

LimerickNPEm Resource

From: Christopher.Wilson2@exeloncorp.com
Sent: Monday, March 05, 2012 10:19 AM
To: Kuntz, Robert
Subject: FW: 3.5.12 - LIM - Response to RAI dated 2.16.12 & 2.17.12 re. LGS LRA.pdf - Adobe Acrobat Professional
Attachments: 3.5.12 - LIM - Response to RAI dated 2.16.12 & 2.17.12 re. LGS LRA.pdf

Rob...This was sent to DCC today

Chris Wilson
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10 CFR 50
10 CFR 51
10 CFR 54

March 5, 2012

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

Limerick Generating Station, Units 1 and 2
Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Subject: Response to NRC Requests for Additional Information, dated February 16, 2012, and February 17, 2012, related to the Limerick Generating Station License Renewal Application

Reference: 1. Exelon Generation Company, LLC letter from Michael P. Gallagher to NRC Document Control Desk, "Application for Renewed Operating Licenses", dated June 22, 2011
2. Letter from Robert F. Kuntz (NRC) to Michael P. Gallagher (Exelon), "Requests for Additional Information for the review of the Limerick Generating Station, Units 1 and 2, License Renewal Application (TAC Nos. ME6555, ME6556)", dated February 16, 2012
3. Letter from Robert F. Kuntz (NRC) to Michael P. Gallagher (Exelon), "Requests for Additional Information for the review of the Limerick Generating Station, Units 1 and 2, License Renewal Application (TAC Nos. ME6555, ME6556)", dated February 17, 2012

In the Reference 1 letter, Exelon Generation Company, LLC (Exelon) submitted the License Renewal Application (LRA) for the Limerick Generating Station, Units 1 and 2 (LGS). In the Reference 2 and Reference 3 letters, the NRC requested additional information to support the staffs' review of the LRA.

Enclosed are the responses to these requests for additional information.

This letter and its enclosures contain no regulatory commitments.

If you have any questions, please contact Mr. Al Fulvio, Manager, Exelon License Renewal, at 610-765-5936.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 3-5-2012

Respectfully,

A handwritten signature in black ink, reading "Michael P. Gallagher". The signature is written in a cursive, flowing style.

Michael P. Gallagher
Vice President - License Renewal Projects
Exelon Generation Company, LLC

Enclosures: A: Responses to Request for Additional Information
B: Updates to affected LGS LRA sections

cc: Regional Administrator – NRC Region I
NRC Project Manager (Safety Review), NRR-DLR
NRC Project Manager (Environmental Review), NRR-DLR
NRC Project Manager, NRR-Limerick Generating Station
NRC Senior Resident Inspector, Limerick Generating Station
R. R. Janati, Commonwealth of Pennsylvania

Enclosure A

**Responses to Request for Additional Information related to various sections of the LGS
License Renewal Application (LRA)**

RAI 2.4.6-1
RAI 2.4.8-1
RAI 2.5-1
RAI 2.3.3.4-1
RAI 2.3.3.4-2
RAI 2.3.2.5-1
RAI 2.3.3.7-1
RAI 2.3.3.16-1
RAI 2.3.3.20-1
RAI 2.3.3.23-1

RAI 2.4.6-1

Confirm the inclusion of the "rubberized flat dumbbell-type water stops" that are located at all construction joints below the maximum expected groundwater level for all safety-related enclosures as stated in LGS UFSAR 3.4.1.2 are within scope of LR and subject to an Aging Management Review. Otherwise, justify the exclusion from the scope of license renewal.

Exelon Response

Based on the guidance in Table 2.4-1 in NUREG-1800, LGS water-stops need not be called out explicitly in the scoping/screening results since they are included as parts of structural components that are subject to an AMR. Water-stops are addressed as part of the component, "Concrete: Below-grade exterior (Inaccessible)" that is subject to the Structures Monitoring (B.2.1.35) program or the RG 1.127, Inspection of Water-Control Structures Associated with Nuclear Power Plants (B.2.1.36) program.

RAI 2.4.8-1

Provide additional information regarding the metal enclosure (butler building) that is located over the Diesel Oil Storage Tank Structure. Specifically, the information should address and justify the exclusion of the metal enclosure from LR scope as well as a detailed description on how its failure would not prevent satisfactory accomplishment of a safety-related function per 10 CFR 54.4.

