



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 9, 2012

LICENSEE: Exelon Generation Company, LLC

FACILITY: Limerick Generating Station

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON DECEMBER 14, 2011, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND EXELON GENERATION COMPANY, LLC, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE LIMERICK GENERATING STATION, LICENSE RENEWAL APPLICATION (TAC. NOS. ME6555 AND ME6556)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Exelon Generation Company, LLC held a telephone conference call on December 14, 2011, to discuss and clarify the staff's requests for additional information (RAIs) concerning the Limerick Generating Station, license renewal application. The telephone conference call was useful in clarifying the intent of the staff's RAIs.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the RAIs discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

A handwritten signature in black ink, appearing to read "Robert F. Kuntz".

Robert F. Kuntz, Senior Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosures:

- 1 List of Participants
2. List of Requests for Additional Information

cc w/encls: Listserv

TELEPHONE CONFERENCE CALL
LIMERICK GENERATING STATION
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
DECEMBER 14, 2011

PARTICIPANTS

AFFILIATIONS

Robert Kuntz	Nuclear Regulatory Commission (NRC)
Billy Rogers	NRC
Stacie Sakai	NRC
Christopher Wilson	Exelon Generation Company, LLC (Exelon)
Gene Kelly	Exelon
Shannon Rafferty-Czincila	Exelon
Mark Miller	Exelon
James Jordan	Exelon
Ronald Hess	Exelon
John Hufnagel	Exelon
Mark Kowalski	Exelon
David Clohecy	Exelon
Wayne Choromanski	Exelon
Albert Fulvio	Exelon

DRAI 2.1-1

Background

10 CFR 54.4, "Scope," states, in part,

- (a) Plant systems, structures and components within the scope of this part are;
 - (1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:
 - (i) The integrity of the reactor coolant pressure boundary;
 - (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
 - (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.

Issue

During the scoping and screening methodology audit, performed on-site September 19-23, 2011, the staff reviewed the license renewal application and license renewal implementing documents and had discussions with the applicant to determine the applicant's approach for identifying safety-related structures, systems and components (SSCs) included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1). The staff determined that the applicant had used the "Q" field in the component database (CRL) to identify safety-related SSCs within the scope of license renewal in accordance with 10 CFR 54.4(a)(1). However, the applicant's procedure (CC-MA-304) used to populate the "Q" field in the CRL, refers to 10 CFR Part 100 as opposed 10 CFR 50.67 (Limerick Generating Station (LGS) is an alternate source term plant such that 10 CFR 50.67 is applicable).

Request

Provide a description of the process used to evaluate components or systems to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1)(iii). Perform a review of this issue and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(1)(iii) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which aging management reviews (AMR) were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging management programs, as applicable, to be credited for managing the identified aging effects.

Discussion: The applicant indicated that the request is clear. This DRAI will be sent as a formal RAI.

DRAI 2.1-2

Background:

10 CFR 54.4, "Scope," states, in part,

- (a) Plant systems, structures and components within the scope of this part are;
 - (1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:
 - (i) The integrity of the reactor coolant pressure boundary;
 - (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
 - (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.
 - (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the functions identified in (a)(1)(i), (ii), or (iii) of this section.
 - (3) All systems, structures, and components relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48), environmental qualification (10 CFR 50.49), pressurized thermal shock (10 CFR 50.61), anticipated transients without scram (10 CFR 50.62), and station blackout (10 CFR 50.63).

Issue

During the scoping and screening methodology audit, the staff reviewed the license renewal application, license renewal implementing documents and applicable sections of the Limerick Generating Station (LGS) updated final safety analysis report (UFSAR). The staff determined that several plant systems discussed in the LGS UFSAR are not identified in the License Renewal Application (LRA). Discussions with the applicant indicated that systems nomenclature had been organized to correspond with the system information contained in NUREG-1801, "Generic Aging Lessons Learned (GALL) Report."

Request

Provide a description of the process used to identify systems to be included within the scope of license renewal in accordance with 10 CFR 54.4(a) and provide a discussion on the process used to identify systems listed in the UFSAR with system names discussed in the GALL Report. Perform a review of this issue and indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which AMRs were conducted or any additional information related to material and environment combinations. For each structure and component, describe the aging

management programs AMP, as applicable, to be credited for managing the identified aging effects

Discussion:

The applicant indicated that the request is clear. This DRAI will be sent as a formal RAI.

