



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-16-068

April 04, 2016

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: Exelon Generation Company, LLC Comments on the Safety Evaluation Report with Open Items, related to the LaSalle County Station, Units 1 and 2 License Renewal Application

- References:**
1. Letter from Michael P. Gallagher, Exelon Generation Company, LLC (Exelon), to NRC Document Control Desk, "Application for Renewed Operating Licenses," dated December 9, 2014
 2. Letter from Christopher G. Miller (NRC) to Michael P. Gallagher (Exelon), "Safety Evaluation Report with Open Items Related to the LaSalle County Station, Units 1 and 2 (TAC Nos. MF5347 and MF5346)," dated February 29, 2016
 3. Letter from Jeffrey S. Mitchell (NRC) to Michael P. Gallagher (Exelon), "Requests for Additional Information for the review of the LaSalle County Station, Units 1 and 2 License Renewal Application – Set 15 (TAC Nos. MF5347 and MF5346)," dated February 16, 2016
 4. Letter from Michael P. Gallagher, Exelon Generation Company, LLC (Exelon), to NRC Document Control Desk, "Response to NRC Requests for Additional Information, Set 15, dated February 16, 2016 related to the LaSalle County Station, Units 1 and 2, License Renewal Application (TAC Nos. MF5347 and MF5346)," dated February 25, 2016

In Reference 1, Exelon Generation Company, LLC (Exelon) submitted the License Renewal Application (LRA) for LaSalle County Station (LSCS), Units 1 and 2.

In Reference 2, the U.S. Nuclear Regulatory Commission issued the Safety Evaluation Report with Open Items (SER) related to the LSCS License Renewal Application. Within the SER, the NRC staff identified two Open Items, OI 3.0.3.1.2-1 and OI 3.0.3.1.5-1. As noted in Reference 2, the staff issued a request for additional information (Reference 3) requesting Exelon to address these issues. In Reference 4, Exelon provided the staff with additional information to address these Open Items.

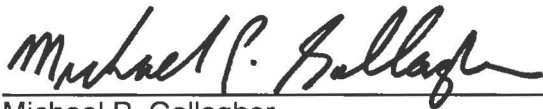
In addition, Reference 2 requested Exelon to review the SER and provide comments to the staff within 45 days of the date of that letter.

Exelon has completed its review of the SER. The Enclosure provides comments on the SER.

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.

Respectfully,



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

Enclosure: Exelon Comments on the Safety Evaluation Report with Open Items (SER)

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

Exelon Comments on the Safety Evaluation Report with Open Items (SER)

LaSalle County Station, Units 1 and 2, License Renewal Application

The table on the following pages provides comments and suggestions for NRC staff consideration, based upon Exelon's review of the LaSalle County Station, Units 1 and 2, License Renewal Application Safety Evaluation Report with Open Items (SER).

For each comment, an item number is specified in column 1, the SER Section number is identified in column 2, the SER page number is cited in column 3, and the specific comment is provided in column 4.

Exelon Comments on the Safety Evaluation Report with Open Items (SER)			
Where suggested changes to the SER are provided, they are highlighted with <i>bolded italics</i> for inserted text and strike throughs for deleted text			
#	Section #	Page #	Comment
1	Generic		The SER is inconsistent in how it describes system intended functions. For example, in SER Section 2.3.2.2.1 for LPCS some of the intended functions include the 54.4 criteria of the function (i.e., 10 CFR 54.4(a)(1)) while other intended functions do not. In SER Section 2.3.2.3.1 for RCIC none of the intended functions identify the 54.4 criteria. Suggest that all system/structure intended functions include the 54.4 criteria that is met. Additionally, there is an inconsistency with the amount of detail provided for each intended function. For example, SER Section 2.3.3.9.1 for the Drywell Pneumatic System includes for each intended function the basis for determining the applicability of the intended function.
2	2.3.1.1	2-25	The first sentence in the second paragraph should be deleted since it is redundant to the third paragraph and is not correct in that the safe ends are included within the Reactor Vessel scoping boundary as discussed in LRA Section 2.3.1.1 and are not "outside the containment." The rest of the second paragraph should be moved to below the third paragraph.
3	2.3.1.2.1	2-26	The last sentence of the first paragraph lists components that are included within the Reactor Vessel system boundary. However, it incorrectly lists "piping and valves, and incore instrumentation." These components should be deleted. The complete listing of components within scope of the Reactor Vessel system is provided in LRA Section 2.3.1.2, under Boundary description on LRA page 2.3-8.
4	2.3.1.2	2-27	Only the first four of the six intended functions for the Reactor Vessel that are listed in LRA Section 2.3.1.1 are listed in this section of the SER. Recommend listing all six intended functions.
5	2.3.1.3	2-28	The intended functions listed in SER Section 2.3.1.3 for the Reactor Internals System do not align with the intended functions listed in LRA Section 2.3.1.3. Some of the intended functions listed are not correct. Recommend listing the Reactor Vessel Internals intended functions from LRA Section 2.3.1.3.