Exelon Response

A metal enclosure (butler building) was added in 1998 above the diesel oil storage tank access manholes to provide shelter for personnel accessing the manholes during inclement weather. The loading on the manholes due to a complete collapse of the metal enclosure was evaluated and determined to be bounded by the tornado missile design of the tank manholes and buried diesel fuel oil tanks.

The reinforced concrete top slabs of the tank access manholes are approximately 12 inches above grade and a minimum of 21 inches thick. The Diesel Oil Storage Tank Structures described in LRA Section 2.4.8 consist of eight buried fuel oil storage tanks and eight tank access manholes adjacent to each other, one for each emergency diesel generator. The tanks are located approximately 9 feet below grade and encased in Fillcrete (a cementitious controlled low strength material). The common metal enclosure is located above the eight access manholes, with the sides and ends supported by the reinforced concrete Seismic Category I manhole walls and not by the concrete top slabs. There are fill and vent path lines that are located above the Diesel Oil Storage Tank Structures. The evaluation also considered the impact of complete collapse on the fill lines and vent paths of the tanks and concluded that there would be no loss of safety function.

Therefore, this metal enclosure is not within the scope of license renewal because the collapse of the metal enclosure would not prevent satisfactory accomplishment of any safety-related function per 10 CFR 54.4. Additionally, this metal enclosure is not relied upon for compliance with any of the regulated events as defined in 10 CFR 54.4(a)(3).

RAI 2.5-1

In accordance with 10 CFR 54.4(a)(3) and SRP-LR Section 2.5.2.1.1, the control circuits and structures associated with the switchyard circuit breakers used to supply the station blackout recovery paths should be in scope of license renewal. Please, confirm whether these components are within the scope of license renewal.

Exelon Response

Consistent with SRP-LR Section 2.5.2.1.1, the control circuits and structures associated with the switchyard circuit breakers used to supply the station blackout recovery paths are in scope of license renewal.

The circuit breaker control circuits are included in the LRA discussions on scoping of electrical systems and components for station blackout in Section 2.1.3.4 and the Electrical Components portions of Table 2.2-1 and Section 2.5.1. The LRA discussion on scoping of electrical systems and components for station blackout identifies the boundary switchyard circuit breakers. The LRA also identifies the associated electrical commodities for the recovery path; the commodities are for the circuit breakers, overhead and underground circuits, transformers, the onsite electrical distribution system and the associated control circuits and structures.

The switchyard circuit breaker structures are identified as included in the scope of license renewal as discussed in LRA sections 2.1.3.4 and 2.4.1.

RAI 2.3.3.4-1

As described in license renewal application (LRA) Sections 2.3.3.4, 2.3.3.7, 2.3.3.16, 2.3.3.20, and 2.3.3.23, the LRA listed generalized "ducting and components type" category excluding its specific HVAC system component types with their respective housings such as fans and fan housings, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils, etc., as applicable, in LRA tables.

Therefore, clarify whether these component types and all other applicable component types of the system are within the scope of license renewal in accordance with Title 10 of the Code of Federal Regulations (10 CFR) 54.4(a), and subject to aging management review in accordance with 10 CFR 54.21(a)(1). If these component types are in the scope of license renewal, update the LRA by providing the applicable information in the appropriate LRA tables. If these component types are excluded from the scope of license renewal and not subject to an aging management review (AMR), provide justification for the exclusion.

Exelon Response

The LGS "Ducting and Components" component type includes fan housings, damper housings, fire damper housings, and filter housings. This practice is consistent with the GALL Report Table IX.B definition of ducting and components, which states that ducting and components includes *"heating, ventilation, and air-conditioning (HVAC) components. Examples include ductwork . . . equipment frames and housing, housing supports, including housings for valves, dampers (including louvers, gravity, and fire dampers), and ventilation fans"*. These components are within the scope of license renewal and subject to AMR. Heating and cooling

coils are included in the LGS "Heat Exchanger Components" component type. Specific details are discussed in Exelon's responses to the following RAIs:

- RAI 2.3.3.4-2 for Control Enclosure Ventilation
- RAI 2.3.3.7-1 for Emergency Diesel Generator Enclosure Ventilation
- RAI 2.3.3-16-1 for Primary Containment Ventilation
- RAI 2.3.3.20-1 for Reactor Enclosure Ventilation
- RAI 2.3.3.23-1 for Spray Pond Pump House Ventilation.

