



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

November 24, 2010

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 CHANGES TO HIGH PRESSURE COOLANT INJECTION  
EQUIPMENT ROOM DELTA TEMPERATURE TRIP SETPOINT AND  
ALLOWABLE VALUE (TAC NOS. ME4171 AND ME4172)

Dear Mr. Pacilio:

By letter dated June 30, 2010 (Agencywide Documents Access and Management System Accession No. ML101810434), Exelon Generation Company, LLC submitted a license amendment request proposing to revise the Technical Specification High Pressure Coolant Injection Equipment Room Delta Temperature High Trip Setpoint and Allowable Value listed in Table 3.3.2-2, Isolation Actuation Instrumentation Setpoints, Item 4e, for Limerick Generating Station (LGS), Units 1 and 2.

The Nuclear Regulatory Commission staff has been reviewing the application 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 November 16, 2010, to Mr. Frank Mascitelli, of your staff. The draft questions were sent to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. The draft questions were discussed in a teleconference with your staff on November 19, 2010. It was agreed that a response to this RAI would be submitted by December 17, 2010.

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

Sincerely,

A handwritten signature in black ink, reading "Peter Bamford". The signature is written in a cursive style with a large, stylized "P" and "B".

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

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REQUEST FOR ADDITIONAL INFORMATION  
LIMERICK GENERATING STATION, UNITS 1 AND 2  
PROPOSED CHANGES TO HIGH PRESSURE COOLANT INJECTION ROOM  
HIGH DELTA TEMPERATURE SETPOINT AND ALLOWABLE VALUE  
DOCKET NOS. 50-352 AND 50-353

By letter dated June 30, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML101810434), Exelon Generation Company, LLC submitted a license amendment request (LAR) proposing to revise the Technical Specification High Pressure Coolant Injection (HPCI) Equipment Room Delta Temperature High Trip Setpoint and Allowable Value listed in Table 3.3.2-2, Isolation Actuation Instrumentation Setpoints, Item 4e, for Limerick Generating Station (LGS), Units 1 and 2. The Trip Setpoint and Allowable Value are proposed to be lowered, which is in the conservative direction, to reflect a revised analysis for the HPCI equipment room temperature following a postulated 25 gallon per minute steam leak. The Nuclear Regulatory Commission (NRC) staff has been reviewing the submittal and has determined that additional information is needed to complete its review.

- 1.) The LAR, Attachment 1, "Evaluation of Proposed Technical Specifications Changes," pages 4 and 5, outlines the loop uncertainty calculation, but does not provide the basis for all the numbers used in the calculation. In order for the NRC staff to verify the acceptability of the setpoint analysis, please provide the complete calculation, indicated as "Reference 6 – Loop Uncertainty Calculation TE-055-1N028B." If the basis for all numbers used in the loop uncertainty calculation is not contained in TE-055-1N028B, please provide that information separately.
- 2.) The LAR, Attachment 1, pages 5 and 6, outlines instrument channel operability. For license amendment reviews, the NRC staff uses the terms As-Left and As-Found tolerances, Allowable Value, and Analytical Limit, which are all described in Regulatory Issue Summary (RIS) 2006-17, "NRC Staff Position on the Requirements of 10 CFR 50.36, 'Technical Specifications,' Regarding Limiting Safety System Settings During Periodic Testing and Calibration of Instrument Channels." From the description in the submittal, it is unclear how the "Leave Alone Zone" (LAZ) is used or treated in the instrument channel maintenance program. Therefore, please describe how application of the LAZ provides adequate assurance of channel operability. Though not required, it would be helpful to describe the LAZ as it relates to the descriptions in RIS 2006-17.
- 3.) As described in RIS 2006-17, values found outside the As-Found limit are typically entered in the corrective action program (CAP), recalibrated and retested. Also, as described in RIS 2006-17, it is the NRC staff position that verifying the As-Found setpoint is within limits is part of the determination that an instrument is functioning as required. Further, Title 10 of the *Code of Federal Regulations* Part 50, Appendix B, Criterion XVI, "Corrective Action," requires that significant conditions adverse to quality be promptly identified, corrected, and documented. From the process description in the LAR, it appears that the setpoint can drift up to the Allowable Value and never be

Enclosure

entered in the CAP. Please clarify what actions would be taken for setpoints found to exceed the LAZ. If no CAP entry is made for setpoints outside of a pre-established As-Found tolerance band, please justify why this provides acceptable setpoint programmatic controls regarding evaluation, trending, and corrective actions, and explain how this ensures that these instruments are operating in accordance with the assumptions in the governing setpoint analysis.

- 4.) The LAR, Attachment 1, page 3, states that the CFLUD program is the same program as was used to support a similar LGS 1995 License Amendment. However, a review of a LGS request for additional information response from the specified 1995 amendment dated September 23, 1994 (ADAMS Legacy Library Accession No. 9409290232), and the NRC safety evaluation for the 1995 amendment dated January 20, 1995 (ADAMS Accession No. ML011560074), indicates that PCFLUD was the computer code used. The LAR provides a description of certain changes between CFLUD and PCFLUD, however it does not identify how the computer coding changes, if any, were validated. Please clarify which computer code was used for both the 1995 amendment and the current LAR. If there have been changes to the computer code used to support the current LAR as compared to the 1995 amendment, please describe the steps taken to validate the changes.

November 24, 2010

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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

Docket Nos. 50-352 and 50-353

Enclosure: As stated

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ADAMS Accession Number: ML103210128

\* concurrence via memo

\*\* concurrence via email

OFFICE	LPLI-2/PM	LPLI-2/LA	SBPB/BC	LPL1-2/BC
NAME	PBamford	ABaxter**	WKemper*	HChernoff (REnnis for)
DATE	11/22/10	11/23/10	11/04/2010	11/24/10

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