Dominion Energy Kewaunee, Inc.
[illegible] Dominion Boulevard, Glen Allen, VA 23[illegible]

Dominion

March 26, 2010

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

Serial No.: 10-184
LR/MWH R0
Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION ASSOCIATED WITH THE REVIEW OF THE KEWAUNEE POWER STATION LICENSE RENEWAL APPLICATION

By letter dated March 11, 2010 (reference 1), the NRC provided a request for additional information regarding the aging management review results included in the license renewal application (LRA) for Kewaunee Power Station (KPS) (reference 2). The NRC staff indicated that responses to each request for additional information (RAI) are needed to complete the review of the KPS LRA. Attachment 1 to this letter provides the Dominion Energy Kewaunee, Inc. (DEK) responses to five of the six RAIs submitted by the NRC staff in reference 1.

The response to RAI 3.1.2.2.13-01 requires additional time to develop and will be submitted within 60 days of the date of this letter.

Should you have any questions regarding this submittal, please contact Mr. Paul C. Aitken at (804) 273-2818.

Very truly yours,

Leslie N. Hartz
Vice President – Nuclear Support Services

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and State aforesaid, today by Leslie N. Hartz, who is Vice President – Nuclear Support Services of Dominion Energy Kewaunee, Inc. She has affirmed before me that she is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of her knowledge and belief.

Acknowledged before me this 26th day of March, 2010.

My Commission Expires: 4/30/13

Notary Public

GINGER L. ALLIGOOD
Notary Public
Commonwealth of Virginia
310847
My Commission Expires Apr 30, 2013

Attachment:

1. Responses to RAIs B.2.1.5-07, B.2.1.16-01, B.2.1.29-01, B2.1.30-17, and 3.1.2.2.2.4-02a

References:

1. Letter from John Daily (NRC) to David A. Heacock (DEK), "Request for Additional Information for the Review of the Kewaunee Power Station License Renewal Application (TAC No. MD9408)," dated March 11, 2010.
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]

Commitments made in this letter:

The response to RAI 3.1.2.2.13-01 will be submitted within 60 days of the date of this letter.

cc: U.S. Nuclear Regulatory Commission
Regional Administrator, Region III
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4532

Mr. P. S. Tam, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, Mail Stop O8-H4A
11555 Rockville Pike
Rockville, MD 20852-2738

Mr. Daniel Doyle
Environmental Project Manager
U.S. Nuclear Regulatory Commission
Mail Stop O-11F1
Washington, DC 20555-0001

Mr. John Daily
License Renewal Project Manager
U.S. Nuclear Regulatory Commission
Mail Stop O-11F1
Washington, DC 20555-0001

NRC Senior Resident Inspector
Kewaunee Power Station
N490 Highway 42
Kewaunee, WI 54216

Public Service Commission of Wisconsin
Electric Division
P.O. Box 7854
Madison, WI 53707

David Hardtke
Chairman - Town of Carlton
E2334 Lakeshore Road
Kewaunee, WI 54216

ATTACHMENT 1

RESPONSES TO RAIs B.2.1.5-07, B.2.1.16-01, B.2.1.29-01, B2.1.30-17, and 3.1.2.2.2.4-02a

KEWAUNEE POWER STATION
DOMINION ENERGY KEWAUNEE, INC.

RAI B.2.1.5-07 – Bolting Integrity Program

Background

The applicant stated in LRA Section B2.1.5 that its existing Bolting Integrity Program is consistent, with an enhancement, with GALL AMP XI.M18, "Bolting Integrity." In its response to RAI B2.1.5-5 on September 28, 2009, the applicant stated that it would take an exception to the B2.1.5 Bolting Integrity Program to use only visual inspections to detect the effects of aging on high strength bolting with a diameter greater than one inch whereas GALL AMP XI.M18 recommends volumetric and visual examinations. The applicant justified the exception by stating that the bolting in question is used to provide a connection between the top of the reactor coolant pump support columns and the pump support brackets. The applicant stated that these bolts are hand tightened at each end and are not torqued. The applicant also stated that visual examinations will detect corrosion and conditions indicative of a corrosive environment which is a requirement of SCC in high strength bolting.