These components are reflected in LRA Table 3.3.2-4, Table 3.3.2-7, Table 3.3.2-16, Table 3.3.2-20, and Table 3.3.2-23.

RAI 2.3.3.4-2

Limerick Generating Station (LGS) control enclosure ventilation system described in LRA Section 2.3.3.4 and on LRA Drawing LR-78, Sheet 1 through 4, LR-M-90, Sheets 1 and 2, and LRA Table 2.3.3-4, "Control Enclosure Ventilation System -Components Subject to Aging Management Review." However, LRA Table 2.3.3-23 does not contain all the component types of the control enclosure ventilation system highlighted on the drawing. For example, while the table lists component types for bolting, ducting and components, and flexible connections, it does not list any specific components and their housing types associated with "ducting and components type" such as fans and fan housings, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils etc., as applicable.

Also, LRA Table 3.3.2-4, "Control Enclosure Ventilation System -Component Subject to Aging Management Review," does not list any specific components and their housing types associated with "ducting and components type" such as fans and fan housings, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils etc., as applicable.

Clarify whether these component types and all other applicable component types of the system are within the scope of license renewal in accordance with 10 CFR 54.4(a), and subject to AMR in accordance with 10 CFR 54.21 (a)(1). If these component types are in the scope of license renewal, update the LRA by providing the applicable information in the appropriate LRA tables. If these component types are excluded from the scope of license renewal and not subject to an AMR, provide justification for the exclusion.

Exelon Response

These components are within the scope of license renewal. No changes to the LRA are required since these components are already reflected in LRA Table 2.3.3-4, Control Enclosure Ventilation System Components Subject to Aging Management Review, and Table 3.3.2-4, Control Enclosure Ventilation System Summary of Aging Management Evaluation, as "Ducting and Components" and as "Heat Exchanger Components."

The LGS "Ducting and Components" component type includes fan housings, damper housings, fire damper housings, and filter housings. This practice is consistent with the GALL Report Table IX.B definition of ducting and components, which states that ducting and components includes *"heating, ventilation, and air-conditioning (HVAC) components. Examples include ductwork . . . equipment frames and housing, housing supports, including housings for valves, dampers (including louvers, gravity, and fire dampers), and ventilation fans"*. The "Ducting and Components" component type listed in LRA Table 3.3.2-4 includes ventilation and fire damper housings, electric duct heater frames, unit cooler and ventilation fan housings, and filter housings. These components are subject to AMR. Cooling coils are included in the "Heat Exchanger Components" component type. Fans, dampers, fire dampers, and electric duct heating coils are active components and not subject to AMR. Filter media are short-lived and not subject to AMR, as explained in the notes on drawing LR-M-78. LRA Table 2.3.3-4 and Table 3.3.2-4 list the heat exchangers that are within the scope of license renewal and subject to AMR.

RAI 2.3.2.5-1

Drawings LR-M-51 Sheet 3 at zone/location G-6 and LR-M-51 Sheet 5 at zone/location G-3 show test connection valves 1175B and 2175A and inlet piping and tail pipe and pipe cap highlighted in red as being nonsafety-related in-scope for structural support and/or spatial interaction with safety-related SSCs. Drawings LR-M-51 Sheet 1 at zone/location G-3 and LR-M-51 Sheet 7 at zone/location G-6 show test connection valves 1175A and 2175B highlighted in green as being in scope due to supporting a safety-related or license renewal regulated event function. The tail pipe and pipe caps associated with 1175A and 2175B are highlighted in red. Please clarify the basis for inclusion of these test connection valves and inlet/outlet piping including any physical differences between LGS, Unit 1 and Unit 2 that resulted in different scoping criteria being applied.

Exelon Response

The test connections for valves HV-1F021A, HV-1F021B, HV-2F021A and HV-2F021B are installed to check for leakage from the valve stem packing. There are no physical differences between the four test connection configurations for LGS Units 1 and 2 that would require them to be classified differently from one another. The test connections do not perform an intended function in accordance with 10 CFR 54.4(a)(1) and are not relied on to demonstrate compliance with NRC regulated events per 10 CFR 54.4(a)(3). The test connections are in scope for license renewal for potential spatial interaction per 10 CFR 54.4(a)(2). Therefore, the valve stems, piping, 1/4-inch test valves and pipe caps should be highlighted in red at all four locations. The test connections containing tail pipe, pipe caps, and valves 1175B and 2175A are correctly highlighted in red as shown on drawings LR-M-51 sheets 3, zone G-6, and 5, zone G-3. The test connections containing valves 1175A and 2175B were inadvertently shown highlighted in green on drawings LR-M-51 sheet 1, zone G-3, and sheet 7, zone G-6, and should be shown highlighted in red. Drawing LR-M-51 sheets 1 and 7 will be revised to show the correct highlighting.

