



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

May 22, 2015

Mr. Timothy S. Rausch  
Senior Vice President and Chief Nuclear Officer  
PPL Susquehanna, LLC  
769 Salem Boulevard  
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL INFORMATION RE: LICENSE AMENDMENT REQUEST TO ADOPT TECHNICAL SPECIFICATIONS TASK FORCE TRAVELER (TSTF)-425 (TAC NOS. MF5151 AND MF5152)

Dear Mr. Rausch:

By letter dated October 27, 2014, PPL Susquehanna, LLC (PPL), 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 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." To complete its review, the NRC staff requests responses to the enclosed questions.

The draft questions were sent to Mr. Duane Filchner, of your staff, to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. Please respond to the enclosed questions within 45 days of the date of this letter.

If you have any questions regarding this matter, please contact me at 301-415-4090.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey A. Whited".

Jeffrey A. Whited, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

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.
  - 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.

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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.

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.

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Sincerely,  
**/RA/**  
Jeffrey A. Whited, Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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