October 27, 2008

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 FOR THE REVIEW OF THE SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2, LICENSE RENEWAL APPLICATION

Dear Mr. McKinney:

By letter dated September 13, 2006, PPL Susquehanna, LLC submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), to renew the operating licenses for Susquehanna Steam Electric Station, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Duane Filchner, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-4029 or by e-mail at evelyn.gettys@nrc.gov.

Sincerely,

/RA/

Evelyn Gettys, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:
As stated

cc w/encl: See next page

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OFFICE	LA:DLR	PM:RPB1:DLR	BC:RER1	BC: RPB1:DLR
NAME	IKing	EGettys	JDozier	DPelton
DATE	10/17/08	10/22/08	10/23/08	10/27/08

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SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
REQUEST FOR ADDITIONAL INFORMATION

Follow-up RAI for SSES LRA

RAI B2.1-1R

In letter dated July 14, 2008, in response to RAI B2.1-1, Susquehanna Steam Electric Station (SSES) states that Inservice Inspection (ISI) Program is credited to manage loss of fracture toughness due to thermal aging embrittlement of cast austenitic stainless steel (CASS) components. It further states that loss of fracture toughness due to thermal aging embrittlement of CASS is managed via the detection of cracking and the monitoring of crack growth.

In license renewal application Table 3.1.2-3, SSES credits the ISI Program to manage loss of fracture toughness of CASS recirculation pump thermal barriers. The thermal barriers in the pumps (which provide a Class 1 to Class 2 interface) may not actually be accessible for inspection. Ultrasonic testing volumetric techniques to date cannot distinguish between signals that come from the CASS microstructures from those that arise for crack/flaw indications in the CASS material. Given that thermal aging of CASS can lead to a lower fracture toughness and cracking, please describe the aging management of the primary recirculation pump CASS thermal barrier cover. Address specifically the management of cracking that could occur between the pump shaft cavity and the cooling water cavity of the Reactor Building Closed Cooling Water system. Identify what inspection technique will be used to perform the inspection.

RAI B2.1-4R

In letter dated July 14, 2008, in response to RAI B2.1-4, Part B, SSES states that the recirculation nozzle safe-end weld overlay design was based on the requirements of the American Society of Mechanical Engineers (ASME) Section XI, IWB-3640 and Code Case N-504-2. SSES also states that the ASME Code required no flaw tolerance evaluations to be performed as part of the design basis for these repairs. There were no design basis analyses performed for the weld overlay repairs that constitute a time-limited aging analysis.

However, paragraph (g) of the code case mandates to perform an evaluation of the flaws that are left in place as part of the alternative repair weld overlay technology that is mandated by ASME. Please explain what SSES did to meet paragraph (g) of the code case and, if a flaw growth assessment was performed that covers the remainder of the current life of the plant.

ENCLOSURE

Letter to B. McKinney from E. Gettys, dated October 27, 2008

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Susquehanna Steam Electric Station,
Units 1 and 2

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