Dominion Energy Kewaunee, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060

Dominion®

January 21, 2010

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

Serial No.: 10-008
LR/MWH R0
Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE KEWAUNEE POWER STATION LICENSE RENEWAL APPLICATION-AGING MANAGEMENT REVIEW/AGING MANAGEMENT PROGRAM

By letter dated December 16, 2009 (Reference 1), the NRC provided a request for additional information regarding the license renewal application (LRA) for Kewaunee Power Station (KPS) (Reference 2). The NRC staff indicated that responses to each request for additional information (RAIs) are needed to complete the review of the KPS LRA. Attachment 1 to this letter provides the Dominion Energy Kewaunee Inc. (DEK) responses to each of the RAIs submitted by the NRC staff in Reference 1. In a telephone call, the NRC indicated that RAI 3.4.2.3-1 in Reference 1 should be re-numbered to 3.4.2.3-3 to avoid duplication of RAI numbers. The correct numbering is reflected in Attachment 1.

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 21st day of January, 2010.

My Commission Expires: 4/30/13

Notary Public

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

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 Review/Aging Management Program (TAC No. MD9408)," dated December 16, 2009. [ADAMS Accession No. ML093310443]
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 John Daily (NRC) to DEK, "Summary of Discussion on January 11, 2010, Between Dominion Energy Kewaunee, Inc. and the U.S. Nuclear Regulatory Commission to Discuss Duplicate RAI Number (TAC No. MD9408)," dated January 13, 2010.

Attachments:

1. Response to Request for Additional Information Regarding the Kewaunee Power Station License Renewal Application

Commitments made in this letter:

1. License Renewal Commitment 40 will be added to LRA Table A6.0-1 consistent with the response to RAI B2.1.8-3a. The new commitment is proposed to support approval of the renewed operating license, and may change during the NRC review period.

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

Ms. V. Perin
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

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING THE KEWAUNEE POWER STATION LICENSE RENEWAL APPLICATION

KEWAUNEE POWER STATION
DOMINION ENERGY KEWAUNEE, INC.

RAI 3.1.2.3-1

Background

LRA Tables 3.1.2-1, 3.1.2-3 and 3.1.2-4 contain items which address the exterior surfaces of steel components exposed to uncontrolled indoor air. The applicant proposes that there is no aging effect associated with this combination of material and environment and that no AMP is required. The applicant proposes that for the component, material and environment combination listed the aging effect being considered is not included in the GALL Report (Generic Note H).

Issue

In its review of these items, the staff noted that "air-indoor uncontrolled" is defined in the GALL Report as an environment where "condensation can occur, but only rarely". The staff also notes that, contrary to Note 4 of the application, the components under consideration may routinely have temperatures above 212°F (during operation) and at much lower temperatures approaching ambient (during outages). The staff further notes that in all cases the GALL Report recommends that the aging effect "Loss of Material" be considered when steel is exposed to uncontrolled indoor air.

Request

Please select an AMP appropriate for the management of steel components exposed to uncontrolled indoor air as recommended by the GALL Report.

DEK Response

The items referred to from LRA Tables 3.1.2-1, 3.1.2-3, and 3.1.2-4 are subcomponents that comprise the reactor vessel, pressurizer, and steam generator, respectively.

Chapter IV of NUREG-1801, *Generic Aging Lessons Learned (GALL) Report*, identifies aging effects for components of the reactor vessel, pressurizer, and steam generator, but does not identify any aging effects for steel exposed to an air-indoor uncontrolled environment. NUREG-1801, page IX-14, defines the air-indoor uncontrolled environment as: *Indoor air on systems with temperatures higher than the dew point, i.e., condensation can occur but only rarely, equipment surfaces are normally dry.*

During the 18 month power operation cycle, Kewaunee normally operates at full power where the external surface temperature of the reactor vessel, pressurizer, and steam generator is greater than the dewpoint of the surrounding air environment. This high operating temperature precludes condensation from occurring on the component surfaces. During the short duration refueling outages (typically one month or less) scheduled each 18 months, the external surfaces of these components are cooled to ambient temperature and may be reduced below the dewpoint temperature of the local environment. However, significant condensation is not expected to occur since the component external surfaces are insulated. In addition, any moisture that may be

present on the component surface is eliminated when the surface temperature increases upon plant startup.

Therefore, based on the short period of time that the external surfaces of these components are potentially exposed to moisture due to condensation, significant corrosion is not anticipated. The loss of material aging effect was determined not to be applicable and an aging management program is not required for these subcomponents.