Issue

In its response to RAI B2.1.5-5 the applicant took an exception to the recommendation to perform volumetric testing on high strength bolting, noting that SCC is an aging effect requiring management for the reactor coolant pump connecting bolts because of the possibility of residual stresses from the manufacturer for these high strength bolts.

In LRA Table 3.5.2-15, footnote 4, the steam generator footbolts are noted as not being susceptible to SCC and therefore not included in the Bolting Integrity Program. In its response to RAI B2.1.5-5, the applicant did not include justification for why the steam generator footbolts are not susceptible to SCC. The applicant did not include specific information regarding why the footbolts are not subject to a corrosive environment, and have low residual and tensile stresses.

Request

Please provide justification for why the steam generator footbolts are noted in LRA Table 3.5.2-15, footnote 4, as not subject to SCC and why no aging management program is credited to manage the effects of aging on the footbolts.

Additionally, the staff requests that the applicant verify whether it has any high strength structural bolting with a diameter greater than one inch other than those associated with the reactor coolant pump connecting bolts and steam generator footbolts.

DEK Response

The original design of the steam generator lower supports used ultra-high strength low-alloy steel (VASCOMAX 250) footbolts. This footbolt material was later recognized as having a high susceptibility to stress-corrosion cracking (SCC) in this application, which included a high bolt preload. As a result, the steam generator lower supports were re-designed in 2001 when the steam generators were replaced. To improve the reliability of the steam generator supports, the new support design used high strength stainless steel bolts in place of the original footbolts and reduced the preload requirement for the bolting to "snug-tight."

As noted in LRA Table 3.5.2-15, Note 4, the current steam generator support footbolts are fabricated from Carpenter Custom 455® stainless steel material. According to the vendor technical datasheet, this alloy was developed to provide a high strength material with good corrosion resistance to atmospheric environmental conditions. The vendor literature further indicates that the material exhibits good resistance to SCC in testing that included adverse environmental conditions (marine atmospheric conditions, 20% salt spray, and 3½% sodium chloride solution). The steam generator support footbolts are located above the containment floor such that the environment to which they are exposed is the containment atmosphere. The containment atmosphere environment is a dry air environment without significant corrosive contaminants such as chlorides.

In order for SCC to occur, three conditions must exist simultaneously: (1) susceptible material, (2) corrosive environment, and (3) sustained tensile stress. Based on the discussion above, the Carpenter Custom 455® stainless steel material exhibits low susceptibility to SCC, even in adverse environments. As described above, the exposure environment for these bolts is the containment air environment. The containment air environment is a dry-air environment that includes little or no corrosive contaminants such as chlorides. In addition, the design of the steam generator lower support results in low applied tensile stresses in the bolting material, since the support experiences compressive loads under normal operating conditions and there is effectively no preload requirement for the bolts. Therefore, the aging management review for the bolting concluded that SCC was not an aging effect requiring management and no aging management program is required for the steam generator support footbolts.

There are no applications of high strength (greater than 150 ksi yield strength) structural bolting with a diameter of greater than one-inch other than the reactor coolant pump support connecting bolts and steam generator support footbolts.

RAI B.2.1.16-01 – Inspection of Overhead Heavy Load and Refueling Handling Systems

Background

The applicant stated in LRA Section B2.1.16 that its existing Inspection of Overhead Heavy Load and Refueling Handling Systems Program is consistent with GALL AMP XI.M23, "Inspection of Overhead Heavy Load and Light Load (Related to Refueling) Handling Systems." The "scope of program" program element description for GALL AMP XI.M23 states that the program manages the effects of general corrosion on the crane and trolley structural components and the effects of wear on the rails in the rail system. However, the applicant's Overhead Heavy Load and Refueling Handling Systems Program includes visual inspection of the structural bolting associated with structural members for general corrosion and tightness.

Issue

The applicant included visual examination of structural bolting associated with structural members for tightness within the scope of the Overhead Heavy Load and Refueling Handling Systems Program. The GALL Report recommends use of GALL AMP XI.M18, "Bolting Integrity," to manage the effects of aging on structural bolting. GALL AMP XI.M18 recommends volumetric examination for structural bolting larger than one inch with a yield strength greater than 150 ksi, in addition to visual examination.