Exelon Comments on the Safety Evaluation Report with Open Items (SER)

Where suggested changes to the SER are provided, they are highlighted with ***bolded italics*** for inserted text and ~~strike throughs~~ for deleted text

#	Section #	Page #	Comment
6	2.3.2.2	2-31	<p>Section 2.3.2.2.1 does not describe the functions of the LPCS System as described in LRA Section 2.3.2.2 for the LPCS System. For example, the paragraph does not discuss the function of LPCS following a break in the RCPB that rapidly depressurizes the reactor vessel. The first paragraph of SER Section 2.3.2.2.1 should be revised and reworded as follows:</p> <p><i>“LRA Section 2.3.2.2 describes Low Pressure Core Spray System (LPCS) as a standby system designed to provide core cooling following a break in the RCPB which would rapidly depressurize the reactor vessel. The LPCS is also designed to provide core cooling following a small break in which the ADS or HPCS has operated to lower the reactor vessel pressure to the operating range of the LPCS. to depressurize the reactor vessel in conjunction with HPCS and automatic depressurization system (ADS). In addition, the LPCS is automatically actuated by reactor vessel low water level or by drywell high pressure, or it can be manually actuated from the control room. The system accomplishes this task by delivering water from the suppression pool to the RPV through nozzles in a circular sparger (separate from the HPCS sparger) located above and around the core periphery. The LPCS is also designed to provide core cooling following a small break in which the ADS or HPCS has operated to lower the reactor vessel pressure to the operating range of the LPCS.”</i></p>

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7	2.3.2.2	2-31	<p>The second paragraph in SER Section 2.3.2.2.1 includes information not in the LSCS LRA. It should be deleted and replaced as follows:</p> <p>“Further, when a low water level in the reactor vessel or a drywell high pressure is sensed, with the reactor vessel pressure low enough, the LPCS automatically initiates, in conjunction with other ECCSs, such as the LPCI System, and sprays water on to the top of the fuel assemblies to maintain the fuel cladding temperature below 2,200 °F. However, the LPCI System starts from the same signals and operates independently.</p> <p><i>The LPCS is automatically actuated by reactor vessel low water level or drywell high pressure, or, can be manually actuated from the control room. The ADS is interlocked with the LPCS by means of pressure switches located in the pump discharge piping upstream of the pump discharge check valves. The pump discharge pressure is used as a permissive for automatic initiation of ADS. This ensures that the LPCS pump has received electrical power, started, and is capable of delivering water into the vessel prior to vessel depressurization.</i></p>
8	2.3.2.2	2-31	<p>The first sentence in the 3rd paragraph includes information not in the LSCS LRA, is unnecessary, and should be deleted as follows:</p> <p>“The LPCS consists of a motor-operated centrifugal pump that can be powered by normal auxiliary power or the standby alternating current (AC) power system. The LPCS includes safety-related primary containment isolation valves on the LPCS suction from the suppression pool, the LPCS relief valve discharge piping, and the LPCS full flow test and minimum flow lines.”</p>

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9	2.3.2.3	2-32	The second sentence in the second paragraph of SER Section 2.3.2.3.1 states: "During normal modes of operation, the turbine-driven pump takes suction from the cycled condensate storage tank or suppression pool and injects water into the RPV via one of the feedwater headers to feedwater spargers." Suggest deleting "normal modes of" so that this isn't confused with normal modes of reactor operation. Also, the RCIC System injects into the RPV via the head spray nozzle of the RPV, not the feedwater spargers. The second sentence in the second paragraph of SER Section 2.3.2.3.1 should therefore read: "During normal modes of operation, the turbine-driven pump takes suction from the cycled condensate storage tank or suppression pool and injects water into the RPV via one of the feedwater headers to feedwater spargers <i>RPV via the head spray nozzle of the RPV."</i>
10	2.3.2.3	2-32	LRA Section 2.3.2.3 states in the fourth paragraph of the "Description" section that "The RCIC System operation is initiated automatically by reactor vessel low water level or can be initiated manually." Recommend revising the second sentence in the third paragraph of SER Section 2.3.2.3.1 as follows: "The RCIC System is automatically initiated at a predetermined low reactor water level <i>or can be manually initiated."</i>
11	2.3.3.1	2-37	The fourth paragraph of SER Section 2.3.3.1.1 should be revised as follows since all intended functions are identified: "The intended functions of the CCW System within the scope of license renewal include, but are not limited to, the following:"
12	2.3.3.4	2-43	In the below sentence at the top of page 2-43, there is no reference to drawing LRA-M-2082 within the referenced RAI, in fact that drawing designation does not exist for LaSalle. Recommend revising this sentence as follows: "In RAI 2.3.3.4-1, the staff notes on license renewal boundary drawing LRA-M-2082 (F-3) that it could not locate seismic or equivalent anchors between the safety and nonsafety interface and the end of the 10 CFR 54.4(a)(2) scoping boundary on the following drawings:"

