Exelon Generation®

Michael P. Gallagher
Vice President, License Renewal
Exelon Nuclear

200 Exelon Way
Kennett Square, PA 19348

610 765 5958 Office
610 765 5956 Fax
www.exeloncorp.com

michaelp.gallagher@exeloncorp.com

10 CFR 50
10 CFR 51
10 CFR 54

RS-15-305

December 2, 2015

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

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Corrections to the LaSalle County Station, Units 1 and 2, License Renewal Application (TAC Nos. MF5347 and MF5346)

Reference: Letter from Michael P. Gallagher, Exelon Generation Company LLC (Exelon) to NRC Document Control Desk, dated December 9, 2014, "Application for Renewed Operating Licenses"

In the Reference letter, Exelon Generation Company, LLC (Exelon) submitted the License Renewal Application (LRA) for the LaSalle County Station (LSCS), Units 1 and 2. Exelon has identified a number of corrections that need to be made to the LRA.

The Enclosure to this letter provides a description of each correction, and corresponding mark-ups to affected portions of the LRA, thereby supplementing the LSCS LRA.

Change #3 addresses License Renewal Change Request (LRCR) REGION-10, involving an operating experience example provided in the LRA for the BWR Feedwater Nozzle aging management program. This item was identified during the NRC Region III IP-71002 Inspection in October 2015.

This submittal has been discussed with the NRC License Renewal Project Manager for the LSCS License Renewal project.

There are no new or revised regulatory commitments contained in this letter.

If you have any questions, please contact Mr. John Hufnagel, Licensing Lead, LaSalle License Renewal Project, at 610-765-5829.

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

Executed on 12-02-2015

Respectfully,

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

Enclosure: Corrections to the LSCS LRA

cc: Regional Administrator – NRC Region III
NRC Project Manager (Safety Review), NRR-DLR
NRC Project Manager (Environmental Review), NRR-DLR
NRC Project Manager, NRR-DORL- LaSalle County Station
NRC Senior Resident Inspector, LaSalle County Station
Illinois Emergency Management Agency - Division of Nuclear Safety

Enclosure

Corrections to the LSCS LRA

Introduction

This enclosure contains five (5) License Renewal Application (LRA) corrections that were identified subsequent to the submittal of the LRA. In addition, a discrepancy in the response to RAI B.2.1.13-3, provided in Exelon Letter RS-15-193, is addressed. For each correction, the change is described and the affected page number(s) and portion of the LRA is provided. For clarity, entire sentences or paragraphs from the LRA, as modified by previous RAI responses, are provided with deleted text highlighted by ~~strikethroughs~~ and inserted text highlighted by ***bolded italics***. Revisions to LRA tables are shown by providing excerpts from the affected tables.

Change #1: Condenser and Air Removal System

Affected LRA Section: 2.3.4.2

LRA Page Number: 2.3-146

Description of Change: An inconsistency has been identified in the Reason for Scope Determination paragraph provided in LRA Section 2.3.4.2 for the Condenser and Air Removal System. It is stated in this paragraph that the Condenser and Air Removal System is not in scope under 10 CFR 54.4(a)(2) because failure of nonsafety-related portions of the system would not prevent satisfactory accomplishment of function(s) identified for 10 CFR 54.4(a)(1). This is contrary to the list of system intended functions for the Condenser and Air Removal System which includes 10 CFR 54.4(a)(2) intended functions for post-accident containment holdup and plate out of MSIV bypass leakage and to minimize the release of radioactive material to the environment. The Reason for Scope Determination paragraph is revised to correct this inconsistency, as shown below.