DRAI 2.1-3

Background

10 CFR 54.4, "Scope," states, in part,

- (a) Plant systems, structures and components within the scope of this part are;
 - (1) Safety-related systems, structures, and components which are those relied upon to remain functional during and following design-basis events (as defined in 10 CFR 50.49 (b)(1)) to ensure the following functions:
 - (i) The integrity of the reactor coolant pressure boundary;
 - (ii) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
 - (iii) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 10 CFR 50.34(a)(1), 10 CFR 50.67(b)(2), or 10 CFR 100.11, as applicable.
 - (2) All nonsafety-related systems, structures and components whose failure could prevent satisfactory accomplishment of any of the functions identified in (a)(1)(i), (ii), or (iii) of this section.

Issue

During the scoping and screening methodology audit, the staff reviewed the license renewal application, license renewal implementing documents and applicable sections of the UFSAR. The staff determined that although the LRA shows the auxiliary boiler building is in scope based on 10 CFR 54.4(a)(2) requirements due to its location above the auxiliary boiler pipe tunnel (which contains safety-related pipe), the adjacent lube oil building, also located above the auxiliary boiler pipe tunnel, is not included within the scope of license renewal.

Request

Perform a review of this issue and provide a discussion and basis for not including the nonsafety-related lube oil building, located above the auxiliary boiler pipe tunnel, within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list

those structures and components for which AMR were conducted or any additional information related to material and environment combinations. For each structure and component, describe the AMP, as applicable, to be credited for managing the identified aging effects.

Discussion:

The applicant indicated that the question is clear. However, the staff will add that the auxiliary boiler building is in scope for an (a)(2) function due to its proximity to the reactor enclosure as well as being located above the auxiliary boiler pipe tunnel. Therefore the issue part of the RAI will be revised to say:

Issue

During the scoping and screening methodology audit, performed on-site September 19-23, 2011, the staff reviewed the license renewal application, license renewal implementing documents and applicable sections of the UFSAR. The staff determined that although the LRA shows the auxiliary boiler building is in scope for an (a)(2) intended function due to its proximity to the reactor enclosure and its location above the auxiliary boiler pipe tunnel (which contains SR pipe), the adjacent lube oil building, also located above the auxiliary boiler pipe tunnel, is not included within the scope of license renewal.

The revised request will be sent as a formal RAI.

DRAI 2.1-4

Background

LRA Section 2.1.5.2 states nonsafety-related SSCs attached to safety-related SSCs are in the scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic (or equivalent) anchor past the safety-related/nonsafety related interface.

LRA Section 2.0, "Scoping and Screening Methodology for Identifying Structures and Components Subject to Aging Management Review, and Implementation Results," states that the scoping and screening methodology is consistent with the guidelines presented in NEI 95-10, "Industry Guidelines for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," Revision 6.

NEI 95-10 defines equivalent anchor as a combination of restraints or supports such that the nonsafety-related piping and associated structures and components attached to safety related piping is included in scope up to a boundary point that encompasses at least six supports (two in each of three orthogonal directions).

Issue

During the scoping and screening methodology audit, the staff reviewed the license renewal application, license renewal implementing documents, license renewal drawings and applicable sections of the UFSAR. During the review of the applicants drawing and discussions with the applicant, the staff determined that when the applicant could not identify the required supports

to develop an equivalent anchor (six in total) prior to a branch connection in the nonsafety-related pipe attached to safety-related SCs, the applicant did not consistently identify the remaining required supports on all branch connections. Specifically, the applicant stated that in some cases the branch lines and supports are included within the scope of license renewal and other cases are not included within the scope of license renewal.

Request

Perform a review of this issue and provide a discussion and the basis for the position of not including nonsafety-related pipe, attached to safety-related SCs, up to and including the first anchor or bounding condition, within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which AMR were conducted or any additional information related to material and environment combinations. For each structure and component, describe the AMP, as applicable, to be credited for managing the identified aging effects.

Discussion:

The applicant indicated that the request is clear. This DRAI will be sent as a formal RAI.

DRAI 2.1-5

Background

LRA Section 2.1.3.3, "10 CFR 54.4(a)(2) Scoping Criteria," states the following:

The basis document describes the LGS [Limerick Generating Station] approach to scoping of nonsafety-related systems with a potential for physical or spatial interaction with safety-related SSCs. LGS chose to implement the preventive option as described in NEI 95-10. The basis document provides appropriate guidance to assure that license renewal scoping for 10 CFR 54.4(a)(2) met the requirements of the license renewal rule and NEI 95-10.

