



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

February 2, 2022

LICENSEE: Exelon Generation Company, LLC  
FACILITY: Limerick Generating Station, Units 1 and 2  
SUBJECT: SUMMARY OF DECEMBER 7, 2021, PUBLIC MEETING WITH EXELON GENERATION COMPANY, LLC REGARDING PLANNED DIGITAL MODERNIZATION LICENSE AMENDMENT REQUEST FOR LIMERICK GENERATING STATION, UNITS 1 AND 2 (EPID L-2020-LRM-0041)

On December 7, 2021, a public meeting via video conference was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Exelon Generation Company, LLC (Exelon, the licensee). The purpose of the meeting was to discuss technical specification (TS) changes that Exelon plans to submit as part of a planned license amendment request (LAR) involving the modernization of instrumentation and control (I&C) systems at Limerick Generating Station (Limerick), Units 1 and 2. The meeting notice and agenda, dated November 26, 2021, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21330A045. The presentation material used by the licensee during the meeting is available in ADAMS at Accession No. ML21335A077. A list of attendees is provided in the Enclosure.

During the meeting, the licensee provided an overview of the I&C section (i.e., Section 3.3) in the current Limerick TS and proposed changes to that section. The licensee stated that the proposed changes would make the I&C section of the Limerick TS more consistent with the improved standard TS described in NUREG-1433 and better reflect the planned upgraded digital design discussed at previous public meetings (ADAMS Accession Nos. ML21300A277, ML21301A161, ML21123A136, and ML20175A240). The proposed changes included:

- Moving trip setpoints and response time limits from Limerick TS to a document under the licensee's control.
- Reorganizing Section 3.3 of the Limerick TS (see licensee's presentation for a more complete description of changes).
- Requiring only three sensor channels – not four sensor channels – be operable for most four channel functions.

The NRC staff informed the licensee that the following should be described in more detail at a future public meeting and in the planned LAR:

- Describe how three channels (i.e., two out of three channel logic vs. two out of four channel logic) meet all design requirements.

The two of three condition may represent a system that is capable of performing its safety functions however, there remains a question of whether a system in this state continues to meet all design requirements. In particular, the single failure criteria of IEEE 603 or IEEE 279 in conjunction with surveillance testing requirements does not appear to be satisfied with a system in this condition.

- Describe how three channels provide lowest functional capability of the system.

In absence of a limiting condition for operability, operation of the system with only three functioning channels would need to demonstrate not only functional capability but would also have to show compliance with the performance criteria of IEEE 279 or IEEE 603, which includes maintaining single failure criteria during periodic surveillance testing activities during which only two channels would remain operable.

During the meeting, the NRC staff referred to several TS examples for plants with similar designs that include limiting conditions for operability that must be considered during the time in which the safety system is in a 2 of 3 logic condition. Though the times to take the required action vary significantly between plants, all the example TSs include descriptions of actions that must be considered when the system is in a 2 of 3 configuration.

- Reestablish the basis for continued elimination of previously removed response times from the TS.

During the meeting, the NRC staff pointed out that if the licensee wants to retain the existing exception from time response testing provisions, they should review the bases for these exceptions. If the replacement system diagnostic functions are to be credited in lieu of the current calibration and functional test surveillance tests as described in the licensee's presentation, then a new basis for these time response test exceptions may need to be established. If a basis for these exceptions is not reestablished in the LAR, then the TS test exceptions may become invalid and new test requirements would be needed.

- Describe any changes to allowable values and setpoints with regards to protecting allowable values.

No regulatory decisions were made during the meeting. Members of the public were in attendance. No comments or questions from the public were received during the meeting. No public meeting feedback forms were received.

Please direct any inquiries to me at 301-415-2871 or [Michael.Marshall@nrc.gov](mailto:Michael.Marshall@nrc.gov).

*/RA/*

Michael L. Marshall, Jr., Senior Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosures:  
List of Attendees

cc: Listserv

LIST OF ATTENDEES

DECEMBER 7, 2021, PUBLIC MEETING WITH EXELON GENERATION COMPANY, LLC

LIMERICK GENERATING STATION, UNITS 1 AND 2

PROPOSED LICENSE AMENDMENT REQUEST

INVOLVING DIGITAL MODERNIZATION

| Name                 | Organization                             |
|----------------------|--|
| Rossnyev Alvarado    | U.S. Nuclear Regulatory Commission (NRC) |
| Brent Ballard        | NRC                                      |
| Victor Cusumano      | NRC                                      |
| Samir Darbali        | NRC                                      |
| Bernard Dittman      | NRC                                      |
| Treyvon Griffin      | NRC                                      |
| Jeanne Johnston      | NRC                                      |
| Michael Marshall     | NRC                                      |
| Ed Miller            | NRC                                      |
| Richard Stattel      | NRC                                      |
| Summer Sun           | NRC                                      |
| Tarico Sweat         | NRC                                      |
| Michael Waters       | NRC                                      |
| Khadijah West        | NRC                                      |
|                      |  |
| George Budock        | Exelon Generation Company, LLC (Exelon)  |
| Joe Drahus           | Exelon                                   |
| Dave Helker          | Exelon                                   |
| Steven Hesse         | Exelon                                   |
| Paul Krueger         | Exelon                                   |
| Frank Mascitelli     | Exelon                                   |
| Craig Myers          | Exelon                                   |
| Darani Reddick       | Exelon                                   |
| Mark Samselski       | Exelon                                   |
| Scott Schumacher     | Exelon                                   |
|                      |  |
| Pareez Golub         | Sargent & Lundy                          |
| Brian Mann           | Excel Services                           |
| Warren Odess Gillett | Westinghouse                             |
| Calvin Tang          | Westinghouse                             |
|                      |  |
| Steven Alferink      | -----                                    |
| Stephen Kimura       | -----                                    |

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CNolan, OEDO

**ADAMS Accession No.: ML22021B294**

|        |                  |                  |                 |
|--------|------------------|------------------|-----------------|
| OFFICE | NRR/DORL/LPL1/PM | NRR/DORL/LPL1/LA | NRR/DEX/EICB/BC |
| NAME   | MMarshall        | KZelevnock       | MWaters         |
| DATE   | 01/24/2022       | 01/24/2022       | 01/26/2022      |
| OFFICE | NRR/DORL/LPL1/BC | NRR/DORL/LPL1/PM |                 |
| NAME   | JDanna           | MMarshall        |                 |
| DATE   | 02/01/2022       | 02/02/2022       |                 |

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