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13	2.3.3.11	2-51	The first intended function for the ECW System should be revised as follows to separate out the standard intended function verbiage from the basis for meeting the standard intended function: "Remove residual heat from the reactor coolant system. The ECW System and provides <i>The ECW System</i> provides cooling to equipment that removes decay heat from the reactor during normal operation and accident conditions (10 CFR 54.4(a)(1))."
14	2.3.3.11	2-52	In the Staff Evaluation section RAI 2.3.3.2-2 is discussed. The discussion is correct, however, the wrong RAI number is referenced. The correct RAI number is 2.3.3.11-1.
15	2.3.3.18	2-71	The list of systems that are included in the Process Radiation Monitoring System should include the "service water system effluent radiation monitors" as discussed in LRA Section 2.3.3.18.
16	2.3.3.21	2-76	Section 2.3.3.21.2 of the SER misquotes RAI 2.3.3.21-1 and should be corrected as follows (same comment applies to the discussion for Unit 2): "In RAI 2.3.3.21-1, the staff notes that Unit 1 drawing LR-LAS-M-97-1 shows 10 CFR 54.4(a)(1) piping whose scope changes to 10 CFR 54.4(a)(2), whereas the piping classification changes to "Class C," indicating safety-related <i>ASME Section III-Class 3</i> piping at the following locations:"
17	2.3.4.5.1	2-88	Last bullet on page, recommend adding a sentence stating that the Turbine Test system is installed only on Unit 2 per LRA Section 2.3.4.5 as follows: <i>"This Turbine Test system is only installed on Unit 2."</i>
18	2.4.1.1	2-90	The last sentence of the second paragraph could be misunderstood to imply that there are no items not in scope for license renewal in the Auxiliary Building, since the sentence states that the items listed are evaluated separately. It should be mentioned that there are architectural items in operational support areas that are not in scope.

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19	2.4.1.1	2-90	The second bullet under the intended functions could be interpreted to mean that there would be <i>no</i> physical interaction between safety-related and non-safety related SSCs. The wording used for the first bullet in the Lake Screen House more closely matches the LRA. Recommend wording be changed to, " <i>Provide physical support, shelter, and protection for nonsafety-related SSCs whose failure could prevent satisfactory accomplishment of safety-related functions.</i> "
20	2.4.2.1	2-91	The first bullet under the intended functions is confusing in that it treats not in scope components as a subset of in scope components. It is recommended to split the sentence into two separate sentences as follows: "Provide structural support or restraint to SSCs in scope of license renewal. <i>Provide structural support or restraint to</i> including SSCs that are not in scope of license renewal, to prevent interaction with safety-related SSCs."
21	2.4.3.1	2-93	The second bullet under the intended functions could be interpreted to mean that there would be <i>no</i> physical interaction between safety related and non-safety related SSCs. The wording used for the first bullet in the Lake Screen House more closely matches the LRA. Recommend wording be changed to, " <i>Provide physical support, shelter, and protection for nonsafety-related SSCs whose failure could prevent satisfactory accomplishment of safety-related functions.</i> "
22	2.4.12.1	2-104	In the first paragraph, the list of tanks in the third sentence should include the well water and demineralized water storage tanks, consistent with the first paragraph in LRA Section 2.4.12.
23	2.5.1.1	2-108	In the second to last line of this section, change "... and electric heaters ..." to "... and electric heaters <i>(housing)</i> ..." for alignment with LaSalle component type.
24	2.5.1.2	2-109	Recommend correcting in fifth line in sixth paragraph on the page from "... between the Divisions 1 and 2 ..." to "... between the Divisions <i>Units</i> 1 and 2 ..." The cross tie from the opposite unit's SAT is between units on the same division, as shown on LRA Figure 2.1-2.