The test connection components are included in LRA Table 3.2.2-5, component types "Piping, piping components, and piping elements" and "Valves" with a leakage boundary intended function. No changes are required to the LRA.

RAI 2.3.3.7-1

LGS emergency diesel generator enclosure ventilation system is described in LRA Section 2.3.3.7 and on LRA Drawing LR-M-81, Sheets 1 and 3, and LR-M-20, Sheet 8 and 14, and LRA Table 2.3.3-7, "Emergency Diesel Generator Enclosure Ventilation System -Components Subject to Aging Management Review." However, LRA Table 2.3.3-7 does not contain all the component types of the emergency diesel generator enclosure ventilation system highlighted on the drawing. For example, while the table lists component types for bolting, ducting and components, and flexible connections, it does not list any specific components and their housing types associated with "ducting and components type" such as fans and fan housing, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils etc., as applicable.

Also, LRA Table 3.3.2-7, "Emergency Diesel Generator Enclosure Ventilation System Component Subject to Aging Management Review," does not list any specific components and their housing types associated with "ducting and components type" such as fans and fan housings, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils etc., as applicable.

Clarify whether these component types and all other applicable component types of the system are within the scope of license renewal in accordance with 10 CFR 54.4(a), and subject to aging management review in accordance with 10 CFR 54.21 (a)(1). If these component types are in the scope of license renewal, update the LRA by providing the applicable information in the appropriate LRA tables. If these component types are excluded from the scope of license renewal and not subject to an AMR, provide justification for the exclusion.

Exelon Response

These components are within the scope of license renewal. No changes to the LRA are required since these components are already reflected in the following LRA Tables as "Ducting and Components" and as "Heat Exchanger Components":

- Table 2.3.3-7, Emergency Diesel Generator Enclosure System Components Subject to Aging Management Review
- Table 3.3.2-7, Emergency Diesel Generator Enclosure Ventilation System Summary of Aging Management Evaluation
- Table 2.3.3-1, Auxiliary Steam System Components Subject to Aging Management Review
- Table 3.3.2-1, Auxiliary Steam System Summary of Aging Management Evaluation

The LGS "Ducting and Components" component type includes fan housings, damper housings, and fire damper housings. This practice is consistent with the GALL Report Table IX.B definition of ducting and components, which states that ducting and components includes *"heating, ventilation, and air-conditioning (HVAC) components. Examples include ductwork . . . equipment frames and housing, housing supports, including housings for valves, dampers (including louvers, gravity, and fire dampers), and ventilation fans."* The "Ducting and Components" component type listed in LRA Table 3.3.2-7 includes ventilation and fire damper housings and fan housings. These components are subject to AMR. Fans, dampers, and fire

dampers are active components and not subject to AMR. There are no filters or cooling coils in this system. As indicated on drawing LR-M-81 sheets 1 and 3, and LRA Table 2.3.3-1 and Table 3.3.2-1, the steam supply to the unit heaters is evaluated with the Auxiliary Steam system.

RAI 2.3.3.16-1

LGS primary containment ventilation system is described in LRA Section 2.3.3.16 and on LRA Drawing LR-M-77, Sheets 1 and 2, LR-M-87, Sheets 1 through 10, LR-M-23, Sheets 4 and 7, LR-M-43, Sheets 1 and 3, LR-M-60, Sheets 1 and 2, and LR-M-69, Sheets 1 through 4, and LRA Table 2.3.3-16, "Primary Containment Ventilation System -Components Subject to Aging Management Review." However, LRA Table 2.3.3-16 does not contain all the component types of the Primary Containment Ventilation System highlighted on the drawing. For example, while the table lists component types such as bolting, ducting and components, flexible connections, etc., it does not list any specific components and their housing types associated with "ducting and components type."

Also, LRA Table 3.3.2-16, "Primary Containment Ventilation System -Component Subject to Aging Management Review," does not list any specific components and their housing types associated with "ducting and components type."