Request

Please justify how a visual inspection will verify tightness of bolting. Additionally, the staff requests that the applicant verify if this bolting is also managed by its Bolting Integrity Program, and if not, verify whether it conducts volumetric examinations on bolting larger than one inch with a yield strength greater than or equal to 150 ksi.

DEK Response

Visual inspections performed through the *Inspection of Overhead Heavy Load and Refueling Handling Systems* program described in LRA Section B2.1.16 include inspections of the bolting associated with the structural members of cranes for general corrosion and tightness. These inspections can identify loosening of bolting by observation of cracks in the coatings covering the bolts (where applied), visible gaps between bolting and structural members, lack of full thread engagement of nuts, and excessive flexing of structural members. Two representative examples of plant-specific operating experience are provided in LRA Section B2.1.16, **Operating Experience.** In both cases the loosened bolting was visually identified and corrected prior to the loss of the intended function of the crane.

The bolting associated with the structural members of cranes is not within the scope of the *Bolting Integrity* program described in LRA Section B2.1.5.

There is no bolting associated with the structural members of cranes that is greater than or equal to one-inch diameter and with a specified yield strength of greater than 150 ksi.

RAI B.2.1.29-01 – Selective Leaching of Materials

Background

The applicant stated in LRA Section B2.1.29 that its new Selective Leaching of Materials Program is consistent with GALL AMP XI.M33, "Selective Leaching of Materials." The "scope of program," "preventive actions," "parameters monitored or inspected," and "detection of aging effects," elements of GALL AMP XI.M33 include a one-time visual inspection and hardness measurement of a selected set of sample components to determine whether loss of material due to selective leaching is not occurring for the period of extended operation. The "detection of aging effects" program element of GALL AMP XI.M33 furthers clarifies that Brinell Hardness Testing on the inside of a selected set of components is an acceptable method of determining if selective leaching has occurred. The LRA AMP also credits use of qualitative examination, such as resonance when struck by another object, scraping, or chipping, as appropriate, to determine if loss of material due to selective leaching has occurred; which is beyond the hardness measurement recommended by the GALL Report. The GALL AMP does not include a discussion regarding the use of qualitative examinations to determine whether the loss of material due to selective leaching has occurred.

Issue

The LRA AMP credits performance of a one-time visual inspection and a hardness test or qualitative examination, such as resonance when struck by another object, scraping, or chipping, as appropriate, to determine whether the aging effect of loss of material due to selective leaching has occurred, while the GALL AMP recommends performance of a one-time visual inspection and a hardness measurement.

Request

Please provide justification for why the qualitative examination methodologies credited in the LRA AMP are acceptable alternative to performing a hardness measurement as recommended by the GALL Report.

Please also revise the LRA AMP to reflect that inclusion of a qualitative examination, such as resonance when struck by another object, scraping, or chipping, is an exception to the GALL AMP.

DEK Response

LRA Appendix B, Section B2.1.29, *Selective Leaching of Materials*, is supplemented to add an exception to NUREG-1801, *Generic Aging Lessons Learned (GALL) Report*, Section XI.M33, "Selective Leaching of Materials," as follows:

Exception 1: Use of Alternate Examination Methods

A qualitative determination of selective leaching by other metallurgical methods may be used in lieu of hardness testing for components within the scope of this program.

Justification

NUREG-1801, Section XI.M33, recommends a one-time visual inspection and hardness measurement of a selected set of sample components to determine whether loss of material due to selective leaching is occurring during the period of extended operation. Visual inspection and hardness measurement will be used where feasible. However, hardness testing may not be feasible or practical for some components due to form, configuration, or location (e.g., heat exchanger tubes). Other available detection methods, such as resonance when struck by another object, or mechanical scraping or chipping, will provide an effective alternate method for identification of selective leaching.

A combination of visual inspections in conjunction with the mechanical methods will result in the detection of selective leaching, if present. The visual inspection is capable of detecting loss of material while the mechanical methods of resonance when struck by another object or mechanical scraping or chipping are capable of detecting a corroded or weakened component structure.