RAI 3.4.2.3-3

Background

LRA Table 3.4.2-1 contains items which address the interior surfaces of steel components exposed to hydraulic oil. The applicant proposes that there is no aging effect associated with this combination of material and environment and that no AMP is required. The applicant proposes that for the component, material and environment combination listed the aging effect being considered is not included in the GALL Report (Generic Note H).

Issue

In its review of these items, the staff noted that for the material/environment combinations of steel and fuel oil as well as steel and lubricating oil, the GALL Report recommends the consideration of the aging effect "loss of material". In each case the GALL Report recommends recommendations in the GALL Report, the staff must also consider that loss of material for steel components exposed to hydraulic oil may be possible.

Request

Please select an AMP appropriate for the management of aging in steel components exposed to hydraulic oil or to justify why aging of steel components in hydraulic oil is not possible.

DEK Response

As indicated in the definition of the lubricating oil environment in NUREG-1801, *Generic Aging Lessons Learned (GALL) Report*, Section IX.D, "Selected Definitions & Use of Terms for Describing and Standardizing - ENVIRONMENTS": "*...Piping, piping components, and piping elements, whether copper, stainless steel, or steel, when exposed to lubricating oil that does not have water pooling, will have limited susceptibility to aging degradation, due to general or localized corrosion.*"

Water pooling is not expected to occur in the electro-hydraulic control (EHC) system due to the high standards for fluid quality in this system. However, as a conservative measure, in response to RAI 3.4.2.3.1-1 in DEK letter 09-587 dated September 28, 2009 [ADAMS Accession No. ML092720184], loss of material has been included as an applicable aging effect for the EHC reservoir, since this component would be the most likely location for water to separate from the hydraulic fluid and result in water pooling. As further stated in the response to RAI 3.4.2.3.1-1, loss of material for the EHC reservoir will be managed with the *Lubricating Oil Analysis* program, which is confirmed to be effective by the *One-Time Inspections* program through the *Work Control Process* program. The *Lubricating Oil Analysis* program performs monthly sampling of the EHC

fluid to ensure fluid chemistry parameters (e.g., water content, particulate count, chloride content, etc.) are maintained within required limits.

A review of plant-specific operating experience did not identify any evidence of corrosion occurring in components, including steel components, in the hydraulic oil (EHC fluid) environment. Also, a review of monthly EHC fluid sample results from 2001 through 2009 indicated that water content is typically within the limit of 0.10% by volume, with a limited number of samples as high as 0.14%. Based on the lack of identified degradation in this environment and the low limit established for water content, no aging effects were identified for steel EHC system components in a hydraulic oil environment.

RAI 3.5.2.3-7

Background

LRA Table 3.5.2-9 contains items which address steel sheet pile exposed to soil. The applicant proposes that there is no aging effect associated with this combination of material and environment and that no AMP is required. The applicant proposes that for the component, material and environment combination listed the aging effect being considered is not included in the GALL Report (Generic Note H).

Issue

In its review of these items, the staff noted that for the material/environment combinations of steel and soil, the GALL Report recommends the consideration of the aging effect "loss of material." Based on the information provided, it is not clear to the staff why steel sheet pile exposed to soil as part of the plant's discharge structure would not experience loss of material due to corrosion.

Request

Please select an AMP appropriate for the management of aging in steel sheet pile exposed to soil.

DEK Response

LRA Table 3.5.2-9, Structures and Component Supports - Discharge Structure - Aging Management Evaluation, includes the aging management review results for steel sheet pile in the structural member "Structural Steel (sheet piling)." As indicated in the table, the steel sheet pile was evaluated in air-outdoor, raw water, and soil environments.

The Loss of Material aging effect was identified as requiring management for the sheet pile in air-outdoor and raw water environments, and is managed by the *Structures Monitoring Program*. These environments are applicable to the portion of the steel sheet pile at the air-soil interface on the shore side of the sheet piling, and at the air-water interface and the soil-water interface on the lake side, where there is the greatest potential for corrosion of the steel sheet pile.

The soil environment is applicable to the portion of the steel sheet pile that is driven into undisturbed soil. In this environment, the steel sheet pile is not significantly affected by corrosion based on the conclusions documented in NUREG-1557, *Summary of Technical Information and Agreements from Nuclear Management and Resources Council Industry Reports Addressing License Renewal*, and EPRI TR-103842, Revision 1, *Class I Structures License Renewal Industry Report*. Based on test results evaluated in EPRI TR-103842, for an exposure time varying from 7 to 50 years, the type and amount of corrosion observed on steel piles is not sufficient to significantly affect the strength of the steel piles as load bearing structures, regardless of the soil

characteristics and properties, due to the oxygen-deficient environment associated with the undisturbed soil.

