

November 1, 2005

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, UNIT 1 (SSES 1) - REVISED MINIMUM CRITICAL
POWER RATIO SAFETY LIMIT (TAC NO. MC8626)

Dear Mr. McKinney:

In reviewing your submittal of October 14, 2005, concerning a request to revise Technical Specification 2.1.1.2 for SSES 1, the Nuclear Regulatory Commission (NRC) staff has determined that additional information contained in the enclosure to this letter is needed to complete its review. These questions were discussed with your staff during a teleconference on October 25, 2005. As agreed to by your staff, we request you respond within 30 days of the date of this letter. In addition, we request that you meet with the NRC staff following the SSES 1 startup to discuss your post-outage testing results and root-cause analysis with respect to the fuel channel/control cell interference issues at SSES 1.

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

Sincerely,

/RA/

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

Docket No. 50-387

Enclosure: RAI

cc w/encl: See next page

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DATE	11/1/05	10/31/05	11/1/05	11/1/05

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REQUEST FOR ADDITIONAL INFORMATION
RELATING TO MINIMUM CRITICAL POWER RATIO SAFETY LIMIT FOR
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1 (SSES 1)
PPL SUSQUEHANNA, LLC (PPL)
DOCKET NO. 50-387

The Nuclear Regulatory Commission (NRC) staff is reviewing the proposed license amendment to Facility Operating License No. NPF-14 requesting to revise the SSES 1 Cycle 14 (U1C14A) minimum critical power ratio safety limit (MCPRSL). The NRC staff has determined that the information requested below will be needed to complete its review.

1. Please describe how the U1C14A core loading pattern is established and what criteria should be met to reinsert twice burned fuel bundles. Identify which design documentation file was used for this core design.
2. Please justify that assumed bow twice the Advanced Nuclear Fuels (ANF) database is conservative for the redesign U1C14A core. Also, provide clarification that channel bow required for MCPRSL calculation specified in ANF-524(P)(A), Revision 2, "ANF Critical Power Methodology for Boiling Water Reactors," and Supplement 1, Revision 2, is still applicable to the MCPRSL calculation.
3. Please describe the PPL channel management action plan with respect to the General Electric (GE) guidance provided by GE report SC05-06, "Updated Surveillance Program for Fuel Channel-Control Blade Interference Monitoring," dated July 14, 2005, and justify the difference if any.
4. Please describe the fuel assembly inspection program planned for the mid-cycle outage as well as follow-on pool-side inspection programs prior to Cycle 15. Include in this program description the following:
 - a) Description of the measurement device and the accuracy of its channel deflection measurements.
 - b) Threshold used to determine when to re-channel and/or re-insert a fuel assembly.
 - c) Degree of fuel pin inspections.
 - d) List of channel bow measurements on channels being used to re-channel assemblies.
 - e) Qualify the relationship between cold, unstressed pool-side measurements and hot, stressed (delta-pressure across channel wall during operation) in-reactor channel deflection.

Susquehanna Steam Electric Station, Unit Nos. 1 and 2

Enclosure

cc:

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Susquehanna Steam Electric Station, Unit Nos. 1 and 2

cc:

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