November 4, 2004

Mr. Bryce L. Shriver
President, PPL Generation, LLC
and Chief Nuclear Officer
PPL Generation, LLC
2 North Ninth Street
Allentown, PA 18101

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) - SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (SSES 1 AND 2) - PROPOSED THIRD 10-YEAR INTERVAL INSERVICE TESTING PROGRAM PLANS (TAC NOS. MC3382, MC3383, MC3384, MC3385, MC3386, MC3387, MC3388, MC3389, MC4421, AND MC4422)

Dear Mr. Shriver:

In reviewing your submittals of May 28 and September 10, 2004, concerning proposed relief requests for the third 10-year interval inservice testing program plans at SSES 1 and 2, the Nuclear Regulatory Commission 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 September 28, 2004. 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, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure: RAI

cc w/encl: See next page

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DATE	10/28/04	10/28/04	11/01/04	11/01/04

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REQUEST FOR ADDITIONAL INFORMATION

RELATING TO PROPOSED RELIEF REQUESTS FOR THE THIRD 10-YEAR INTERVAL

INSERVICE TESTING PROGRAM PLANS FOR

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

PPL SUSQUEHANNA, LLC (PPL)

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NOS. 50-387 AND 50-388

RR-01 and RR-05

1. Provide the sizes of all the check valves for which relief is requested to perform on-line inservice testing (IST).

2. Provide all the related piping and instrumentation drawings which contain the relief request's subject check valves (sizes greater than 2 inches) along with their isolation valves, which will be used for the isolation of the check valves, when performing IST on-line.

3. RR-01 and RR-05 do not address the safety and risk significance of the on-line IST of the check valves. Please address (either in a qualitative or quantitative manner) the potential risk of disassembly and inspection of the check valves on-line compared to the risk during system outage/plant shutdown.

4. Provide sufficient information for the Nuclear Regulatory Commission (NRC) staff to reach a safety or risk determination with regards to the leak testing experience and leak tightness reliability of the associated pressure isolation valves and the potential consequences of a loss of isolation capability during disassembly, inspection, and manual exercising of all the check valves (sizes greater than 2 inches).

5. Based on the risk significance discussed in Question No. 4 above, discuss what preventive or compensatory measures are necessary to maintain safety and minimize risk while performing on-line IST.

6. Under the section entitled, "Basis for Relief," of your letter dated May 28, 2004, you state that the maintenance rule, Section 50.65(a)(4) of Title 10 of the *Code of Federal Regulations* (10 CFR), requires licensees to assess and manage the increase of risk that may result from proposed maintenance activities. However, in order for the NRC staff to evaluate whether the proposed IST alternative is acceptable, you must demonstrate that the alternative provides an acceptable level of quality and safety pursuant to 10 CFR 50.55a(a)(3)(i). Performing a risk assessment of the proposed on-line testing at

the time of IST does not address why on-line testing provides an acceptable level of quality and safety at this time. Meeting the maintenance rule is a separate regulatory requirement.

a. Demonstrate that the alternative provides an acceptable level of quality and safety pursuant to 10 CFR 50.55a(a)(3)(i).

b. Discuss how risk insights, as well as other factors, will be used to establish when IST should be performed either on-line or during refueling outages.

7. Explain how technical specification requirements for the reactor core isolation cooling, high pressure coolant injection, residual heat removal, fuel pool cooling and cleanup, and core spray systems will be satisfied while performing on-line IST of check valve(s) in the system. Specifically, address the limiting condition for operation and describe your planned actions to ensure that on-line IST will be accomplished within the allowed outage time. Discuss the typical amount of time needed to complete the IST of this check valve based on previous testing experience. Similarly, describe any contingency plans that will be in effect to provide reasonable confidence that the Allowed Outage Time will not be exceeded if the check valve(s) are found to be in a significantly degraded or unacceptable condition.

8. (Only for RR-01) Under the second paragraph of Section 4, "Proposed Alternate Testing," of your letter dated May 28, 2004, you state, "Check valve groups CV09, CV10, CV13, CV14, and CV24 include identical Unit 1 and Unit 2 valves. For these check valve groups, one valve from each group will be tested each outage cycle combination. An outage cycle combination is defined as the start of Unit 1 operating cycle to the completion of Unit 2 operating cycle." Please explain the following:

a. How are you going to schedule check valve testing for both Units 1 and 2, when both units may have different refueling outage schedules?

b. How will the IST records be maintained for various Unit 1 and 2 check valves, when both units have separate IST programs/records/management?

c. The American Society of Mechanical Engineers *Boiler and Pressure Vessel Code* requires IST to be performed during refueling outages when quarterly testing is impractical. The refueling outage cycle is 24 months. Accordingly, one valve from each group should be tested every 24 months. Define the specific interval to be used with the proposed operating cycle combination of Units 1 and 2 in order to maintain the 24-month testing interval.

9. (Only for RR-05) Under Section 3 of RR-05, "Basis of Relief," of your letter dated September 10, 2004, the third line of the second paragraph states, "This involves setup of test equipment and system configuration changes that are impractical on a quarterly or cold shutdown basis." Please explain how it is impractical to test these valves quarterly,

based on the definition of "Impracticality" in Template 4 of the NEI White Paper, Revision 1, "Standard Format for Requests from Commercial Reactor Licensees Pursuant to 10 CFR 50.55a."

RR-02

10. Provide the main steam relief valves testing information data from 1999 to present (2004).

RR-04

11. The comprehensive pump test (CPT) was developed to incorporate new philosophy for safety-related pumps. The new testing regimen permits less frequent, more meaningful testing on a biennial basis and allows less restrictive testing quarterly. The Group A test was designed to the criteria primarily on the mechanical condition of the pump (vibration), and the CPT was designed to assess the mechanical and hydraulic condition of the pump. It is the NRC staff's view that the Group A test alone does not adequately assess the hydraulic performance of the pumps. Please provide additional justification to support that the Group A test adequately assesses the hydraulic performance of the pumps. Include the tighter acceptance criteria and increased accuracy requirements of the test gauges required by the CPT in the justification.

Susquehanna Steam Electric Station, Unit Nos. 1 and 2

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