Therefore, loss of material is not an applicable aging effect for the steel sheet piling exposed to a soil environment, and no aging management program is required. Inspections performed as part of the *Structures Monitoring Program* for the portion of the sheet pile exposed to raw water and air-outdoor environments provide a leading indication of corrosion at these more aggressive locations. If loss of material is identified at these locations, the condition is documented in the Corrective Action Program for evaluation and implementation of necessary corrective actions. As part of the extent of condition evaluation, the need for inspection of steel sheet pile below the soil surface would be evaluated.

RAI 3.3.2.3-4

Background

LRA Table 3.3.2-8 contains items which address loss of strength/hydrolysis from the exterior surfaces of non metallic filters and regulators exposed to dry air. The applicant proposes to manage this aging through the use of its Work Control Process (LRA AMP B2.1.32). The applicant proposes that for the component, material and environment combination listed, the aging effect being considered is not included in the GALL Report (Generic Note H).

Issue

In its review of these items, the staff noted that the aging effect identified by the applicant is applicable for this combination of component, material, and environment. The staff also noted that the LRA AMP specifically addresses paper filter elements used in the compressed air system. The staff concurs with the applicant's assertion that visual inspection, as included in the Work Control Process AMP, is sufficient to manage aging of these filters. The staff also notes, however, that the entry in Table 3.3.2-8 includes both filters and regulators and that the material is listed as "Non Metallic" rather than paper. While the staff suspects that this item refers only to paper filters, it could also refer to some unidentified non metallic material contained in either a filter or a regulator. Additionally, the staff noted that, with the exception of elastomeric materials, the scope of the Work Control Process is limited to the internal surfaces of components. This appears to be in conflict with the component under consideration as the environment is specified to be external. The staff assumes, but cannot confirm that the applicant is referring to the external surface of the filter but that the filter is contained in another, larger, enclosure which actually makes the external surface of the filter an internal surface of the filter assembly.

Request

Please a) confirm that this item refers to only paper filters; b) if necessary, define the other materials and components included in this item; c) if necessary, justify the use of the Work Control Process AMP for these materials and components; d) confirm that the Work Control Process is used for this component because the external surface of the filter is an internal surface or a larger assembly; and, e) if necessary, justify the use of the Work Control Process for external surfaces.

DEK Response

The entry in LRA Table 3.3.2-8 for non-metallic material refers only to the paper (cellulose) filter element of the Filter/Regulators component type. The filter element is

located internally to the filter/regulator assembly. The Internal Surfaces Monitoring inspections of the Work Control Process program, described in DEK letter 09-597 dated September 25, 2009 [ADAMS ML092710045], is used to manage aging effects for the filter element because filter/regulator assembly must be disassembled to inspect the paper filter element.

RAI 3.3.2.3-5

Background

LRA Tables 3.3.2-6 and 3.3.2-20 contain items which address loss of material due to MIC from the internal surfaces of stainless steel piping, piping components, and piping elements exposed to raw water. The applicant proposes to manage this aging through the use of its Work Control Process (LRA AMP B2.1.32) or its Open Cycle Cooling Water System (LRA B2.1.23) AMPs. The applicant proposes that for the component, material and environment combination listed, the aging effect being considered is not included in the GALL Report (Generic Note H).

Issue

In its review of these items, the staff noted that in the majority, but not all instances, the applicant states that the AMP "Open Cycle Cooling Water" is used for safety-related systems and the AMP "Work Control Process" is used for nonsafety-related systems. The staff also noted that MIC is only one of the appropriate corrosion mechanisms which could lead to loss of material in stainless steel piping exposed to raw water. Irrespective of the corrosion mechanism leading to the loss of material, the staff has no objection to the use of the Open Cycle Cooling Water AMP for systems to which Generic Letter 89-13 applies (safety systems) because this is the AMP recommended by the GALL Report. Also, irrespective of the corrosion mechanism leading to the loss of material, the staff has no objection to the use of the Work Control Process AMP for nonsafety systems because this AMP contains procedures for visual inspection of the interiors of pipes which are appropriate for the detection of loss of material due to exposure to raw water. However, it is not clear to the staff that this distinction will be met in all cases. It is also not clear to the staff whether the applicant is inferring that MIC is the only corrosion mechanism which is possible in this case or whether the applicant is using these items in conjunctions with other AMR items such as 3.3-1 ID 78 and/or 79.