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25	2.6	2-111	Recommend deleting the last paragraph in its entirety. It is discussing continuing activities (excluding new ones or enhancements to existing activities) and is focused on implementation of activities for aging management - not scoping and screening.
26	3	3-1	The second sentence in the first introductory paragraph preceding section 3.0 should probably be its own paragraph. The total number of AMPs in the LSCS LRA Appendix B, as submitted is 45. The 46th AMP was added in RAI B.2.1.23-2 response.
27	3.0.3.1	3-11	Delete second to last bullet for Service Level III AMP. This is a plant-specific AMP and is listed in 3.0.3.3 and discussed in 3.0.3.3.1.
28	3.0.3.1.5	3-19	In the last paragraph on page 3-19, recommend clarifying that the example is for <u>Unit 2</u> Category B and C inspections as follows: “The applicant clarified that 25 percent of the Category B and C welds are inspected during each 10-year period and confirmed that during the first 10-year period (2003 through 2012) inspections were performed on 34 Category B welds and 2 Category C welds <i>on Unit 2</i> , consistent with the guidance in BWRVIP-75-A. The applicant also discussed the inspection status and schedule of Unit 2 welds during the current 10-year period (2013 through 2022) by noting that 14 Category B welds and no Category C welds have been inspected so far. Consequently, at least 20 additional Category B welds and 2 Category C welds will need to be inspected by December 31, 2022, in order to meet the guidance in BWRVIP-75-A.”
29	3.0.3.1.7	3-24	In the third paragraph of the Staff Evaluation for FAC element "monitoring and trending," add the removal of hydrazine discussion since this was considered a technical change. Revise as follows: “In the “monitoring and trending” program element, the applicant identified new discussions related to “calibrated lines,” “establishing calibration,” and “maintaining calibration,” and the addition of three new methods for determining wear rates from wall thickness measurements. <i>Also, removal of the hydrazine factor from CHECWORKS™ was discussed.</i> ”

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30	3.0.3.1.11	3-38	<p>The last paragraph on page 3-38, recommend revising as shown below to clarify that only the welds on all drain line connections to the Main Steam Isolation Valves were rewelded and only the drain lines from the MSIVs were instrumented.</p> <p>“By letter dated August 6, 2015, the applicant provided its response to RAI B.2.1.23-2 and stated that the socket weld failures for LSCS, Unit 1, <i>on the drain lines connections to the Main Steam Isolation Valves</i>, occurred after less than 9 months of intermittent service during the initial cycle of the unit. The applicant also stated that the cause for these failures were determined to be improper welding, installation, less-than-optimum preheat treatment, and choice of welding electrodes. The applicant further stated that the corrective actions from these failures included design changes and rewelding all the <i>similar</i> socket welds <i>on the drain line connections to the Main Steam Isolation Valves</i> using improved welding procedures and using instrumentation to verify that abnormal vibrations and frequencies do not exist.”</p>
31	3.0.3.1.18	3-50	<p>The sub-bullet under the bullet for Area Radiation Monitoring System should read: "off gas <i>area</i> radiation monitors," consistent with LRA Appendix B, Section B.2.1.38.</p>
32	3.0.3.1.18	3-50	<p>At the end of the first sentence in the first paragraph following the bullets, the words imply that exposure to an Adverse Localized Environment (ALE) results in increased leakage currents. Exposure to an ALE can result in reduced insulation resistance which can cause an increase in leakage currents. Recommend end of sentence be re-written to read: <i>...moisture, which can result in reduced insulation resistance causing increases in</i> increased leakage currents."</p>
33	3.0.3.1.19	3-53	<p>In the eighth line of the UFSAR Supplement paragraph, the following correction should be made: <i>... at least every 6 years and cable</i> <i>manhole</i> inspections at least annually ... "</p>

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34	3.0.3.1.20	3-54	In lines seven & eight of the first paragraph, "Summary of Technical Information in the Application," the SER is citing materials: various metals used for electrical contacts in the metallic parts of cable connections and is citing environments: air-indoor, controlled or uncontrolled, or air-outdoor as information that is presented in LRA Section B.2.1.41. This information is not presented in LRA Section B.2.1.41. This information is included in the LRA in the associated lines for electrical cable connections in both LRA Table 3.6.1 and Table 3.6.2-1. It is recommended that the citing of B.2.1.41 be deleted or corrected that it is cited in Table 3.6.2-1.
35	3.0.3.1.20	3-54	In the last line of page 3-54 and the first line of 3-55, the last part of the first sentence of this paragraph is intended to be included in the SER <u>for existing programs</u> . The associated words are: "... and that implementation of the program has resulted in the applicant taking corrective actions." This is a new program. It is recommended that this part of the first sentence be deleted.
36	3.0.3.2.9	3-87	Third sentence in Summary of Technical Information in the Application should read: "This program includes visual inspections of no less than 10 percent of each <i>type</i> of the penetration seals at least once per refueling cycle (24 months)," as indicated in LRA section B.2.1.16.
37	3.0.3.2.10	3-93	Second sentence in Enhancement 5 should read; "In this enhancement, the applicant stated it will demonstrate the capability to provide the design pressure and at required flow by performing ... a 5-year frequency," as indicated in LRA section B.2.1.17.
38	3.0.3.2.10	3-94	Enhancement 9, third sentence; NRC added "including the original acceptance test because it is a previously performed test, is identified." to the description of the enhancement. Due to differences in testing alignments, the original acceptance test may not be representative of the current testing arrangement. It is recommended that these words, described above, be deleted from the SER, making the text consistent with Enhancement 9 as described in the response to RAI B.2.1.17-5 in Exelon letter RS-15-171.

