

January 14, 2011

U.S. Nuclear Regulatory Commission  
ATTN: 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 Request for Additional Information  
License Amendment Request  
Proposed Technical Specification Allowed Outage Time Extensions to Support  
Residual Heat Removal Service Water Maintenance

- References:
1. Letter from Pamela B. Cowan (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "License Amendment Request, Proposed Changes to Technical Specifications Sections 3.5.1, 3.6.2.3, 3.7.1.1, 3.7.1.2 and 3.8.1.1 to Extend the Allowed Outage Times," dated March 19, 2010.
  2. Letter from Peter Bamford, U.S. Nuclear Regulatory Commission, to Michael J. Pacilio, Exelon Nuclear, "Limerick Generating Station, Units 1 and 2 - Request for Additional Information Regarding Proposed Technical Specification Allowed Outage Time Extensions to Support Residual Heat Removal Service Water (RHRSW) Maintenance (TAC Nos. ME3551 and ME3552)," dated September 30, 2010.
  3. Letter from Pamela B. Cowan (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information, License Amendment Request, Proposed Technical Specification Allowed Outage Time Extensions to Support Residual Heat Removal Service Water Maintenance," dated October 29, 2010.
  4. Letter from Peter Bamford, U.S. Nuclear Regulatory Commission, to Michael J. Pacilio, Exelon Nuclear, "Limerick Generating Station, Units 1 and 2 - Request for Additional Information Regarding Proposed Technical Specification Allowed Outage Time Extensions to Support Residual Heat Removal Service Water (RHRSW) Maintenance (TAC Nos. ME3551 and ME3552)," dated December 14, 2010.

In Reference 1, Exelon Generation Company, LLC (Exelon) requested changes to the Technical Specifications (TS), Appendix A of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively. The proposed changes would extend the TS allowed outage time (AOT) for the Unit 1 and Unit 2 Suppression Pool Cooling (SPC) mode of the Residual Heat Removal (RHR) system, the Residual Heat Removal Service Water (RHRSW) system, the Emergency Service Water (ESW) system, and the A.C. Sources -

Operating (Emergency Diesel Generators) from 72 hours to seven (7) days in order to allow for repairs of the RHRSW system piping.

The NRC reviewed the license amendment request and identified the need for additional information in order to complete its evaluation of the amendment request. In Reference 2, the NRC formally issued a request for additional information (RAI). In Reference 3, Exelon provided its response to the RAI.

After review of Exelon's response to the RAI, the NRC identified the need for additional information in order to complete its evaluation of the amendment request. On December 8, 2010, the draft question was sent to Exelon to ensure that the question was understandable, the regulatory basis for the question was clear, and to determine if the information was previously docketed. In Reference 4, the NRC formally issued the RAI. The attachment to this letter provides a restatement of the question along with Exelon's response.

Exelon has concluded that the information provided in this response meets the intent of the original submittal (Reference 1) and does not impact the conclusions of the: 1) Technical Analysis, 2) No Significant Hazards Consideration under the standards set forth in 10 CFR 50.92(c), or 3) Environmental Consideration as provided in the original submittal (Reference 1).

There are no regulatory commitments contained in this letter.

If you have any questions or require additional information, please contact Glenn Stewart at 610-765-5529.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 14th day of January 2011.

Respectfully,



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David P. Helker  
Manager, Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

Attachment: Response to Request for Additional Information

cc:	Regional Administrator - NRC Region I	w/ attachment
	NRC Senior Resident Inspector - Limerick Generating Station	"
	NRC Project Manager, NRR - Limerick Generating Station	"
	Director, Bureau of Radiation Protection - Pennsylvania Department	"
	of Environmental Protection	"

**ATTACHMENT**

**License Amendment Request**

**Limerick Generating Station, Units 1 and 2  
Docket Nos. 50-352 and 50-353**

**Proposed Technical Specification Allowed Outage Time Extensions  
to Support Residual Heat Removal Service Water Maintenance**