Request

Please confirm that the Open Cycle Cooling Water AMP will be used for all safety-related systems and that the Work Control Process AMP will be used only for nonsafety-related systems.

DEK Response

The Open Cycle Cooling Water program manages applicable aging effects for safety-related component types in LRA Tables 3.3.2-6 and 3.3.2-20. The Work Control Process program manages applicable aging effects only for non-safety-related component types in LRA Tables 3.3.2-6 and 3.3.2-20.

RAI 3.3.2.3-8

Background

LRA Table 3.3.2-8 contains items which address loss of material due to general and pitting corrosion from the internal surfaces of steel piping, piping components, and piping elements exposed to moist air. The applicant proposes to manage this aging through the use of its Work Control Process (LRA AMP B2.1.32). The applicant proposes that for the component, material and environment combination listed, the aging effect being considered is not included in the GALL Report (Generic Note H).

Issue

In its review of these items, the staff noted that the aging effect identified by the applicant is applicable for this combination of component, material, and environment. The staff also noted that in its original application, the applicant included these components in LRA Table 3.3.1, item 3.3.1-53 using Generic Note E. The staff further noted that, for SRP Table 3.3-1 ID 53, the GALL Report recommends the use of the Compressed Air Monitoring AMP. The staff finally noted that the components under consideration are included in the station and instrument air system. The staff acknowledges that both the Compressed Air Monitoring AMP recommended by the GALL Report and the Work Control Process AMP as proposed by the applicant contain inspection procedures appropriate for the detection of loss of material due to corrosion on the internal surfaces of piping. The staff notes, however, that the Compressed Air Monitoring program contains many aspects in addition to piping inspections to manage aging. Given the additional aging management controls contained in the Compressed Air Monitoring program, it is not clear to the staff that the aging of these compressed air components can be adequately managed solely through the visual inspections contained in the Work Control Process program.

Request

Please justify the use of the Work Control Process AMP for compressed air system components or adopt an AMP containing all aspects of the Compressed Air Monitoring AMP recommended by the GALL Report.

DEK Response

The component type "Traps" in LRA Table 3.3.2-8 are the Station and Instrument Air System steel components exposed to a moist air environment with aging effects managed by the *Work Control Process* program. As shown on license renewal drawing LRM-213-1 (at coordinates B-2, E-2, and H-2 indicated by "T"), the traps allow water from the instrument air compressor moisture separators and air receivers to drain to the floor drains. The traps provide a drain path for condensed moisture and do not provide a compressed air flowpath to system components. Maintaining compressed air quality

is not required for this portion of the system. Therefore, additional aging management controls and inspections contained in the *Compressed Air Monitoring* program are not applicable and the visual internal inspections performed by the *Work Control Process* program are adequate to manage loss of material for the traps.

RAI B2.1.8-3a

Background

In its review, the staff noted that the applicant's program did not specify a monitoring frequency for nitrate levels in the component cooling water system, which utilizes a nitrite/molybdate corrosion control program. Energy Power Research Institute (EPRI) Report 1007820, Revision 1 specifies that nitrate levels for such systems be monitored on a monthly basis for both Tier 1 and Tier 2 systems. Consequently, the staff requested in RAI B2.1.8-3 dated July 13, 2009, that the applicant provide a justification for not performing monthly monitoring of the nitrate levels in the closed cooling water system.

In its response dated August 17, 2009, the applicant stated that, as an alternative to monthly monitoring of nitrate levels, nitrite levels are monitored on a monthly basis and ammonia levels on a quarterly basis. The applicant also stated that these monitoring activities verify chemistry stability and verify that unacceptable levels of nitrates, which would be produced by nitrifying bacteria, are not present in the closed-cycle cooling water system.

Issue

The staff notes that, in nitrite-treated systems, nitrates are produced by nitrifying bacteria while ammonia is produced by denitrifying bacteria. Either or both of these bacteria types may be present in a closed water system, and the absence of one type does not necessarily indicate the absence of the other. Thus the periodic sampling for ammonia may be used to verify the absence or control of denitrifying bacteria, but it provides no assurance that nitrifying bacteria are not present. For this reason, EPRI 1007820 recommends monitoring for both nitrates and ammonia on a monthly basis for Tier 1 and 2 systems.