Exelon Comments on the Safety Evaluation Report with Open Items (SER)

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39	3.0.3.2.11	3-98	In the second and third line in Enhancement 4, "... and "monitoring and trending" ..." should be deleted. This enhancement's link to element 5 (Monitoring and Trending) was deleted in the response to RAI B.2.1.18-2.

Exelon Comments on the Safety Evaluation Report with Open Items (SER)

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40	3.0.3.2.12	3-100	<p>The LaSalle Fuel Oil Chemistry program includes eight enhancements. SER Section 3.0.3.2.12 for the Fuel Oil Chemistry program combines these into four enhancements. This could be confusing. Consider rewriting to align with the eight enhancements in LRA Appendix A, B, and A.5 for the Fuel Oil Chemistry program. If the SER format will not be changed, the description of enhancement 1 in SER Section 3.0.3.2.12 for the Fuel Oil Chemistry program does not correctly capture the enhancements to the “parameters monitored or inspected” and “detection of aging effects” program elements. Firstly, it should include the diesel fire pump(s) day tanks. Secondly, it identifies the main diesel day tanks and HPCS diesel day tanks as undergoing a periodic (quarterly) sampling and analysis for water and sediment content, particulate concentration, and levels of microbiological organisms. Sampling these day tanks for particulate concentration is not an enhancement and is currently done monthly as a tech spec activity. Recommend the following changes to the enhancement 1 discussion:</p> <p><u>“Enhancement 1.</u> LRA Section B.2.1.19 includes an <i>enhancements</i> to the “parameters monitored/or inspected” and “detection of aging effects” program elements. In this <i>these</i> enhancements, the applicant stated that the diesel generator fuel oil storage tanks, diesel generator day tanks, high pressure core spray (HPCS) diesel tanks and the <i>diesel fire pump(s) day tanks</i> HPCS diesel day tanks will undergo a periodic (quarterly) sampling and analysis for water and sediment content, particulate concentration, and levels of microbiological organisms. <i>Additionally, the diesel generator day tanks and HPCS diesel day tanks will undergo a periodic (quarterly) sampling and analysis for water and sediment content and levels of microbiological organisms.</i> The staff reviewed this enhancement against the corresponding program elements in GALL Report AMP XI.M30 and finds it acceptable because, when it is implemented, it will make the applicant’s AMP program consistent with the GALL Report.”</p>

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41	3.0.3.2.12	3-101	<p>The description of SER Enhancement 3 is worded such that it identifies visual inspection of the tanks as an enhancement. These tanks are already visually inspected at a 10-year frequency. The enhancement is that if during these visual inspections evidence of degradation is identified then the tanks will be volumetrically inspected. Additionally, delete "any" since that verbiage is not included in the enhancement. Recommend the following changes to the Enhancement 3 discussion:</p> <p><u>“Enhancement 3. LRA Section B.2.1.19 includes an enhancement to the “detection of aging effects” program element. <i>The diesel fuel storage tanks, diesel generator day tanks, HPCS diesel fuel storage tanks, and HPCS diesel day tanks are currently visually inspected at a 10 year frequency.</i> In this enhancement, the applicant stated that, for the diesel fuel storage tanks, diesel generator day tanks, HPCS diesel fuel storage tanks, and HPCS diesel day tanks, a visual inspection will be performed and that they will be subjected to a volumetric examination if any evidence of degradation is observed during visual inspection or if visual inspection is not possible. The staff reviewed this enhancement against the corresponding program elements in GALL Report AMP XI.M30 and finds it acceptable because, when it is implemented, it will make the applicant’s AMP program consistent with the GALL Report.”</u></p>
42	3.0.3.3.1	3-144	<p>On page 3-144, “Detection of Aging Effects” last paragraph states: “...Based on its review of the application and review of the applicant’s response to RAI 3.0.3.3.1-2, the staff confirmed that...”</p> <p>The reference RAI appears to be incorrect. We believe the correct reference is RAI B.2.2.1-2.</p>

