



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001  
January 6, 2016

LICENSEE: Exelon Generation Company, LLC

FACILITY: Byron Station, Units 1 and 2

SUBJECT: SUMMARY OF DECEMBER 9, 2015, MEETING WITH EXELON GENERATION COMPANY, LLC TO DISCUSS PRESUBMITTAL APPLICATION TO USE TORMIS METHODOLOGY AT BYRON STATION, UNIT NOS. 1 AND 2 (CAC NOS. MF7080 AND MF7081)

On December 9, 2015, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Exelon Generation Company, LLC (EGC, the licensee) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was for the NRC staff and licensee to discuss the future license amendment request (LAR or application) to use TORMIS computer code methodology to assess tornado missile strike probability for equipment important to safety at Byron Station, Unit Nos. 1 and 2. The meeting notice and agenda, dated November 25, 2015, are available in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML15329A194. A list of attendees is provided in the enclosure to this letter.

The licensee's presentation included a summary of the TORMIS computer code methodology to be proposed in a forthcoming LAR. The presentation included a discussion on:

- Implementation of TORMIS methodology;
- Adherence to NRC requirements;
- TORMIS computer code simulations;
- Benefits of TORMIS methodology;
- Site specific TORMIS analysis; and
- TORMIS methodology/risk assessment.

A complete version of the licensee's presentation is publicly-available at the NRC website under (ADAMS) Accession No. ML15348A023.

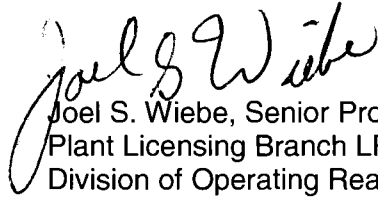
The NRC staff queried EGC on their remarks associated with probabilistic risk assessment. Specifically, how the licensee intends to apply the TORMIS methodology to safety-related systems at Byron Station. EGC indicated the Byron TORMIS LAR is not intended to be a risk-informed submittal. The NRC established the staff's expectations that the licensee's application was required to be complete and comprehensive. This would allow for an accurate and timely staff review to facilitate the staff's safety evaluation. The staff advised EGC on past industry license submittals on similar TORMIS licensing implementations; including lessons learned during staff reviews. EGC's proposed approach is to use a Boolean logic concept applied to target groups accounting for redundancy in the design. With a redundant design, the group function could be met even with one or more individual targets damaged by postulated missiles. This logic is applied to each TORMIS simulated tornado to determine if the missile damage

results in a loss of function of the target group. EGC has acknowledged the need to thoroughly describe this approach and cite any precedence where Boolean logic was used in previous TORMIS applications. The NRC commented that it would be helpful for EGC to include a marked up version of the Updated Final Safety Analysis Report as part of the LAR submittal. EGC noted that the complete TORMIS analysis is comprised of 5 volumes (over 1800 pages) and it may be practical to submit a summary of each volume of the Byron TORMIS analysis. The NRC commented that submitting an LAR, similar to the level of detail found in the Fermi, Unit 2, submittal, would be appropriate (ADAMS Accession No. ML14016A487). EGC was receptive to the staff's comments and stated the insights would be advantageous during preparation of the applications submittal. The licensee indicated the application may be finalized and ready for submittal to the NRC late February 2016.

No regulatory commitments or final decisions were made during this meeting.

There were no members of the public in attendance. Several individuals were identified from other utilities/vendors and participated on the teleconference as a matter of interest. Public meeting feedback forms were available, no feedback comments were received. There were no immediate comments from the public received.

All questions/inquiries may be directed to Russell Haskell at 301-415-1129, or [Russell.Haskell@nrc.gov](mailto:Russell.Haskell@nrc.gov).

  
Joel S. Wiebe, Senior Project Manager  
Plant Licensing Branch LPL3-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-454 and 50-455

Enclosure:  
List of Attendees

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Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-454 and 50-455

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**ADAMS Accession Nos.:** Meeting Notice: ML15329A194

Meeting Summary: ML15348A022

Handouts: ML15348A023

OFFICE	NRR/DORL/LP3-2/PM	NRR/DORL/LPL3-2/LA	NRR/DORL/LPL3-2/BC	NRR/DORL/LPL3-2/PM
NAME	RHaskell	SRohrer	JPoole	JWiebe
DATE	12/15/2015	12/16/2015	12/29/2015	1/06/2016

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