LRA Section 2.1.5.2 states that nonsafety-related SSCs attached to safety-related SSCs are in the scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic (or equivalent) anchor past the safety-related/nonsafety-related interface.

NEI 95-10, Appendix F states the following:

For nonsafety-related SSCs directly connected to safety-related SSCs (typically piping systems), the nonsafety piping and supports, up to and including the first equivalent anchor beyond the safety/nonsafety interface, are within the scope of license renewal per 54.4(a)(2).

Issue

During the scoping and screening methodology the staff identified nonsafety-related pipe attached to safety-related SCs where the applicant had determined not to include any of the attached nonsafety-related pipe up to and include an anchor or bounding condition. The applicant stated that an anchor at the nonsafety-related/safety-related interface (or very close to the interface, on the safety-related side of the interface) had been identified as the last anchor within the scope of license renewal.

Request

Perform a review of this issue and provide a discussion and basis for the position of not including nonsafety-related pipe, attached to safety-related SCs, up to and including the first anchor or bounding condition within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which AMR were conducted or any additional information related to material and environment combinations. For each structure and component, describe the AMP, as applicable, to be credited for managing the identified aging effects.

Discussion:

The applicant indicated that the source of the request was unclear. Therefore, the issue statement will be revised to state:

Issue

During the scoping and screening methodology audit staff reviewed the applicant's implementing procedure that describes the process used to identify nonsafety-related SSCs, whose failure could potentially impact the performance of the intended function of safety-related SSCs, for inclusion within the scope of license renewal. The staff determined that the applicant's implementing procedure, when discussing nonsafety-related pipe directly attached to safety-related SCs, does not require that a portion of the nonsafety-related pipe (and applicable anchors or bounding conditions on the nonsafety-related side of the interface) be included within the scope of license renewal. Instead, the implementing procedure allows for an anchor directly at the nonsafety-related/safety-related interface, or close to the interface (on the safety-related side of the interface) to be used as the last anchor within the scope of license renewal.

The revised request will be sent as a formal RAI.

DRAI 2.1-6

Background

LRA Section 2.1.5.2 states that nonsafety-related SSCs attached to safety-related SCs are in the scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic (or equivalent) anchor or bounding condition past the safety-related/nonsafety-related interface. LRA Section 2.1.5.2 also states: (1) for fluid-filled nonsafety-related with the potential for spatial interaction it is assumed that nonsafety-related SSCs within these structures may be located in proximity to safety-related SSCs and included within the scope of license renewal and (2) there may be selected rooms within the structure that do not contain any safety-related components within the room.

Issue

During the scoping and screening methodology audit, the applicant stated that if the first anchor or bounding condition was determined to be beyond the area of potential spatial interaction for spray or leakage within the structure or room (space), the portion of nonsafety-related pipe, attached to a safety-related SC, included within the scope of license renewal was continued outside the space, up to and including an identified anchor or bounding condition. However, the applicant stated that if the anchor or bounding condition was within the space, the applicant included the pipe up to the boundary of the space, but did not specifically identify the anchor or bounding condition. The staff was not able to determine the process used by the applicant to confirm that an anchor or bounding condition existed within a space, if an anchor or bounding condition was not specifically identified.

Request

Perform a review of this issue and provide a discussion on the process used to verify that an anchor or bounding condition exists within the area of potential spatial interaction or nonsafety-related pipe attached to safety-related SCs, and therefore no additional pipe, anchors or bounding conditions need to be included within the scope of license renewal outside the area of potential spatial interaction. Indicate if the review concludes that use of the scoping methodology precluded the identification of SSCs which should have been included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a)(2) criteria. List any additional SSCs included within the scope as a result of your efforts, and list those structures and components for which AMR were conducted or any additional information related to material and environment combinations. For each structure and component, describe the AMP, as applicable, to be credited for managing the identified aging effects.

Discussion:

The applicant indicated that the request is clear. This DRAI will be sent as a formal RAI.

SUBJECT: Summary of Telephone Conference Call conducted on December 13, 2011

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RidsNrrDir Resource

LICENSEE: Exelon Generation Company, LLC

FACILITY: Limerick Generating Station

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON DECEMBER 14, 2011, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND EXELON GENERATION COMPANY, LLC, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE LIMERICK GENERATING STATION, LICENSE RENEWAL APPLICATION (TAC. NOS. ME6555 AND ME6556)

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Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the RAIs discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

/RA/

Robert F. Kuntz, Senior Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosures:

1. List of Participants
2. List of Requests for Additional Information

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