Reason for Scope Determination

The Condenser and Air Removal System meets 10 CFR 54.4(a)(1) because it is a safety-related system that is relied upon to remain functional during and following design basis events. ~~The Condenser and Air Removal System is not in scope under 10 CFR 54.4(a)(2) because failure of nonsafety-related portions of the system would not prevent satisfactory accomplishment of function(s) identified for 10 CFR 54.4(a)(1).~~ ***The Condenser and Air Removal System meets 10 CFR 54.4(a)(2) because failure of nonsafety-related portions of the system could prevent satisfactory accomplishment of function(s) identified for 10 CFR 54.4(a)(1).*** The Condenser and Air Removal System also meets 10 CFR 54.4(a)(3) because it is relied upon in the safety analyses and plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for Environmental Qualification (10 CFR 50.49). The Condenser and Air Removal System is not relied upon in any safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for Fire Protection (10 CFR 50.48), Anticipated Transient Without Scram (10 CFR 50.62), and Station Blackout (10 CFR 50.63).

Change #2: Nonessential Cooling Water System

Affected LRA Sections: Table 2.3.3-14 and Table 3.3.2-14

LRA Page Numbers: 2.3-94 and 3.3-183

Description of Change: Nonessential Cooling Water System Service Water Strainers 0WS01F, 1WS01F, and 2WS01F shown on license renewal boundary drawing LR-LAS-M-68, sheet 1 (dwg coordinates C, D, and E-4) are in the water supply to the Fire Water System and are in scope for 10 CFR 54.4(a)(3). The strainer bodies are included in LRA Table 2.3.3-14, Nonessential Cooling Water System Components Subject to Aging Management Review, and Table 3.3.2-14, Nonessential Cooling Water System Summary of Aging Management Evaluation, under the component type of piping, piping components, and piping elements with a component intended function of pressure boundary. However, the strainers also have an intended function to filter which was not identified as a component function in the LRA. LRA Table 2.3.3-14 is revised to add the component type of strainer element with a component intended function of filter. LRA Table 3.3.2-14 is revised to add the component type of strainer element with an intended function of filter with the corresponding material, environment, and aging management line item. These changes are shown below.

Table 2.3.3-14 Nonessential Cooling Water System
Components Subject to Aging Management Review

Component Type	Intended Function
Bolting	Mechanical Closure
	Structural Integrity
Heat Exchanger - (Aux Bldg HVAC Condenser Unit) Tube Side Components	Leakage Boundary
Heat Exchanger - (Aux Bldg HVAC Condenser Unit) Tubes	Leakage Boundary
Heat Exchanger - (Counting Room HVAC Condenser Unit) Tube Side Components	Leakage Boundary
Heat Exchanger - (Counting Room HVAC Condenser Unit) Tubes	Leakage Boundary
Heat Exchanger - (Fuel Pool Cooling) Tube Side Components	Leakage Boundary
Heat Exchanger - (Primary Containment Ventilation Chiller Service Water Condenser) Tube Side Components	Leakage Boundary
Heat Exchanger - (Primary Containment Ventilation Chiller Service Water Condenser) Tubes	Leakage Boundary
Heat Exchanger - (Process Computer Room A/C Unit) Tube Side Components	Leakage Boundary
Heat Exchanger - (Process Computer Room A/C Unit) Tubes	Leakage Boundary
Heat Exchanger - (Reactor Building Closed Cooling Water Heat Exchanger) Tube Side Components	Leakage Boundary
Piping, piping components, and piping elements	Leakage Boundary
	Pressure Boundary
Pump Casing (Service Water)	Pressure Boundary
Strainer Element	***Filter***
Tanks (Clean Gland Water)	Leakage Boundary
Traveling Water Screen Framework	Structural Integrity
Valve Body	Leakage Boundary
	Pressure Boundary