Program Elements Affected

Element 4: Detection of Aging Effects

NUREG-1801, Section XI.M33, identifies that one acceptable detection method is to visually inspect susceptible components closely and conduct Brinell Hardness testing on the inside surfaces of the selected set of components to determine if selective leaching has occurred. Visual inspection and hardness measurement will be used where feasible. However, hardness testing may not be feasible or practical for some components due to form, configuration, or location (e.g., heat exchanger tubes). Other available detection methods, such as resonance when struck by another object, or mechanical scraping or chipping, will provide an effective alternate method for identification of selective leaching. A combination of visual inspections in conjunction with the mechanical methods will result in the detection of selective leaching, if present.

RAI B2.1.30-17 – Kewaunee Steam Generator Tube Integrity

Background

By letter dated July 13, 2009, the staff issued several RAIs (B2.1.30-1 through B2.1.30-13) about the steam generator tube integrity aging management program requesting the applicant to solve numerous inconsistencies the staff identified between the applicant's program and its implementing documents and industry guidance documents.

The applicant responded to these RAIs in its letter dated August 17, 2009. The staff reviewed the applicant's answers.

Issue

However, for some of these RAIs (B2.1.30-2, B2.1.30-3, B2.1.30-5, B2.1.30-7, B2.1.30-11, and B2.1.30-12), the staff finds the applicant's response inadequate, mainly because the staff could not verify that the modifications to be made to the procedure and/or implementing documents will be consistent with the GALL AMP XI.M19.

Request

Confirm that the modifications you will implement through your Corrective Action Program in your different documents in a way that elements one through six of your Steam Generator Tube Integrity Program will be consistent with the corresponding program elements of GALL AMP XI.M19 before entering in the period of extended operation for RAIs B2.1.30-2, B2.1.30-3, B2.1.30-5, B2.1.30-7, B2.1.30-11, and B2.1.30-12.

DEK Response

The modifications to the Steam Generator Tube Integrity program and associated implementing documents discussed in the responses to RAIs B2.1.30-2, B2.1.30-3, B2.1.30-5, B2.1.30-7, B2.1.30-11, and B2.1.30-12 have been completed. No changes to LRA Section B2.1.30, *Steam Generator Tube Integrity* are required and the program remains consistent with NUREG-1801, *Generic Aging Lessons Learned (GALL) Report*, Section XI.M19, "Steam Generator Tube Integrity."

RAI 3.1.2.2.2.4-02a – Kewaunee - Follow up to RAI 3.1.2.2.2.4-2

Background

By letter dated November 20, 2009, the staff issued RAI 3.1.2.2.2.4-2 requesting the applicant to describe the inspections that will be performed on the "transition weld" during the renewed license period. The transition weld is the new field weld generated by the cut made in the transition cone at the time of steam generator replacement.

In its response dated December 28, 2009, the applicant stated that a radiography examination (in accordance with the requirements of ASME Code, Section III) was performed on this weld at the time of SG replacement, with no indications identified that exceed the acceptance criteria of ASME Code, Section III. The applicant further stated that the transition weld does not require volumetric examination in accordance with ASME, Section XI inservice inspection requirements, because it is not located at a gross structural discontinuity, as defined in the ASME Code, and is located a sufficient distance from the structural discontinuity at the transition cone-to-upper shell junction such that the resulting elevated stresses at that junction do not affect the transition weld area. The applicant identified that the transition weld does receive a VT-2 visual examination as part of the system pressure test in accordance with ASME Code, Section XI IWC 2500-1, Examination Category C-H requirements.

SRP-LR Section 3.1.2.2.2.4 and GALL AMR Item 3.1.1-16 identify that the loss of material due to general, pitting, and crevice corrosion can occur in steel PWR steam generator SG upper shell-to and lower shell-to transition cone welds that are exposed to a secondary feedwater or steam environment, and that the existing program relies on control of chemistry to mitigate corrosion and Inservice Inspection (ISI) to detect loss of material. SRP-LR Section 3.1.2.2.2.4 further states that the extent and schedule of the existing steam generator inspections are designed to ensure that flaws cannot attain a depth sufficient to threaten the integrity of the welds.