Clarify whether these component types and all other applicable component types of the system are within the scope of license renewal in accordance with 10 CFR 54.4(a), and subject to AMR in accordance with 10 CFR 54.21(a)(1). If these component types are in the scope of license renewal, update the LRA by providing the applicable information in the appropriate LRA tables. If these component types are excluded from the scope of license renewal and not subject to an AMR, provide justification for the exclusion.

Exelon Response

These components are within the scope of license renewal. No changes to the LRA are required since these components are already reflected in LRA Table 2.3.3-16, Primary Containment Ventilation System Components Subject to Aging Management Review, and Table 3.3.2-16, Primary Containment Ventilation System Summary of Aging Management Evaluation, as "Ducting and Components" and as "Heat Exchanger Components."

The LGS "Ducting and Components" component type includes fan housings and damper housings. This practice is consistent with the GALL Report Table IX.B definition of ducting and components, which states that ducting and components includes *"heating, ventilation, and air-conditioning (HVAC) components. Examples include ductwork . . . equipment frames and housing, housing supports, including housings for valves, dampers (including louvers, gravity, and fire dampers), and ventilation fans."* The "Ducting and Components" component type listed in LRA Table 3.3.2-16 includes ventilation and damper housings and unit cooler fan housings. These components are subject to AMR. Cooling coils are included in the "Heat Exchanger Components" component type. LRA Table 2.3.3-16 and Table 3.3.2-16 list the heat exchangers that are within the scope of license renewal and subject to AMR. Fans and dampers are active components and not subject to AMR. There are no fire dampers, filters or heaters in this system.

RAI 2.3.3.20-1

LGS reactor enclosure ventilation system is described in LRA Section 2.3.3.20 and on LRA Drawing LR-M-76, Sheets 1 through 10, and LRA Table 2.3.3-20, "Reactor Enclosure Ventilation System -Components Subject to Aging Management Review." However, LRA Table 2.3.3-20 does not contain all the component types of the Reactor Enclosure Ventilation System highlighted on the drawing. For example, while the table lists component types such as bolting, ducting and components, flexible connections, etc., it does not list any specific components and their housing types associated with "ducting and components type."

Also, LRA Table 3.3.2-20, "Reactor Enclosure Ventilation System -Component Subject to Aging Management Review," does not list any specific components and their housing types associated with "ducting and components type."

Clarify whether these component types and all other applicable component types of the system are within the scope of license renewal in accordance with 10 CFR 54.4(a), and subject to aging management review in accordance with 10 CFR 54.21 (a)(1). If these component types are in the scope of license renewal, update the LRA by providing the applicable information in the appropriate LRA tables. If these component types are excluded from the scope of license renewal and not subject to an AMR, provide justification for the exclusion.

Exelon Response

These components are within the scope of license renewal. No changes to the LRA are required since these components are already reflected in the following LRA tables as "Ducting and Components" and as "Heat Exchanger Components":

- Table 2.3.2-6, Standby Gas Treatment System Components Subject to Aging Management Review
- Table 3.2.2-6, Standby Gas Treatment System Summary of Aging Management Evaluation
- Table 2.3.3-20, Reactor Enclosure Ventilation System Components Subject to Aging Management Review
- Table 3.3.2-20, Reactor Enclosure Ventilation System Summary of Aging Management Evaluation
- Table 2.3.3-1, Auxiliary Steam System Components Subject to Aging Management Review
- Table 3.3.2-1, Auxiliary Steam System Summary of Aging Management Evaluation

The LGS "Ducting and Components" component type includes fan housings, damper housings, fire damper housings, and filter housings. This practice is consistent with the GALL Report Table IX.B definition of ducting and components, which states that ducting and components includes *"heating, ventilation, and air-conditioning (HVAC) components. Examples include ductwork . . . equipment frames and housing, housing supports, including housings for valves, dampers (including louvers, gravity, and fire dampers), and ventilation fans."* As described in LRA Sections 2.3.2.6 and 2.3.3.20, the Standby Gas Treatment System (SGTS) recirculates air

through the same flow path that is utilized by the Reactor Enclosure Ventilation (REV) system. For the purposes of license renewal evaluation, the shared ductwork and components are evaluated with SGTS. Therefore, this response addresses components which are included in both of these license renewal systems.

