March 9, 2012

Mr. Michael P. Gallagher
Vice President, License Renewal Projects
Exelon Generation Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE LIMERICK GENERATING STATION, UNITS 1 AND 2, LICENSE RENEWAL APPLICATION (TAC NOS. ME6555 AND ME6556)

Dear Mr. Gallagher:

By letter dated June 22, 2011, Exelon Generation Company, LLC submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew the operating licenses for Limerick Generating Station, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

These requests for additional information (RAIs) were discussed with Christopher Wilson, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me by telephone at 301- 415-3733 or by e-mail at Robert.Kuntz@nrc.gov.

Sincerely,

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

Enclosure:
Requests for Additional
Information

cc w/encl: Listserv

RAI B.2.1.33-2

Background

GALL Report Aging Management Program (AMP) XI.S4, "10 CFR Part 50 Appendix J" program, in "detection of aging effects," program element states that while the calculation of leakage rates and satisfactory performance of containment leakage rate testing demonstrates the leak-tightness and structural integrity of the containment, it does not by itself provide information that would indicate that aging degradation has initiated or that the capacity of the containment may have been reduced. The NRC through two Information Notices (INs) identified conditions that could impact leak tightness and aging degradation of the containment boundary pressure-retaining systems and components (SCs) by line vibrations and other external loadings. Information Notices, IN 2005-23 "Vibration Induced Degradation of Butterfly Valves" and IN 2006-15 "Vibration Induced Degradation and Failure of Safety-Related Valves," have been issued to plant's describing circumstances which aside from valve malfunctioning and leakage could also include accelerated aging, degradation, cracking, and loss of function in various systems penetrating the containment, including seals and gaskets the condition of which are to be monitored by the 10 CFR Part 50, Appendix J program.

Issue

During the audit a search of the plant's operating experience database indicated that Limerick Generating Station's (LGS), Unit 2 main steam isolation valve (MSIV) experienced vibration and or shuddering. Although the staff noted that the issue was resolved, the staff discussed with the applicant that such vibrations within proximity to the containment boundary could damage pressure-retaining components. The staff referenced the above INs and further noted to the applicant that effects of vibration could impact the integrity of SCs associated with Type B and C tests, including the inspection intervals of such components.

Request

Discuss how IN 2005-23 and IN 2006-15 have been dispositioned and how the 10 CFR Part 50, Appendix J program will account for the recommendations in those INs for potentially affected SCs that could potentially compromise the containment pressure boundary integrity during the period of extended operation.

RAI B.2.1.33-3

Background

GALL Report AMP XI.S4, "10 CFR Part 50, Appendix J," in its "scope of program," program element states that the scope of the program includes all containment boundary pressure-retaining SCs. The Updated Final Safety Analysis Report (UFSAR) lists the containment components (penetrations and valves) subject to Type B or C testing as required by 10 CFR Part 50, Appendix J. The UFSAR also states that the Technical Requirements Manual (TRM) contains the plant's testing requirements. The TRM as well has a list of the components subject to 10 CFR Part 50, Appendix J testing.

Issue

During the audit the staff noted a condition report which stated that there are discrepancies between the UFSAR and the TRM documentation on implementing procedures and testing for the 10 CFR Part 50 Appendix J testing. Although these differences in testing procedures are being tracked by the applicant, it is unclear to the staff for the "scope of program," program element, which document, the UFSAR or the TRM, the applicant will use for testing of SCs during the period of extended operation to meet the recommendations for the 10 CFR Part 50, Appendix J program.

Request

1. State which document, UFSAR or the TRM, will be used for testing of SCs during the period of extended operation to meet the "scope of program," program element of 10 CFR Part 50, Appendix J program.

2. Update the LRA B.2.1.33 10 CFR Part 50, Appendix J program to indicate the document to be followed during the implementation of the 10 CFR Part 50 Appendix J program testing.

RAI 4.1-2

Background and Issue:

10 CFR 54.21(c) indicates that license renewal applicants must include a list of time-limited aging analyses (TLAA), as defined in 10 CFR 54.3 and the TLAA must be dispositioned in accordance with 10 CFR 54.21(c)(1). The response to RAI BWRVIP-1, in a letter dated February 15, 2012, included a new Appendix C to the LGS LRA to address action items in all applicable BWRVIP reports credited for aging management.

License Renewal Action Item No. 14 for BWRVIP-74-A states:

> Components that have indications that have been previously analytically evaluated in accordance with sub-section IWB-3600 of Section XI to the ASME Code until the end of the 40-year service period shall be re-evaluated for the 60-year service period corresponding to the LR term.

A commitment (Commitment No. 47) was provided in response to Action Item No. 14, to re-evaluate the flaw in the LGS, Unit 1 reactor pressure vessel (RPV) nozzle to safe-end weld VRR-1RD-1A-N2H in accordance with ASME Code Section XI, subsection IWB-3600 for the 60-year service period corresponding to the license renewal term.

The response did not include a justification of why this analysis was not identified as a TLAA in the LRA in accordance with 10 CFR 54.21(c)(1). In addition, the commitment to perform the analysis at a later date does not demonstrate an adequate evaluation of the TLAA.

Request:

Clarify how the flaw evaluation of the LGS, Unit 1 RPV nozzle to safe-end weld VRR-1RD-1A-N2H compares to the six criteria for TLAAs in 10 CFR 54.3, and justify whether or not the flaw evaluation should be identified as a TLAA for the LRA under the TLAA identification requirements of 10 CFR 54.21(c)(1). If the analysis needs to be identified as a TLAA, provide necessary information and LRA revision to support the TLAA disposition.

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Sincerely,

/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

Enclosure:
Requests for Additional Information

cc w/encl: Listserv

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NAME	YEdmonds	RKuntz	DMorey	RKuntz
DATE	03/ 05 /12	03/ 05 /12	03/ 05 /12	03/ 09 /12

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ENCLOSURE

Letter to M. Gallagher from R Kuntz dated March 09, 2012

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE. LIMERICK GENERATING STATION LICENSE RENEWAL APPLICATION (TAC NOS. ME6555, ME6556)

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