**Response to Request for Additional Information**

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION  
PROPOSED TECHNICAL SPECIFICATION ALLOWED OUTAGE TIME EXTENSIONS  
TO SUPPORT RESIDUAL HEAT REMOVAL SERVICE WATER MAINTENANCE**

In Reference 1, Exelon Generation Company, LLC (Exelon) requested changes to the Technical Specifications (TS), Appendix A of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively. The proposed changes would extend the TS allowed outage time (AOT) for the Unit 1 and Unit 2 Suppression Pool Cooling (SPC) mode of the Residual Heat Removal (RHR) system, the Residual Heat Removal Service Water (RHRSW) system, the Emergency Service Water (ESW) system, and the A.C. Sources - Operating (Emergency Diesel Generators) from 72 hours to seven (7) days in order to allow for repairs of the RHRSW system piping.

The NRC reviewed the license amendment request and identified the need for additional information in order to complete its evaluation of the amendment request. In Reference 2, the NRC formally issued a request for additional information (RAI). In Reference 3, Exelon provided its response to the RAI.

After review of Exelon's response to the RAI, the NRC identified the need for additional information in order to complete its evaluation of the amendment request. On December 8, 2010, the draft question was sent to Exelon to ensure that the question was understandable, the regulatory basis for the question was clear, and to determine if the information was previously docketed. In Reference 4, the NRC formally issued the RAI. The question is restated below along with Exelon's response.

1. By letter dated September 30, 2010 (ADAMS Accession No. ML102710368), question number 3, the NRC requested additional information regarding the operability of systems supplied by the one loop of ESW declared inoperable to support the planned RHRSW maintenance activities. By letter dated October 29, 2010 (ADAMS Accession No. ML103060379), the licensee responded as follows regarding the Control Room Chillers:

Inoperability of an ESW loop does not affect operability of the Main Control Room Chillers. While Limerick has two Main Control Room Chillers (one supplied from each ESW loop), the chillers are not governed by any TS. Therefore, a chiller would not be declared inoperable as a result of the associated ESW loop being administratively declared inoperable. Since either loop being declared inoperable will be available and protected, the affected loop would be expected to supply cooling water to its associated chiller as required.

Based on a review of LGS, Unit 1 and 2, TS Definition 1.25, Limiting Condition for Operation (LCO) 3.7.1.2, Action a.3, LCO 3.7.2, and Surveillance Requirement 4.7.2.1.a, as well as various descriptions provided in the LGS Updated Final Safety Analysis Report for the Control Room Chillers, this does not appear to be a correct application of the LGS TS regarding Control Room Emergency Air Treatment System, LCO 3.7.2, which the chillers support.

Please correct the response to NRC letter dated September 30, 2010, question 3, regarding the Control Room Chillers, or provide specific justification for not entering the TS Action statement for Control Room Emergency Air Treatment System [CREFAS], LCO 3.7.2, when one loop of ESW is declared inoperable.

### **Response**

During the planned RHRSW maintenance activities being addressed by the original amendment request (Reference 1), in accordance with the ESW TS 3.7.1.2, Action a.3, a control room chiller will be administratively declared nonfunctional when the ESW loop that provides cooling water to that chiller is administratively declared inoperable for the RHRSW system piping repairs. As a result, one subsystem of CREFAS will be administratively declared inoperable, and the 7-day Action required by TS 3.7.2.a.1 will be entered when one loop of ESW is administratively declared inoperable during the RHRSW system piping repairs.

As discussed in the original amendment request (Reference 1) and in the response to the previous RAI (Reference 3), during the planned RHRSW maintenance activities, the affected ESW loop will be administratively declared inoperable, but will continue to be available and protected so that it is fully functional and capable of performing its design function. Therefore, the control room chiller being cooled by the inoperable ESW loop will also be fully functional and capable of performing its design function.

### **REFERENCES**

1. Letter from Pamela B. Cowan (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "License Amendment Request, Proposed Changes to Technical Specifications Sections 3.5.1, 3.6.2.3, 3.7.1.1, 3.7.1.2 and 3.8.1.1 to Extend the Allowed Outage Times," dated March 19, 2010.
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