



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

February 22, 2013

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 REGARDING REQUEST FOR CHANGES TO TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS TO INCREASE DIESEL GENERATOR MINIMUM STEADY STATE VOLTAGE (TAC NOS. ME9607 AND ME9608)

Dear Mr. Rausch:

By letter dated September 18, 2012,¹ PPL Susquehanna, LLC submitted two license amendment requests for Susquehanna Steam Electric Station, Units 1 and 2. The proposed amendments would make changes to Technical Specification (TS) Surveillance Requirements (SRs) 3.8.1.9, 3.8.1.11, 3.8.1.12, and 3.8.1.19 in TS 3.8.1, "AC Source – Operating." Specifically, the proposed amendments will increase Diesel Generator Acceptable minimum steady state voltage when operating in emergency/isochronous mode. To complete its review, the Nuclear Regulatory Commission staff requests responses to the enclosed questions.

The draft questions were sent to Mr. Jason Jennings, 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. On February 19, 2013, Mr. Jennings agreed that you would provide a response by March 1, 2013.

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

Sincerely,

A handwritten signature in black ink that reads "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

¹ Agencywide Documents Access and Management System Accession No. ML1262A322.

REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED LICENSE AMENDMENT REQUEST TO
CHANGE TECHNICAL SPECIFICATION SURVEILLANCE REQUIREMENTS
TO INCREASE DIESEL GENERATOR MINIMUM STEADY STATE VOLTAGE
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-387 AND 50-388

By letter to the Nuclear Regulatory Commission (NRC) dated September 18, 2012,¹ PPL Susquehanna, LLC (PPL, the licensee) submitted a license amendment request (LAR) for Susquehanna Steam Electric Station (SSES), Units 1 and 2. The proposed amendments would change Technical Specification (TS) Surveillance Requirements (SRs) 3.8.1.9, 3.8.1.11, 3.8.1.12 and 3.8.1.19 in TS 3.8.1, "AC Sources-Operating." Specifically, the proposed amendments would increase the Diesel Generator (DG) acceptable minimum steady state voltage when operating in emergency/isochronous mode.

The NRC staff has reviewed the information that the licensee provided in support of its proposed license amendments. In order for the staff to complete its review, the licensee is requested to address the following requests for additional information.

Consistent with the requirements in Section 50.36 of Title 10 of the *Code of Federal Regulations*, SRs must assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operations are met. The proposed change modifies voltage requirements in selective SRs only. The LAR states that SRs associated with DG operation in droop mode are not being revised as voltage and frequency are manually adjusted to allow connection to the grid. The NRC staff considers that all SRs in TS 3.8.1, associated with the DG, demonstrate operational readiness of the DG to perform its intended design functions as delineated in the SSES Final Safety Analysis Report, Section 8.1.1. The SRs which require DG operation in droop mode should also demonstrate the ability of the DG to achieve required voltage and frequency prior to connecting to the grid.

Please address:

RAI 1: The intent of the voltage range in the SRs not being changed by the proposed LAR.

RAI 2: Describe how the steady state voltage requirements, currently associated with the droop mode SRs, will demonstrate DG operability if the safety busses are below the minimum required 4000 Volts as proposed in the LAR.

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The LAR proposes a new voltage range of ≥ 4000 Volts and ≤ 4400 Volts for SRs 3.8.1.9, 3.8.1.11, 3.8.1.12 and 3.8.1.19. The current requirements of induction motors and other voltage sensitive equipment vary according to available voltage and frequency.

RAI 3: Provide excerpts from calculations that validate DG loading when operating at extremes of the proposed voltage range.

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/ra/

Jeffrey A. Whited, Project Manager
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*via memo dated **via email

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