Request

Indicate how current monitoring procedures provide assurance that excessive levels of nitrifying bacteria are not present in the closed water system.

DEK Response

EPRI TR-1007820, *Closed Cooling Water Chemistry Guideline*, Revision 1 has been reviewed and it has been determined that monitoring for nitrates through the Closed-Cycle Cooling Water System program would provide improved ability to identify the presence of nitrifying bacteria in the Component Cooling System. As a result, nitrate monitoring will be implemented on a frequency consistent with the existing monitoring for ammonia.

The following commitment will be added to LRA Appendix A, USAR Supplement, Table A6.0-1:

Item	Commitment	Source	Schedule
40	Implement nitrate monitoring for the Component Cooling System on a frequency consistent with the existing monitoring for ammonia.	Letter 10-008 Response to RAI B2.1.8-3a	Prior to the Period of Extended Operation

RAI 3.5.2.3-6a

Background

By letter dated Oct 13, 2009, the staff issued RAI 3.5.2.3-6 requesting that the applicant identify the specific material under consideration and justify why this material is not subject to aging under the conditions being considered.

The applicant responded by letter dated Nov 13, 2009. In that response the applicant addressed potential aging effects on both the internal and external surfaces of each of the non-metallic materials under consideration.

The applicant stated that the non-metallic material in LRA Table 3.5.2-12 which has no aging effect is fiberglass. The external surfaces of this material are exposed to uncontrolled indoor air. The internal surfaces of this material are exposed to raw water. The applicant also stated that this material is not exposed to ultraviolet radiation, ozone, or high voltage current which could result in loss of strength. The applicant conducted an operating experience search for this combination of material and environments and failed to find any instances of aging for either the internal or external environment. The results of this search are consistent with the staff's knowledge of this material and the external environment.

Issue

The staff's assessment of the interaction between raw water and fiberglass differs from that proposed by the applicant. The staff is aware that fiberglass may undergo significant blistering as a result of exposure to water. This is particularly true in fiberglass boats. Blistering can become sufficiently severe to result in structural degradation of the material. Given the fact that fiberglass boats blister, the staff finds it difficult to accept the concept that, for the component under consideration, no aging exists.

Request

Please propose an AMP for fiberglass exposed to water or to justify why the fiberglass component under consideration should be considered to have no aging effect.

DEK Response

LRA Table 3.5.2-12, Structures and Component Supports - Screenhouse - Aging Management Evaluation, includes the non-metallic (fiberglass) structural member "Traveling water screen covers." As indicated in the table, the external surface of the cover is exposed to an air-uncontrolled indoor environment and the internal surface is exposed to a raw water environment. The internal surface of the fiberglass covers is not submerged in raw water, but rather is exposed intermittently to raw water spray from

the operation of the traveling water screens. Therefore, the internal environment for the traveling water screen covers is not similar to that for fiberglass boat hulls that are constantly immersed in water and subjected to hydraulic pressures, which can result in blistering from water that penetrates the gelcoat into the underlying laminate. As such, there is no potential for blistering of the traveling water screen covers and no aging management program is required.

RAI 3.3.2.1-4

Background

LRA Tables 3.2.2-2, 3.3.2-9, 3.3.2-11, and 3.3.2-19 list combinations of components, materials environments and aging effects among other parameters for items which are in scope for license renewal.

Issue

In its review of these tables the staff noted that the applicant claims consistency for the items described below, by placing Note A on them. A review of these items against the GALL Report showed that the referenced items in the GALL Report do not correspond with the AMP proposed by the applicant. The staff does not understand the applicant's description of consistency with the GALL Report.

Table	Subcomponent	Material	Environment	Aging Effect	AMP	GALL Vol 2	Table 1 Item	Notes
3.2.2-2	Valves Enclosures	Steel	(I) Air-moist	Loss of Material/general, pitting, crevice and Boric acid corrosion	Work Control Process	EP-043	3.2.1-46	A;4
3.3.2-11	Damper Housings	Steel	(I) Air-moist	Loss of material/general, pitting, crevice, and (for drip pans and drain lines) microbiologically influenced corrosion	Work Control Process	VII.F2-03	3.3.1-72	A;1
3.3.2-11	Ductwork	Steel	(I) Air-moist	Loss of material/general, pitting, crevice, and (for drip pans and drain lines) microbiologically influenced corrosion	Work Control Process	VII.F2-03	3.3.1-72	A;1
3.3.2-11	Fan/Blower Housings	Steel	(I) Air-moist	Loss of material/general, pitting, crevice, and (for drip pans and drain lines) microbiologically influenced corrosion	Work Control Process	VII.F2-03	3.3.1-72	A;1

Request

Please, specify if the correct footnote for the referenced items is Note A, and justify how that conclusion was reached.