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43	3.0.3.3.2	3-149	<p>Paragraph near bottom of page 3-149 says: "The staff finds the applicant's "parameters monitored or inspected" program element to be adequate because this program is a condition monitoring program that will use qualified examinations that are able to detect the aging effect." The word "qualified" is misleading. Suggested wording:</p> <p><i>"The staff finds the applicant's "parameters monitored or inspected" program element to be adequate because this program is a condition monitoring program that will use volumetric examination techniques that have been demonstrated to be capable of detecting cracking, or by destructive examination."</i></p>
44	3.0.3.3.2	3-150	<p>Second paragraph on page 3-150 says: "These inspections would be completed during the 6 years before the period of extended operation and would be repeated every 1 year thereafter. The sample size for these inspections would be 50 percent of the susceptible population (five welds)." The "every 1 year thereafter" is incorrect.</p> <p>Exelon's response to RAI B.2.1.23-2 in letter RS-15-193 committed to inspection of 50 percent of the periodic population during the 6 year period prior to the period of extended operation and every 10 years during the period of extended operation.</p> <p>Suggest replacing the above with the following: <i>"These inspections would be completed during the 6 years before the period of extended operation and would be repeated every 10 years during the period of extended operation. The sample size for these inspections would be 50 percent of the susceptible population (five welds)."</i></p>

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45	3.0.3.3.2	3-150	<p>First sentence of last paragraph on page 3-150 says: “The staff noted that the applicant’s plant-specific program incorporates two specific inspection programs, a periodic program for socket welds determined to be most susceptible and a one-time program for the balance of the ASME Code Class 1 small-bore piping, which includes butt welds and socket welds.” The term “determined to be most susceptible” may be misleading.</p> <p>Exelon’s response to RAI B.2.1.23-2 in letter RS-15-193 committed to performing periodic inspection of 50 percent of socket welds that were are associated with the 2005 failure (a total population of 10 welds). As written, the above sentence may mislead the reader into concluding that these 10 welds in the periodic program have been concluded to be the most susceptible in the entire small bore weld population of the Unit 2 program (458 socket welds and 94 butt welds). The 10 welds in the periodic population were selected because these welds may be susceptible to the failure that occurred in 2005. The RAI response offers no conclusions as whether these 10 welds are the most susceptible to failure for the entire population.</p> <p>Suggest above wording be replaced as follows: <i>“The staff noted that the applicant’s plant-specific program incorporates two specific inspection programs, a periodic program for socket welds that may be susceptible to the 2005 failure and a one-time program for the balance of the ASME Code Class 1 small-bore piping, which includes butt welds and socket welds.”</i></p>
46	3.0.4.3	3-154	<p>The first line of this paragraph states: “ ... plant-specific AMPs and their associated quality assurance attributes ... ” The term plant-specific could be interpreted as meaning the LaSalle AMPs that are not consistent with GALL, whereas the apparent intent is to refer to the entire group of LaSalle AMPs. Therefore, it is recommended that the term "plant-specific" be changed to "applicant's."</p>

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47	3.0.5.2.2	3-155	The second sentence of the paragraph is a mischaracterization of LaSalle's LRA. Although other industry LRA applicants inserted "pointers" from each of the LRA Appendix B AMP discussions to point to LRA Section B.1.4, which provides the description of the process for review of future plant-specific and industry operating experience, the LaSalle LRA does not do this. It is recommended that this sentence be deleted.
48	3.0.5.2.4	3-157	The Exelon/LaSalle OE Program already conforms to LR-ISG-2011-05. Therefore, the following revision is recommended: "The staff finds the applicant's operating experience review processes acceptable because after enhancement these processes will include screening of..."
49	3.0.5.2.4	3-159	An incorrect reference is used in the first line of the third paragraph. Change LRA Section that cites training from "B.1.4" to " A.1.6. "
50	3.0.5.2.4	3-159	The Exelon/LaSalle OPEX program already conforms to LR-ISG-2011-05. It is recommended that the second sentence of the fourth paragraph on the page be changed to read as follows: "The staff also determined that the applicant has demonstrated that its training program, when enhanced, will covers age-related degradation and aging management topics and that its ongoing actions of training and ongoing review of OPEX are in place will commence after the LRA is submitted. "
51	3.0.5.2.4	3-159	LaSalle implemented aging management related improvements to its Operating Experience program prior to submittal of the LRA. The second sentence of the section entitled, "Reporting Operating Experience to the Industry," describes the establishment of expectations and guidelines as future activities. This was completed prior to submittal of the LRA. Therefore, it is recommended that the sentence be changed as follows: "...the applicant will have has established...", in accordance with the last sentence in LRA Section A.1.6.