Table 3.3.2-14 Nonessential Cooling Water System (Continued)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Item	Table 1 Item	Notes
Piping, piping components, and piping elements	Pressure Boundary	Carbon Steel	Raw Water (Internal)	Loss of Material	Open-Cycle Cooling Water System (B.2.1.12)	VII.C1.AP-183	3.3.1-38	C
						VII.C1.A-400	3.3.1-127	E, 4
			Soil (External)	Loss of Material	Buried and Underground Piping (B.2.1.28)	VII.C3.AP-198	3.3.1-106	A
		Stainless Steel	Air - Indoor Uncontrolled (External)	None	None	VII.J.AP-17	3.3.1-120	A
			Raw Water (Internal)	Loss of Material	Open-Cycle Cooling Water System (B.2.1.12)	VII.C1.A-54	3.3.1-40	A
Pump Casing (Service Water)	Pressure Boundary	Gray Cast Iron	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.I.A-77	3.3.1-78	A
			Condensation (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.C1.A-405	3.3.1-132	A, 7
			Raw Water (Internal)	Loss of Material	Open-Cycle Cooling Water System (B.2.1.12)	VII.C1.AP-183	3.3.1-38	C
					Selective Leaching (B.2.1.22)	VII.C1.A-51	3.3.1-72	A
Strainer Element	***Filter***	***Stainless Steel***	***Raw Water (External)***	***Loss of Material***	***Open-Cycle Cooling Water System (B.2.1.12)***	***VII.C1.A-54***	***3.3.1-40***	***A***
Tanks (Clean Gland Water)	Leakage Boundary	Carbon Steel	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.I.A-77	3.3.1-78	A
			Condensation (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.C1.A-405	3.3.1-132	A, 7
			Raw Water (Internal)	Loss of Material	Open-Cycle Cooling Water System (B.2.1.12)	VII.C1.AP-183	3.3.1-38	C

Change #3: BWR Feedwater Nozzle

Affected LRA Section: B.2.1.5

LRA Page Number: B-33

Description of Change: An inconsistency has been identified in the Operating Experience discussion provided in LRA Appendix B, Section B.2.1.5 for the BWR Feedwater Nozzle aging management program. In Operating Experience item 3, it is stated that "minor recordable indications were noted and evaluated as acceptable within the software used by the automated UT inspection equipment, consistent with ASME Code, Section XI Article IWB-3000 criteria." The software used by the automated UT inspection equipment only provided the input data from the ultrasonic examination that was evaluated by the analyst that is trained and qualified to perform the examination and evaluate the data. Operating Experience item 3 is revised to correct this inconsistency, as shown below.

Operating Experience

3. The feedwater nozzles have been inspected for cracking as part of the existing augmented ISI program in accordance with the guidance in GE-NE-523-A71-0594-A, Revision 1. Each nozzle has been inspected at least twice using UT techniques recommended within GE-NE-523-A71-0594-A, Revision 1. Minor recordable indications were noted and evaluated as acceptable ~~within the software used by the automated UT inspection equipment,~~ consistent with ASME Code, Section XI Article IWB-3000 criteria, during the following inspections of feedwater nozzles:

- The Unit 1 N4A, C, D, E, F feedwater nozzle-to-vessel welds in 2012, during refueling outage L1R14.
- The Unit 2 N4A, D, E feedwater nozzle-to-vessel welds in 2011, during refueling outage L2R13.

In addition, as part of the ISI program, a reactor vessel pressure test is performed during each refueling outage to verify no unacceptable reactor coolant pressure boundary leakage. These pressure tests have not identified any leakage from the feedwater nozzles.

Change #4: BWR Vessel Internals

Affected LRA Section: B.2.1.9

LRA Page Number: B-44

Description of Change: An inconsistency has been identified in the Program Description provided in LRA Appendix B, Section B.2.1.9 for the BWR Vessel Internals aging management program. In the section for Core Spray inspections, it is stated that "The repair design criteria in BWRVIP-16-A and BWRVIP-19-A would be utilized in preparing a repair plan for the core plate." BWRVIP-16-A and BWRVIP-19-A provide guidance for preparing a repair plan for core spray piping and sparger components that are internal to the reactor vessel. The Core Spray portion of the Program Description is revised to correct this inconsistency, as shown below.

Program Description

Core Spray: Inspections and evaluations are performed in accordance with BWRVIP-18-R1-A. The repair design criteria in BWRVIP-16-A and BWRVIP-19-A would be utilized in preparing a repair plan for the core ~~plate~~ ***spray components that are internal to the reactor vessel***.