DEK Response

DEK letter 09-597, dated September 25, 2009 [ADAMS ML092710045], amended the *Work Control Process* program to be consistent with NUREG-1801, *Generic Aging Lessons Learned (GALL) Report*, Section XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components." Based on this change, the use of Note A is correct for the items identified in the RAI.

RAI 3.3.2.1-5

Background

LRA Table 3.3.2-19 lists combinations of components, materials environments and aging effects among other parameters for items which are in scope for license renewal.

Issue

In its review of these tables, the staff noted that the applicant claims consistency for the items described below, by placing Note A on them. A review of these items against the GALL Report showed that the referenced items in the GALL Report do not correspond with the AMPs proposed by the applicant. The staff does not understand the applicant's description of consistency with the GALL Report.

Table	Subcomponent	Material	Environment	Aging Effect	AMP	GALL Vol 2	Table 1 Item	Notes
3.3.2-19	Compressor Casings	Steel	(I) Air-moist	Loss of material/general, pitting, and crevice corrosion	Compressed Air Monitoring	VII.H2-21	3.3.1-71	A;2
3.3.2-19	Expansion Tanks	Steel	(E) Air-Outdoor	Loss of material/general, pitting, and crevice corrosion	External Surfaces Monitoring	VII.H1-11	3.3.1-40	A;1

Request

Please, specify if the correct footnote for the referenced items is Note A, and justify how that conclusion was reached.

DEK Response

Note A was listed in error for the LRA Table 3.3.2-19 items identified in this RAI. Note E should have been listed for both of these items.

RAI 3.3.2.1-6

Background

LRA Tables 3.3.2-9, 3.3.2-13 and 3.3.2-14 list combinations of components, materials environments and aging effects among other parameters for items which are in scope for license renewal.

Issue

In its review of these tables the staff noted that the applicant claims consistency for the items described below, by placing Note A on them. A review of these items against the GALL Report showed that for the referenced items the GALL Report proposes a plant-specific review and do not recommends a particular AMP. The staff does not understand the applicant's description of consistency with the GALL Report.

Table	Subcomponent	Material	Environment	Aging Effect	AMP	GALL Vol 2	Table 1	Notes
3.3.2-13	Heating Coils	Copper Alloys	(E)Air-indoor uncontrolled	Loss of material/pitting and crevice corrosion	External Surfaces Monitoring	VII.F2-14	3.3.1-25	A;1
3.3.2-14	Tubing	Copper Alloys	(E)Air-indoor uncontrolled	Loss of material/pitting and crevice corrosion	External Surfaces Monitoring	VII.F3-16	3.3.1-25	A

Request

Please, specify if the correct footnotes for the referenced items are Note A, and justify how that conclusion was reached.

DEK Response

Note A was listed in error for the LRA Table 3.3.2-13 and 3.3.2-14 items identified in this RAI. Note E should have been listed for both of these items.

RAI 3.3.2.1-2

Background

LRA Tables 3.3.2-6 and 3.3.2-20 list combinations of components, materials environments and aging effects among other parameters for items which are in scope for license renewal.

Issue

In its review of these tables the staff noted that the applicant claims consistency for the items described below, by assigning Notes B and E. The staff is unable to verify the consistency of these items with the GALL Report because the applicant did not include references to Table 1 or to the GALL Report. The staff does not understand the applicant's description of consistency with the GALL Report.

Table	Subcomponent	Material	Environment	Aging Effect	AMP	GALL Vol 2	Table 1	Notes
3.3.2-6	Filter Housing (SW to chlorination pumps)	Stainless Steel	(I) Raw Water	Loss of material/ microbiologically influenced corrosion	Work Control Process			E
3.3.2-20	Valves	Stainless Steel	(I) Raw Water	Loss of material/ microbiologically influenced corrosion	Open-Cycle Cooling Water System			B;2
3.3.2-20	Valves	Stainless Steel	(I) Raw Water	Loss of material/ microbiologically influenced corrosion	Work Control Process			E;2

Request

Please, provide the references to Table 1 or to the GALL Report, and specify if the footnotes for the referenced items are correct.

DEK Response

Notes B and E were listed in error for the LRA Table 3.3.2-6 and 3.3.2-20 items identified in this RAI. Note H should have been listed for each of these items.