Issue

The staff has observed that AMR Item 3.1.1-16 was included in the GALL Report to ensure that volumetric examinations performed in accordance with the requirements of ASME Code Section XI IWC-2500-1, Examination Category C-A, Inspection Item C1.10 for upper shell-to and lower shell-to transition cones with gross structural discontinuities would be capable of managing loss of material due to general, pitting, and crevice corrosion in the welds. The staff has observed that the new continuous circumferential weld in the Kewaunee SG transition cone design should not be aligned to the intent of GALL AMR Item 3.1.1-16 because the intent of this GALL item was to address problems in the SG transition cone welds containing geometric discontinuities, and the new SG transition cone weld does not meet this design description. However, the new transition area weld is a field-weld as opposed to having been made in a controlled manufacturing facility, and the surface conditions of the transition weld may result in

flow conditions more conducive to initiation of general, pitting, and crevice corrosion than those of the upper and lower transition cone welds.

According to SRP-LR Section A.1.2.3.4, a program based solely on detecting structure and component failure should not be considered as an effective aging management program for license renewal, as would be the case using detection of leakage as the aging management for the transition weld. Thus, the staff considers the crediting of the ISI program for the new SG transition cone weld to be an ineffective basis for managing loss of material in this weld, as the ISI criteria would only perform a VT-2 visual leakage examination of the weld as part of the system leakage test performed pursuant to ASME Section XI, Table IWC 2500-1, Examination Category C-H requirements and because this type of examination would allow leakage to occur before appropriate corrective actions would be initiated on the weld. In addition, ASME Section XI IWA-5242 does not require licensees to remove insulation when performing visual examination on non-borated treated water systems. As a result, the staff finds the applicant's response to RAI 3.1.2.2.2.4-2 does not currently resolve the request in the RAI.

Request

Since the surface conditions of the transition weld may result in flow conditions more conducive to initiation of general, pitting, and crevice corrosion than those of the upper and lower transition cone welds, describe the surface condition and the resultant flow near the transition weld (e.g., weld crown, ground flush, etc.) and how these parameters could affect the susceptibility of this weld to these aging mechanisms, relative to that of the upper and lower transition welds. Based on this information, justify if any additional aging management of the transition weld is necessary. If additional aging management is necessary, describe an aging management program of the SG transition weld (including examination frequency and technique) that will be effective in managing an aging effect such as the loss of material due to general, pitting, and crevice corrosion during the period of extended operation.

DEK Response

As described in the response to RAI 3.1.2.2.2.4-2 (DEK letter 09-760 dated December 28, 2009 [ADAMS ML100110061]), a new circumferential transition cone closure weld was made necessary by the cut made in the transition cone at the time of steam generator replacement. Although the transition cone closure was field-welded, there were controls in place to ensure a high-quality weld. These controls included welder qualifications, welding in accordance with a qualified and approved welding procedure, pre- and post-weld heat treatment in accordance with engineering specifications, and non-destructive examinations of the weld. The weld is a double V-groove configuration and was welded from the inside and outside of the steam generator. The weld was left in the 'as-welded' condition since inservice volumetric examination of this weld is not required by ASME B&PV Code, Section XI, Subsection IWC (as described in the response to RAI 3.1.2.2.2.4-2). The applicable design code (ASME B&PV Code,

Section III-1987 addenda) for the replacement steam generators required a maximum 7/32-inch reinforcement for the transition cone closure weld in accordance with paragraph NB-4426.1. The ASME Code allowed the weld to be left as-welded. However, a suitable weld contour was also necessary to allow performance of the required radiographic non-destructive examination. As such, the ASME Code limits on projection from the surrounding surface (7/32-inch) and the contour necessary to support NDE resulted in a weld profile that is not expected to cause significant flow disturbance or other fluid conditions that may increase susceptibility to general, pitting, and crevice corrosion in the area of the weld.

It is also important to note that the ASME B&PV Code, Section III, requirements for fabricating and examining this weld are identical whether the weld is made in the shop or the field. An ASME Code-quality weld must be made in either instance. The extent to which a shop or field weld exceeds Code quality requirements will vary. It is feasible, given modern welding consumables, welding equipment, and inspection procedures, that the transition cone closure field weld may be of superior quality to a similar shop weld made during original construction.