The "Ducting and Components" component type listed in LRA Table 3.3.2-6 for SGTS includes ventilation damper housings, fan housings, filter housings, and electric duct heater frames. The "Ducting and Components" component type listed in LRA Table 3.3.2-20 for REV includes ventilation and fire damper housings and unit cooler fan housings. These components are subject to AMR. Cooling coils are included in LRA Table 3.3.2-20 in the "Heat Exchanger Components" component type. Fans, dampers, fire dampers, and electric duct heating coils are active components and not subject to AMR. Filter media are short-lived and not subject to AMR, as explained in the notes on drawing LR-M-76. As indicated on drawing LR-M-76 sheets 1, 2, 7, and 8, and LRA Table 2.3.3-1 and Table 3.3.2-1, the steam supply to the unit heaters is evaluated with the Auxiliary Steam system.

RAI 2.3.3.23-1

LGS spray pond pump house ventilation system is described in LRA Section 2.3.3.23 and on LRA Drawing LR-81, Sheet 1, and LRA Table 2.3.3-23, "Spray Pond Pump House Ventilation System -Components Subject to Aging Management Review." However, LRA Table 2.3.3-23 does not contain all the component types of the Spray Pond Pump House Ventilation System highlighted on the drawing. For example, while the table lists component types for bolting, ducting and components, and flexible connections, it does not list any specific components and their housing types associated with "ducting and components type" such as fans and fan housings, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils etc., as applicable. Also, LRA Table 3.3.2-23, "Spray Pond Pump House Ventilation System -Component Subject to Aging Management Review" does not list any specific components and their housing types associated with "ducting and components type" such as fans and fan housings, dampers and damper housings, fire dampers and fire damper housings, filters and filter housings, heating and cooling coils etc., as applicable.

Clarify whether these component types and all other applicable component types of the system are within the scope of license renewal in accordance with 10 CFR 54.4(a), and subject to aging management review in accordance with 10 CFR 54.21 (a)(1). If these component types are in the scope of license renewal, update the LRA by providing the applicable information in the appropriate LRA tables. If these component types are excluded from the scope of license renewal and not subject to an AMR, provide justification for the exclusion.

Exelon Response

These components are within the scope of license renewal. The LGS "Ducting and Components" component type includes fan housings, damper housings, fire damper housings. This practice is consistent with the GALL Report Table IX.B definition of ducting and components, which states that ducting and components includes *"heating, ventilation, and air-conditioning (HVAC) components. Examples include ductwork . . . equipment frames and housing, housing supports, including housings for valves, dampers (including louvers, gravity, and fire dampers), and ventilation fans."*

The "Ducting and Components" component type listed in LRA Table 2.3.3-23 and Table 3.3.2-23 includes ventilation and fire damper housings and fan housings. These components are subject to AMR. There are no filters or cooling coils in this system. Fans, dampers, fire dampers, and electric duct heating coils are active components and not subject to AMR.

During evaluation of this RAI, it was determined the electric duct heater housings and a portion of the fan housings are stainless steel and aluminum respectively, and not carbon steel as reflected in the LRA AMR Table for the Spray Pond Pump House Ventilation System. As a result of this determination, LRA Section 3.3.2.1.23 and LRA Table 3.3.1 and Table 3.3.2-23 are revised as shown in Enclosure B to include these materials. An extent of condition review of these components in the other ventilation systems confirmed that no additional changes are required to the LRA.

Enclosure B
LGS License Renewal Application Updates

Notes:

- Updated LRA Sections and Tables are provided in the same order as the RAI responses contained in Enclosure A.
- To facilitate understanding, portions of the original LRA have been repeated in this Enclosure, with revisions indicated.
- Existing LRA text is shown in normal font. Changes are highlighted with ***bold italics*** for inserted text and strikethroughs for deleted text.