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52	3.0.5.3	3-160	Age related OE considerations for PEO have already been incorporated into procedures. No enhancements are required. Therefore, it is recommended that the last sentence in the first paragraph of Section 3.0.5.3, which starts with, "It also identifies enhancements..." be deleted to reflect this.
53	3.0.5.3	3-160	<p>The second paragraph of Section 3.0.5.3 seems to imply that LRA Section A.1.6 specifically cites several aging management aspects (e.g., SSCs, materials, environments, aging effects, etc.) that will be considered in the ongoing review of operating experience. LRA Section A.1.6 does not specifically discuss these; however, LRA Section A.1.6 does state that the Exelon fleet OPEX program that is implemented at LSCS conforms to the recommendations of LR-ISG-2011-05, "Ongoing Review of Operating Experience," which contains this provision. It is recommended that rather than citing these specifics in this paragraph, a statement be added that the LaSalle LRA Section A.1.6 is highly consistent with the content for the UFSAR Supplement recommended in LR-ISG-2011-05, Appendix A, page A-1 (SRP Table 3.0-1 information).</p> <p>As another option, it is recommended that the second paragraph be revised to read consistent with LRA Section A.1.6, as follows: "The staff reviewed LRA Section A.1.6 and found that the summary description of the ongoing evaluation of operating experience related to aging management <i>states that LSCS will consider age-related degradation or aging management impacts.</i> (a) SSCs, (b) materials, (c) environments, (d) aging effects, (e) aging mechanisms, and (f) AMPs, and that procedures will be revised to specify these evaluations."</p>
54	3.2.2.3.4	3-224	SER Section 3.2.2.3.4 discusses nickel alloy flow devices exposed to treated water. It refers to plant specific note 2 in LRA Table 3.2.2-4. The correct reference is plant specific note 3.
55	3.3.2, Table 3.3-1	3-246	LRA line item 3.3.1-120 was reviewed by the staff in an RAI, as documented in SER section 3.3.2.1.9. Consider referencing this SER section to this line item in SER table 3.3-1.

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56	3.3.2.1.5	3-259	<p>Third paragraph on page 3-259 says: “The applicant stated that, because of tight clearances, the bolting on the traveling screens is not accessible; however, because these bolts are similar to the frame bolting and are exposed to the same environment, the inspections performed on the framework bolting would be indicative of the condition of the inaccessible bolting.”</p> <p>This is inconsistent with what was stated in the RAI response.</p> <p>Suggest replacing the above sentence with the following: <i>“The applicant stated that, because of tight clearances, the bolt heads on the outside of traveling screens are not accessible; however, because these bolts and associated nuts are accessible on the inside of the framework and are exposed to the same environment, the inspections performed on the portions of the bolts and nuts inside the framework would be indicative of the condition of the inaccessible portions of the bolting.”</i></p>
57	3.3.2.1.7	3-261	<p>In the top paragraph, part of the staff’s basis for the program substitution is that the frequency of the Fire Protection program (2-years) will be greater than the frequency of the External Surfaces program (10-years). This is incorrect. The relevant portions of these programs are on a two-year frequency; the justification for acceptability of frequency should be that they are the same.</p> <p>As discussed in LRA Appendix B, Section B.2.1.24, the External Surfaces program has two elements: 1) visual inspections for corrosion during plant walkdowns on a 2-year frequency, and 2) inspections for corrosion under insulation on a 10-year frequency. The aspect that is being substituted with the Fire Protection program is for corrosion of fire doors which would fall under the 2-year program scope; therefore the corrosion-under-insulation comparison is not relevant.</p>

