

May 31, 2006

Mr. Britt T. McKinney  
Sr. Vice President  
and Chief Nuclear Officer  
PPL Susquehanna, LLC  
769 Salem Blvd., NUCSB3  
Berwick, PA 18603-0467

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) - SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (SSES 1 AND 2) - REQUEST FOR ADDITIONAL INFORMATION REGARDING AMENDMENT APPLICATION TO REVISE TECHNICAL SPECIFICATIONS ON DC ELECTRICAL SYSTEM REQUIREMENTS (TAC NOS. MC5153 AND MC5154)

Dear Mr. McKinney:

On October 19, 2005, the Nuclear Regulatory Commission (NRC) requested additional information regarding your submittal dated November 9, 2004, concerning your proposed Technical Specification (TS) changes based on TS Task Force (TSTF) Change Traveler TSTF-360, Revision 1, to the SSES 1 and 2 TS sections: TS 3.8.4, "DC Sources - Operating," TS 3.8.5, "DC Sources - Shutdown," TS 3.8.6, "Battery Cell Parameters," and TS 5.5, "Program and Manuals." You provided that information in a letter dated December 5, 2005. The NRC staff has determined that additional information contained in the enclosure to this letter is needed to complete its review. The questions were discussed with your staff during a teleconference on April 7, 2006. As agreed to by your staff, we request you respond within 30 days of the date of this letter.

If you have any questions, please contact me at 301-415-1030.

Sincerely,

*/RA/*

Richard V. Guzman, Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:  
RAI

cc w/encl: See next page

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ADAMS ACCESSION NUMBER: ML061500024 \* See RAI memo

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DATE	5/30/06	5/30/06	5/31/06 SE DTD 2/24/06	5/31/06

OFFICIAL RECORD COPY

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Susquehanna Steam Electric Station, Unit Nos. 1 and 2

cc:

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Sierra Club  
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REQUEST FOR ADDITIONAL INFORMATION  
REGARDING AMENDMENT APPLICATION TO REVISE TECHNICAL SPECIFICATIONS  
ON DC ELECTRICAL SYSTEM REQUIREMENTS

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (SSES 1 AND 2)

PPL SUSQUEHANNA, LLC

DOCKET NOS. 50-387 AND 50-388

The Nuclear Regulatory Commission (NRC) staff is reviewing the proposed license amendment for PPL Susquehanna, LLC (PPL, the licensee) to Facility Operating License No. NPF-14 and NPF-22 related to proposed changes based on TS Task Force (TSTF) Change Traveler TSTF-360, Revision 1, to the SSES 1 and 2 Technical Specification (TS) sections: TS 3.8.4, "DC Sources - Operating," TS 3.8.5, "DC Sources - Shutdown," TS 3.8.6, "Battery Cell Parameters," and TS 5.5, "Program and Manuals." The NRC staff has determined the additional information requested below will be needed to complete its review.

- 1) Specific gravity monitoring is used to measure the strength of a battery cell's electrolyte, which is an important component of the battery's chemical reaction, and provides an indication of the battery's state-of-charge. Whereas, float current monitoring may or may not provide an accurate indication of the battery's state-of-charge. Float current monitoring is based on a calculation that is dependent on several variables. The NRC staff has a concern with two variables of this calculation: the applied charging voltage and cell resistance. A change in either of these variables may provide a false indication of the battery's state-of-charge. Provide assurance that float current monitoring will provide an accurate indication of the battery's state-of-charge.
- 2) The battery pilot cell is representative of the average battery cell in the battery. Provide assurance that a battery with a battery pilot cell with a voltage of 2.07 volts or slightly greater will remain capable of performing its minimum designed function.
- 3) As mentioned in No. 2, the battery pilot cell is representative of the average battery cell in the battery. Provide assurance that a battery with a battery pilot cell electrolyte temperature slightly greater than or equal to the minimum established design limit will remain capable of performing its minimum designed function.
- 4) Consistency with the Institute of Electrical and Electronics Engineers (IEEE) Standard 450-1995, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications," was used throughout your submittal as the justification for approval. The most recent version of IEEE Standard 450 that has been endorsed by the NRC through Regulatory Guides (RGs) is IEEE Standard 450-1975. The RGs of mention are: RG 1.128, "Installation, Design, and Installation of Large Lead Storage Batteries for Nuclear Power Plants," and RG 1.129,

Enclosure

“Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants.”

- a. Provide a plant-specific technical justification for each proposed change in lieu of referencing consistency with the IEEE Standard 450-1995.
- b. Provide a copy of the proposed battery monitoring and maintenance program identified in TS 5.5.14.