As a result of industry operating experience related to cracking of Westinghouse steam generator transition cone-to-upper shell welds, the Electric Power Research Institute (EPRI) issued Technical Report TR-103498, *Review of Steam Generator Girth Weld Cracking*. This technical report documents the results of an industry study to determine the causes of weld cracking at the geometric discontinuity between the transition cone and upper shell. The cracking was attributed to:

(1) Enhanced material susceptibility due to post-weld heat treatment (PWHT) at too low of a temperature (<1100 °F),

(2) The presence of high stresses due to fabrication, inadequate PWHT, stress intensification associated with the geometry of the weld joint, and local stress risers, and

(3) Oxidizing conditions in the region of the girth weld, which can lead to pitting that was identified as a precursor to observed girth weld cracking.

In contrast to these contributing factors, the new Kewaunee steam generator transition cone closure welds are not located at the geometric discontinuity between the transition cone and upper shell. Rather, the closure weld is an in-plane weld between plates of equal thickness. The PWHT for this weld was performed at greater than 1100 °F, in accordance with ASME Code requirements, and above the temperature range identified in EPRI TR-103498 to contribute to weld cracking (i.e., less than 1100 °F). Based on adequate PWHT and the geometry of the weld, high residual stresses are not expected in the steam generator transition cone closure weld.

In addition, Kewaunee secondary water chemistry controls (described in LRA Section B2.1.28, *Secondary Water Chemistry*) during normal operation and shutdown (lay-up) conditions minimize exposure of this weld to oxidizing conditions such that significant

general, pitting, and crevice corrosion is not expected. As an indication of the effectiveness of secondary water chemistry controls, the results of a surface examination (magnetic particle test [MT]) of the original steam generator transition cone-to-upper shell girth welds that was performed during steam generator replacement in 2001 (after 27 years of service) identified no reportable indications on the inside surface of the weld.

The generation of a new steam generator transition cone closure weld is not unique to the Kewaunee replacement steam generators, and has been employed for other steam generator replacement projects in the industry. Field-welded transition cone closure welds (similar to the Kewaunee welds) have been in service for up to approximately 30 years with no reported operating experience to indicate that the welds have an increased susceptibility to general, pitting, and crevice corrosion. ASME B&PV Code, Section XI, requirements for weld examinations have not been changed to require additional or more rigorous inspection of these welds. In addition, there are no current industry issues that might require additional inspections of inside surface conditions in the vicinity of the transition cone closure welds.

The steam generator transition cone closure weld is included with the subcomponent Shell – Upper, Lower and Transition Cone identified in LRA Table 3.1.2-4, along with the other steam generator welds associated with the upper and lower shell and the transition cone. This subcomponent group is consistent with Item IV.D1-12 in NUREG-1801, Table IV.D1 "Steam Generator – Recirculating" in terms of materials, environment, aging effect, and aging management program. Consistent with the recommendations of NUREG-1801, the aging management programs identified for these components in LRA Table 3.1.2-4 are the *Secondary Water Chemistry* and the *ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD* programs. Also consistent with NUREG-1801, LRA Section 3.1.2.2.2.4 discusses plant-specific information related to additional inspections for the steam generator transition cone-to-upper shell girth welds. This information is associated with issues identified in NRC IN 90-04, "Cracking of Upper Shell-To-Transition Cone Girth Welds in Steam Generators."

Loss of material due to general, pitting, and crevice corrosion of the steam generator upper and lower shell and transition cone, including welds, is not expected based on the water chemistry controls in place in accordance with the *Secondary Water Chemistry* program. The inspections performed in accordance with the *ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD* program ensure the absence of aging effects by examining the most likely locations for degradation. In accordance with ASME B&PV Code, Section XI, requirements, the highly stressed welds located at geometric discontinuities, such as the shell-to-tubesheet, transition cone-to-shell, and shell-to-dome junctions, are subject to volumetric examination. Degradation identified during these inspections requires an engineering evaluation for disposition. Corrective actions would include evaluation of the extent of the condition, evaluation of necessary repairs, the need for expansion of inspection scope, and the need for enhancements to secondary water chemistry controls.

Based on the above, no additional aging management is necessary to provide reasonable assurance that the function of the steam generator transition cone closure weld will be maintained for the period of extended operation.