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58	3.5.2.1.5	3-325	<p>Regarding the inspection of cranes, LRA Section B.2.1.14 states: "Periodic inspections are performed annually. For handling systems that are infrequently in service, such as those only used during refueling outages, periodic inspections may be deferred until just prior to use."</p> <p>Not all infrequently used handling systems are associated with refueling activities and therefore are inspected just prior to use (e.g., diesel generator building monorails).</p> <p>It is recommended that the last sentence in the third paragraph of SER Section 3.5.2.1.5 be revised as follows: "Accordingly, periodic inspections are performed annually, and for handling systems that are infrequently in service, such as those only used during refueling outages, periodic inspections are performed at least just before use during refueling outages."</p> <p>This comment also applies to SER Section 3.5.2.1.6 on page 3-327, last sentence of second paragraph.</p>
59	3.5.2.2.2, Item 2	3-338	<p>In the first paragraph of item 2, the end of the next to last sentence is incomplete. Consider revising as follows: "... in accessible areas as the indicator <i>of conditions at inaccessible areas.</i>"</p>
60	3.5.2.2.2	3-343	<p>In the first paragraph of item 2, the end of the next to last sentence is incomplete. Consider revising as follows: "... in accessible areas as the indicator <i>of conditions at inaccessible areas.</i>"</p>
61	3.6.2.2.2	3-361	<p>Add table item 3.6.1-3 to the first sentence as follows: "... LRA Table 3.6.1, item 3.6.1-2 <i>and item 3.6.1-3,</i> addresses ... "</p>
62	3.6.2.2.2	3-361	<p>In the third line of the second paragraph delete: "and reduced insulation resistance." Reduced insulation resistance is not related to mechanical wear caused by wind blowing.</p>
63	3.6.2.2.3	3-363	<p>It is recommended that the first three full paragraphs on this page use a consistent commodity "name" for line item 3.6.1-5, i.e., transmission connectors.</p>

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64	4.1.2.1.2	4-5	<p>The second sentence of the third paragraph states that the applicant relies on the application of coatings and corrosion inhibitors to achieve this objective (to justify the structural integrity of the metallic containment components against the consequences of corrosion-induced aging effects). However, LRA Section B.2.1.36, second paragraph, states: "Service Level I coatings will prevent or minimize the loss of material due to corrosion but these coatings are not credited for managing the effects of corrosion for the carbon steel containment liners and components."</p> <p>Therefore, since LaSalle does not credit coatings or corrosion inhibitors for preventing corrosion of the containment components, the second sentence from SER section 4.1.2.1.2 should be deleted. The first sentence alone provides the basis for acceptability of No TLAA in this case.</p>
65	4.3.3.2	4-55	<p>In the first paragraph, last sentence, the term "CUFen" used in two places should be replaced by the term "CUF", as shown below, since the determination of limiting locations is performed by comparing ASME CUF values within the stress reports of the affected system and/or component prior to development of CUFen values for the selected components. "The LRA states that the bounded location must be affected by the same transients as the analyzed location; must have a lower-CUFen <i>CUF</i> value than the CUFen <i>CUF</i> value of the analyzed location."</p>

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#	Section #	Page #	Comment
66	4.3.3.2	4-55	<p>In the second paragraph, the term "CUFen" used in five places should be replaced by the term "CUF", as shown below, since the determination of limiting locations is performed by comparing ASME CUF values within the stress reports of the affected system and/or component prior to development of CUFen values for the selected components.</p> <p>"The staff noted that in order to have a meaningful comparison of CUFen <i>CUF</i> values to determine the most limiting component (or leading location) by using the highest CUFen <i>CUF</i> value, it is important that the CUFen <i>CUF</i> values were assessed similarly (e.g., amount of rigor in calculating CUFen <i>CUF</i>) and used the same fatigue curves as those in ASME Code, Section III, Appendix I. The staff noted that through the course of plant operation, it is possible that CUFen <i>CUF</i> values for specific components were re-evaluated as part of power uprates..."</p>
67	4.3.3.2	4-55	<p>In the third paragraph, the term "CUFen" used in four places in the following sentences should have been the term "CUF":</p> <p>"By letter dated July 7, 2015, the staff issued RAI 4.3.3-1, requesting that the applicant confirm that the CUFen <i>CUF</i> values that were compared with each other in a given system to identify the location with the highest CUFen <i>CUF</i> value were assessed similarly (e.g., amount of rigor in calculating CUFen <i>CUF</i>) and used the same fatigue curves to provide a meaningful comparison. The staff also requested that the applicant provide the basis for ranking or comparing the CUFen <i>CUF</i> values..."</p>
68	4.3.3.2	4-56	<p>In the third paragraph, last sentence, the term "CUFen" used in one place in the following sentence should have been the term "CUF":</p> <p>"The staff finds the applicant's response acceptable because (a) the applicant provided an adequate basis to ensure that its comparison of locations was performed on an equivalent basis and (b) the applicant used a conservative approach to determine limiting locations by selecting locations that had the highest CUFen <i>CUF</i> value and bounding Fen values."</p>

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#	Section #	Page #	Comment
69	4.3.3.2	4-57	In the third paragraph, 4th sentence, the term "CUFen" used in one place in the following sentence should have been the term "CUF": "The applicant applied its methodology to select the limiting location and determined that the stainless steel head spray nozzle outer flange has both a higher CUFen <i>CUF</i> value, a higher bounding Fen multiplier, and it was performed with a more rigorous fatigue analysis than the carbon steel piping locations."