

**From:** [Marshall, Michael](#)  
**To:** [\[Licensee\] Ron Reynolds \(Exelon\)](#)  
**Cc:** [Danna, James](#)  
**Subject:** NINE MILE POINT NUCLEAR STATION, UNIT 2 – REQUEST FOR ADDITIONAL INFORMATION RE: REVIEW OF LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATIONS TO ADOPT RISK-INFORMED COMPLETION TIMES (EPID L-2019-LLA-0234)  
**Date:** Tuesday, December 15, 2020 10:59:00 AM

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Hello Ron:

By letter dated October 31, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19304B653), as supplemented by letters dated December 12, 2019, August 28, 2020, October 2, 2020, October 2, 2020, and October 22, 2020 (ADAMS Accession Nos. ML19346F427, ML20241A044, ML20276A019, ML20276A020, and ML20296A195 respectively), Exelon Generation Company, LLC (Exelon, the licensee) requested that the U.S. Nuclear Regulatory Commission (NRC) amend the Appendix A, Technical Specifications, of Renewed Facility Operating License No. NPF-69 for Nine Mile Point Nuclear Station, Unit 2 (Nine Mile Point 2). Exelon's proposed license amendment request would revise technical specification requirements to permit the use of risk-informed completion times for actions to be taken when limiting conditions for operation are not met. The proposed changes are based on Technical Specifications Task Force Traveler, TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF Initiative 4b," dated July 2, 2018 (ADAMS Accession No. ML18269A041).

The U.S. Nuclear Regulatory Commission staff has reviewed the information provided in the license amendment request and has determined that additional information is needed to complete its review. The response to the request for additional information was discussed with you on December 15, 2020, and it was agreed that your response would be provided within 30 days of the date of this email.

RAIs 1 to 26 were provided to Exelon in separate correspondence (ADAMS Accession Nos. ML20213A935, ML20246G636, ML20272A280, and ML20273A237).

#### RAIs

Section 50.36(c)(2) of 10 *Code of Federal Regulations* requires technical specifications to contain limiting conditions of operation that describe the lowest functional capability of equipment required for safe operation of a plant. Licensees are required to follow any remedial actions permitted by the technical specifications. Those remedial actions need to be completed within a set time frame, commonly referred to as a completion time or allowed outage time. The risk-informed completion time program that Exelon has requested to adopt at Nine Mile Point 2 is one way of establishing or changing a completion time using a risk-informed approach that relies on probabilistic risk assessments (PRAs), including the fire PRAs.

27) In its response to RAI 24 (ADAMS Accession No. ML20276A020), the licensee explains that influence factors were applied using the guidance in FAQ 12-0064 by an informal expert panel. The response explained that credit for administrative controls was not applied to reduce any transient fire frequencies, and therefore, any violations of transient combustible administrative controls are not applicable to assignment of influence factors. The response stated that an influence factor of "0" for was not assigned for maintenance, occupancy, or hot work for any physical analysis unit (PAU).

However, an influence factor of "0" for storage was assigned to the suppression pool and hydrogen storage PAUs. The response did not justify the assignment of a "0" influence factor as requested in the RAI. The NRC staff acknowledges that the suppression pool atmosphere is inerted most of the time, which would prevent a transient fire, but notes that a fire is possible when the containment is not inerted.

Concerning the hydrogen storage area, the licensee stated:

The entire Bin 17 frequency associated with fixed hydrogen tanks was assigned to SITE-43 which influenced the decision to eliminate the additional contribution from transient fires due to storage.

Therefore, it appears that the underestimation of risk associated with applying a "0" storage influence factor to SITE-43 (the PAU for bulk hydrogen storage) was done to offset the overestimation of risk associated with applying the whole Bin 17 ignition frequency to PAU SITE-43. It is not clear how the risk associated with SITE-43 is overestimated and how fires from hydrogen tanks are related to fires from the storage of transients, and thus would represent a reasonable trade-off for applying an assigning a "0" storage influence to this PAU. Also, it is not clear how SITE-43 contributes to the overall risk.

- a) Explain what fraction of time the containment is not inerted at power and why assignment of an influence factor for storage of "0" to the suppression pool PAU is still justified.
- b) Concerning the influence factor for storage of "0" assigned to SITE-43:
  - i) Explain how the fire risk associated with SITE-43 is overestimated and how fires from hydrogen tanks are related to the storage of transients, and thus represent a reasonable trade-off for assigning a "0" storage influence factor to this PAU.
  - ii) Include discussion of the transient combustible controls for SITE-43.
  - iii) Explain how much SITE-43 contributes to the overall fire risk.
- c) Justify that there are no PAUs for Nine Mile Point 2 that experience significantly more work orders compared to the average number of work orders for a typical compartment, so that an influence factor of "50" is not used for either hot work or electro-mechanical maintenance.

28) In response to RAI 12f (ADAMS Accession No. ML20276A020) on the uncertainty associated with its main control room (MCR) abandonment analysis due to loss of control, the licensee stated that it modified its analysis of fires in the main control board (MCB) and its MCR abandonment analysis due to loss of control using NUREG-2178, Volume 2 and NUREG-1921, Supplement 2. In the RAI response, the licensee stated that "this updated MCB treatment was subject to a focused scope peer review and the results from that review have been addressed in the applicable Fire PRA notebook." However, the licensee did not indicate whether any new findings and observations (F&Os) were generated from the focused scope peer review and no F&Os with associated disposition were provided in the RAI response.

- a) Indicate whether this focused scope peer review covered use of both NUREG-2178,

Volume 2 on the MCB and the use of NUREG-1921, Supplement 2 on MCR abandonment due to LOC.

- b) If not, justify the exclusion of either method from the focused scope peer review (e.g., the method was considered PRA maintenance). Your justification should include a discussion of why the excluded method is not an upgrade to the fire PRA.
- c) Indicate whether any F&Os were generated by the focused scope peer review.
- d) If F&Os were generated, indicate whether these F&Os were closed by an F&O closure review or by another peer review.

Best Regards,  
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Senior Project Manager

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