As a result of the response to RAI 2.3.3.23-1 provided in Enclosure A of this letter, LRA Section 3.3.2.1.23, page 3.3-27, is revised as follows:

3.3.2.1.23 Spray Pond Pump House Ventilation System

Materials

The materials of construction for the Spray Pond Pump House Ventilation System components are:

- ***Aluminum***
- Carbon Steel
- Carbon and Low Alloy Steel Bolting
- Elastomer
- Galvanized Steel
- ***Stainless Steel***

As a result of the response to RAI 2.3.3.23-1 provided in Enclosure A, LRA Table 3.3.1, page 3.3-72, is revised as follows:

Table 3.3.1 Summary of Aging Management Evaluations for the Auxiliary Systems

Item Number	Component	Aging Effect/ Mechanism	Aging Management Programs	Further Evaluation Recommended	Discussion
3.3.1-92	Aluminum Piping, piping components, and piping elements exposed to Condensation (Internal)	Loss of material due to pitting and crevice corrosion	Chapter XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"	No	Consistent with NUREG-1801. The Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26) program will be used to manage the loss of material in aluminum piping, piping components, and piping elements, ducting components, and heat exchanger components exposed to air-gas/wetted in the Control Enclosure Ventilation System, Emergency Diesel Generator System, Primary Containment Ventilation System, Process Radiation Monitoring System, Reactor Enclosure Ventilation System, Spray Pond Pump House Ventilation System , and Standby Gas Treatment System. The Compressed Air Monitoring (B.2.1.15) program has been substituted and will be used to manage the loss of material in aluminum piping, piping components, and piping elements exposed to air-gas/wetted in the Compressed Air System and Primary Containment Instrument Gas System.
3.3.1-93	Copper alloy Piping, piping components, and piping elements exposed to Raw water (potable)	Loss of material due to pitting and crevice corrosion	Chapter XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"	No	Not applicable. There are no copper alloy piping, piping components, and piping elements exposed to raw water (potable) in the Auxiliary Systems.

As a result of the response to RAI 2.3.3.23-1 provided in Enclosure A of this letter, LRA Table 3.3.1, page 3.3-73, is revised as follows:

Table 3.3.1 Summary of Aging Management Evaluations for the Auxiliary Systems					
Item Number	Component	Aging Effect/ Mechanism	Aging Management Programs	Further Evaluation Recommended	Discussion
3.3.1-94	Stainless steel Ducting and components exposed to Condensation	Loss of material due to pitting and crevice corrosion	Chapter XI.M38, "Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components"	No	Consistent with NUREG-1801. The Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26) program will be used to manage the loss of material in stainless steel piping, piping components, and piping elements, ducting components, tanks, and heat exchanger components exposed to air-gas/wetted in the Control Enclosure Ventilation System, Emergency Diesel Generator System, Primary Containment Instrument Gas System, Primary Containment Ventilation System, Process Radiation Monitoring System, Radwaste System, and Reactor Enclosure Ventilation System, and Spray Pond Pump House Ventilation System .

As a result of the response to RAI 2.3.3.23-1 provided in Enclosure A of this letter, LRA Table 3.3.2-23, “Spray Pond Pump House Ventilation System Summary of Aging Management Evaluation” page 3.3-233, is revised as follows:

Table 3.3.2-23 **Spray Pond Pump House Ventilation System**

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Item	Table 1 Item	Notes
Ducting and Components	Pressure Boundary	Aluminum	Air - Indoor, Uncontrolled (External)	None	None	VII.J.AP135	3.3.1-113	C
			Air/Gas - Wetted (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26)	VII.F4.AP-142	3.3.1-92	C
		Carbon Steel	Air - Indoor, Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.25)	VII.F4.A-10	3.3.1-78	A
			Air/Gas - Wetted (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26)	VII.F4.A-08	3.3.1-90	A
		Elastomer	Air - Indoor, Uncontrolled (External)	Hardening and Loss of Strength	External Surfaces Monitoring of Mechanical Components (B.2.1.25)	VII.F4.AP-102	3.3.1-76	A
			Air/Gas - Wetted (Internal)	Hardening and Loss of Strength	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26)			G
		Galvanized Steel	Air - Indoor, Uncontrolled (External)	None	None	VII.J.AP-13	3.3.1-116	C
			Air/Gas - Wetted (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26)	VII.F4.A-08	3.3.1-90	A
		Stainless Steel	Air - Indoor, Uncontrolled (External)	None	None	VII.J.AP-123	3.3.1-120	C
			Air/Gas - Wetted (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.26)	VII.F2.AP-99	3.3.1-94	A
Flexible Connection	Pressure Boundary	Elastomer	Air - Indoor, Uncontrolled (External)	Hardening and Loss of Strength	External Surfaces Monitoring of Mechanical Components (B.2.1.25)	VII.F4.AP-102	3.3.1-76	A
				Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.25)	VII.F4.AP-113	3.3.1-82	A