Change #5: Plant Drainage System

Affected LRA Sections: Table 3.3.2-16

LRA Page Numbers: 3.3-195

Description of Change: Modifications have been done to upgrade the current carbon steel sump pumps with more corrosion resistant stainless steel sump pumps in the Plant Drainage System. Stainless steel was not included in the LRA for sump pumps in the Plant Drainage System. LRA Table 3.3.2-16, Plant Drainage System Summary of Aging Management Evaluation, is revised to add the material type of Stainless Steel to the component type of Pump Casing (Sump Pumps) with the corresponding environments and aging management line items, as shown below.

Table 3.3.2-16 Plant Drainage System (Continued)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Item	Table 1 Item	Notes
Pump Casing (Drywell Floor and Drywell Equipment Drain Pumps)	Leakage Boundary	Ductile Cast Iron	Waste Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.25)	VII.E5.AP-281	3.3.1-91	A
Pump Casing (Reactor Building Equipment Drain Pump)	Leakage Boundary	Ductile Cast Iron	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.I.A-77	3.3.1-78	A
			Waste Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.25)	VII.E5.AP-281	3.3.1-91	A
Pump Casing (Sump Pumps)	Leakage Boundary	Carbon Steel	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.I.A-77	3.3.1-78	A
			Waste Water (Internal)	Loss of Material	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.25)	VII.E5.AP-281	3.3.1-91	A
		Stainless Steel	***Air - Indoor Uncontrolled (External)***	***None***	***None***	***VII.J.AP-17***	***3.3.1-120***	***A***
			Waste Water (Internal)	***Loss of Material***	***Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (B.2.1.25)***	***VII.E5.AP-278***	***3.3.1-95***	***A***

Change #6: Fire Protection System

Affected LRA Sections: Table 3.3.2-12

LRA Page Numbers: 3.3-167 and 3.3-171

Description of Change: In the response to RAI B.2.1.13-3 under Exelon Letter RS-15-193, dated August 6, 2015, Table 3.3.2-12, Fire Protection System, line item Tanks (Retard Chambers) was updated to include Aging Effect Requiring Management – Cracking, Aging Management Programs – Closed Treated Water Systems (B.2.1.13), and Notes – H,11. On further review it was determined that these items were added in error and do not apply to the Tanks (Retard Chambers) which have a raw water internal environment. LRA Table 3.3.2-12 is revised to remove the erroneous line items and note added in the response to RAI B.2.1.13-3 under Exelon Letter RS-15-193, dated August 6, 2015, as shown below.

Table 3.3.2-12 Fire Protection System (Continued)

Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Programs	NUREG-1801 Item	Table 1 Item	Notes
Tanks (Retard Chamber)	Pressure Boundary	Copper Alloy with 15% Zinc or More	Air - Indoor Uncontrolled (External)	None	None	VII.J.AP-144	3.3.1-114	C
			Raw Water (Internal)	~~Cracking~~	~~Closed Treated Water Systems (B.2.1.13)~~			~~H, 11~~
				Loss of Material	Fire Water System (B.2.1.17)	VII.G.AP-197	3.3.1-64	D
					Selective Leaching (B.2.1.22)	VII.C2.AP-43	3.3.1-72	C
		Ductile Cast Iron	Air - Indoor Uncontrolled (External)	Loss of Material	External Surfaces Monitoring of Mechanical Components (B.2.1.24)	VII.I.A-77	3.3.1-78	A
			Raw Water (Internal)	Loss of Material	Fire Water System (B.2.1.17)	VII.G.A-33	3.3.1-64	D

Table 3.3.2-12 Fire Protection System (Continued)

Plant Specific Notes: (continued)

~~11. The aging effects for copper alloy with 15% zinc or more in a closed cycle cooling water environment include cracking. The Closed Treated Water Systems (B.2.1.13) program is used to manage cracking for this component, material, and environment combination.~~