

DRAFT

REQUEST FOR ADDITIONAL INFORMATION

OFFICE OF NUCLEAR REACTOR REGULATION

LICENSE AMENDMENT REQUEST TO ADOPT TSTF-425 TO RELOCATE SPECIFIC

SURVEILLANCE FREQUENCIES TO A LICENSEE-CONTROLLED PROGRAM

PPL SUSQUEHANNA, LLC

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 50-388

By letter dated October 27, 2014,<sup>1</sup> PPL Susquehanna, LLC (the licensee), submitted a license amendment request for the Susquehanna Steam Electric Station, Units 1 and 2 (SSES). The proposed amendment would modify the SSES Technical Specifications (TS) by relocating specific surveillance frequencies to a licensee-controlled program with the implementation of Nuclear Energy Institute (NEI) 04-10, "Risk-Informed Technical Specifications Initiative 5b, Risk-Informed Method for Control of Surveillance Frequencies."<sup>2</sup> To complete its review, the NRC staff requests responses to the following questions.

1. Finding and Observation (F&O) 1-12, for Supporting Requirement (SR) SC-A5, located on page 15 of 69 of Attachment 2 of the licensee's application, was developed because the licensee did not perform an evaluation to determine if certain accident sequences should be extended beyond 24 hours. The licensee addressed this F&O by adding section 2.1.17 to the success criteria notebook to outline the dominant considerations contributing to the 24 hour probabilistic risk assessment (PRA) mission time and the systems/equipment with less than 24 hour mission time. However, the licensee did not explain whether one of the three methods proposed by the peer review team was used. Furthermore, the ASME/ANS RA-Sa-2009, "Addenda to ASME/ANS RA-S-2008 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications," Standard requires the licensee to use a minimum mission time of 24 hours for sequences in which safe and stable plant conditions have been achieved. The ASME/ANS Standard also states that the licensee should perform additional evaluation or modeling using an appropriate technique (the standard lists some examples), for sequences in which stable plant conditions would not be achieved by 24 hours.
  - a. Explain whether a safe and stable plant condition would be achieved for the accident sequences with the assumed 24 hour PRA mission time.

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<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML14317A052.

<sup>2</sup> ADAMS Accession No. ML071360456.

- b. If not, explain the treatment of those accident sequences for which stable plant conditions would not be achieved within 24 hours, consistent with the ASME/ANS Standard guidelines.
2. F&O 7-1, related to SR HR-C3, located on page 19 of 69 of Attachment 2 of the licensee's application, was developed because the licensee did not include an analysis of miscalibration for the component failure rate data. The licensee stated that adding this level of detail would have a small effect on the outcome of the PRA per NUREG-1792, "Good Practices for Implementing Human Reliability Analysis."<sup>3</sup> However, miscalibration of standby systems is an important consideration for surveillance test interval changes. Explain how miscalibration is modeled in the PRA in accordance with SR HR-C3.
  3. F&O 7-4, located on page 18 of 69 of Attachment 2 of the licensee's application, related to SR HR-B2, cites screening of common mode failures due to staggered testing/maintenance principles. Please clarify the resolution of this F&O.
  4. The licensee stated that the internal fires risk and external events assessment is based on the Individual Plant Examination of External Events (IPEEE) studies, but did not explain if the IPEEE reflects current plant configuration. Explain whether the licensee's evaluation of fire risk and other external events supporting this application reflects the current plant configuration and operating experience.
  5. Regulatory Guide 1.177, "An Approach for Plan-Specific, Risk-Informed Decisionmaking: Technical Specification,"<sup>4</sup> requires the licensee to provide additional details in terms of separating the failure rate contributions into demand-related and standby time-related contributions. It is not clear whether these terms were separated. Explain how the licensee intends to model failure rate contributions to surveillance frequencies using NEI 04-10 guidance.
  6. As part of the license amendment request (LAR), the licensee proposed to remove the definition of "STAGGERED TEST BASIS" from TS Section 1.1, "Definitions," and relocate this frequency from the TS to the Surveillance Frequency Control Program. However, the term "STAGGERED TEST BASIS" is retained in TS 5.5.14, "Control Room Envelope Habitability Program," specifically in TS 5.5.14.d. Please provide a justification for the above stated discrepancy.
  7. During review of the proposed changes to Surveillance Requirement (SR) 3.6.1.1.2 the NRC staff notes that the licensee's proposed change is not consistent with TSTF-425. Specifically, the licensee's proposal would relocate the requirement to perform the surveillance when the condition in the note is met to the Surveillance Frequency Control Program. However, TSTF-425 retains that frequency in the TS. Please provide further justification for this change.

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<sup>3</sup> ADAMS Accession No. ML051160213.

<sup>4</sup> ADAMS Accession No. ML100910008.