacement split pins are not susceptible to aging degradation through the extended period of operation for KPS. Ongoing inspections of these new pins, conducted since they were installed, have revealed no indications of pin failure.

The vendor recommended inspection practice for these pins is to perform foreign material inspections within the reactor vessel (to search for any pins that may have broken) during refueling outages. KPS comports to this recommendation and performs a foreign material inspection within the reactor vessel during each refueling outage. In addition, as discussed above, DEK intends to perform a VT-3 inspection of accessible portions of the guide split pins concurrent with the upcoming core support structures B-N-3 inspection. DEK has determined that the existing program (foreign material inspection within the reactor vessel during each refueling outage and the planned VT-3 inspections of accessible portions of the guide split pins) is appropriate to ensure that the aging degradation is adequately managed during the extended period of operation for the new type 316 stainless steel guide tube support split pins at KPS. This conclusion is based on the material properties of the new type 316 stainless steel pins, the lack of any failures or degradation identified during inspections, and the total time that these new pins are expected to remain in service,

If you have questions or require additional information, please feel free to contact Mr. Jack Gadzala at 920-388-8604.

Very truly yours,



J. Alan Price
Vice President – Nuclear Engineering

References:

1. Letter from J. Alan Price (DEK) to Document Control Desk (NRC), "Reactor Vessel Internals Inspection Plan Review Request," dated December 12, 2011.
2. Letter from J. Alan Price (DEK) to Document Control Desk (NRC), "Reactor Vessel Internals Inspection Plan Review Request, Supplement and Response to Request for Additional Information," dated June 28, 2012.
3. Email from Karl D. Feintuch (NRC) to Jack Gadzala (DEK), "ME7727 Reactor Vessel Internals Inspection Plan Review - draft record of conference call on 6/25/2012," dated July 9, 2012.

Commitments made by this letter: None

cc: Regional Administrator, Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4352

Mr. Karl D. Feintuch
Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop O8-H4A
11555 Rockville Pike
Rockville, MD 20852-2738

NRC Senior Resident Inspector
Kewaunee Power Station