



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

March 10, 2011

Mr. Michael J. Pacilio
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: 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)

Dear Mr. Pacilio:

By letter dated March 19, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100810151), Exelon Generation Company, LLC (Exelon) submitted a license amendment request proposing to extend the Technical Specification allowed outage time for the Limerick Generating Station, Units 1 and 2, Suppression Pool Cooling mode of the Residual Heat Removal system, the Residual Heat Removal Service Water (RHRSW) system, the Emergency Service Water system, and the A.C. Sources - Operating (Emergency Diesel Generators) from 72 hours to 7 days in order to allow for repairs of the RHRSW system piping.

The Nuclear Regulatory Commission staff has been reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). The questions were sent via electronic transmission on February 24, 2011, to Mr. Glenn Stewart, of your staff. The draft questions were sent to ensure that the questions were understandable, the regulatory basis was clear, and to determine if the information was previously docketed. The draft questions were discussed in a teleconference with your staff on March 3, 2011. It was agreed that a response to this RAI would be submitted by April 1, 2011.

Please contact me at 301-415-2833, if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Peter Bamford".

Peter Bamford, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosure:
As stated

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

LIMERICK GENERATING STATION, UNITS 1 AND 2

PROPOSED TECHNICAL SPECIFICATION ALLOWED OUTAGE TIME EXTENSIONS

TO SUPPORT RESIDUAL HEAT REMOVAL SERVICE WATER MAINTENANCE

DOCKET NOS. 50-352 AND 50-353

By letter dated March 19, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100810151), Exelon Generation Company, LLC (Exelon, the licensee) submitted a license amendment request (LAR) proposing to extend certain Limerick Generating Station (LGS) Units 1 and 2, Technical Specification (TS) allowed outage times (AOTs). Specifically these AOTs are for the 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 (EDGs)). The AOTs would be extended from 72 hours to seven (7) days in order to allow for repairs of the RHRSW system piping. By letter dated October 29, 2010 (ADAMS Accession No. ML103060379), the licensee supplemented the original application in response to a Nuclear Regulatory Commission (NRC) request for additional information (RAI). The NRC staff has been reviewing the submittal and has determined that additional information is needed to complete its review.

1. The new proposed RHRSW specifications, TS 3.7.1.1 Action a.3.a and TS 3.7.1.1 Action a.3.b, require certain systems to be protected, including RHR subsystems. RHR subsystems are defined in TS 3.4.9.1 (RHR Hot Shutdown) and TS 3.4.9.2 (RHR Cold Shutdown), which are TSs that do not apply to a unit in Operational Condition 1 or 2. TS 3.6.2.2 (Suppression Pool Spray-SPS) and TS 3.6.2.3 (Suppression Pool Cooling) refer to two independent loops, not subsystems, each loop having at least one operable RHR pump, an RHR heat exchanger and the flow path as described in the TS.
 - a) Explain why the proposed TS 3.7.1.1 Action a.3.a and TS 3.7.1.1 Action a.3.b require protection of RHR subsystems and the SPC and SPS loops do not require protection.
 - b) Explain the criteria used in identifying structures, systems, or components for inclusion in the list of protected systems and subsystems stated in TS 3.7.1.1 Action a.3.a and TS 3.7.1.1 Action a.3.b.
 - c) Discuss the reasons for protecting the Safeguard [direct current] DC buses.
 - d) Discuss whether the power that supplies the following components are protected: (1) valves for the operable EDGs, including their associated ESW valves, (2) valves for the only operable Emergency Core Cooling systems, Low Pressure Coolant Injection subsystems and Core Spray subsystems, and (3) valves for the only operable RHRSW subsystem and associated RHR valves.

Enclosure

2. In the regulatory commitments stated in Section 4.2 (Item 2b) of Attachment 1 to the original March 19, 2010 submittal, the licensee included an inoperable but available Core Spray subsystem as equipment to be verified as available. The licensee's October 29, 2010, version removed the Core Spray subsystem with no apparent explanation.
 - a) Discuss the criteria for the list of equipment that is to be verified available and protected in current Commitment 2 of Attachment 4 of the October 29, 2010, submittal.
 - b) Discuss why the applicable Core Spray subsystem was removed from the list.
3. Failure of RHRSW valves 012-0120A or 012-0120B would be a common mode failure that could cause the loss of all RHRSW and ESW. In the response dated October 29, 2010, regarding RAI 4 of Attachment 2, the licensee stated that failure of these valves is considered extremely unlikely because of their stainless construction. Please provide additional justification that these valves will not fail closed during the extended AOT. This information should include, but not be limited to, a description of any inspection programs that include these valves and/or inspections planned before entering the extended AOT.
4. The licensee stated in the original submittal (page 11 of 37) "In order to maintain the full operability of the 'B' RHRSW subsystem, Unit 1 EDGs D12 and D14, and Unit 2 EDGs D22 and D24 will be maintained operable," and (Page 18 of 37) "In order to maintain the full operability of the 'A' RHRSW subsystem, Unit 1 EDGs D11 and D13, and Unit 2 EDGs D21 and D23 will be maintained operable." TS 3.7.1.1 Action a.3.a.1 and TS 3.7.1.1 Action a.3.b.1 for Unit 2 do not include all the EDGs as described above. Please explain the basis for this discrepancy.
5. The application dated March 19, 2010, describes the requested AOT extension as follows: "...the 72 hour AOT for the affected system may be extended once per calendar year *for one unit only* [emphasis added] for a period of up to 7 days to allow repairs..." By letter dated October 29, 2010, revised TS pages were submitted that allow a doubling of this frequency, i.e. one entry every other calendar year for each RHRSW subsystem for each unit, or possibly twice per year total per unit, with no explanation provided to justify the change. Please submit revised TS pages that reflect the original intent of the LAR, or provide justification for the proposed scope change to the allowed frequency of the extended AOT. If such a scope change to the original application is requested, please understand that the NRC review activities performed to date, including but not limited to, the probabilistic risk assessment review, will have to be re-performed.

March 10, 2011

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Sincerely,

/ra/

Peter Bamford, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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**via email*

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DATE	03/04/2011	030/9/2011	02/18/2011	03/10/2011

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