

November 7, 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, UNITS 1 AND 2 (SSES 1 AND 2) - POWER RANGE
NEUTRON MONITOR SYSTEM DIGITAL UPGRADE (TAC NOS. MC7486 AND
MC7487)

Dear Mr. McKinney:

In reviewing your submittal of June 27, 2005, concerning a request to revise Technical Specifications (TSs) 3.3.1.1, "Reactor Protection System Instrumentation," TS 3.3.1.3, "Oscillation Power Range Monitor Instrumentation," TS 3.3.2.1, "Control Rod Block Instrumentation," TS 3.4.1, "Recirculating Loops Operating," TS 3.10.8, "Shutdown Margin Test - Refueling," and TS 5.6.5, "Core Operating Limits Report," 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 November 2, 2005. 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 A
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

November 7, 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, UNITS 1 AND 2 (SSES 1 AND 2) - POWER RANGE
NEUTRON MONITOR SYSTEM DIGITAL UPGRADE (TAC NOS. MC7486 AND
MC7487)

Dear Mr. McKinney:

In reviewing your submittal of June 27, 2005, concerning a request to revise Technical Specifications (TSs) 3.3.1.1, "Reactor Protection System Instrumentation," TS 3.3.1.3, "Oscillation Power Range Monitor Instrumentation," TS 3.3.2.1, "Control Rod Block Instrumentation," TS 3.4.1, "Recirculating Loops Operating," TS 3.10.8, "Shutdown Margin Test - Refueling," and TS 5.6.5, "Core Operating Limits Report," 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 November 2, 2005. 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 A
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

DISTRIBUTION:

Public	OGC	RGuzman	DLPM DPR	LLois
PDI-1 R/F	RLaufer	SLittle	RBeacom	AHowe
ACRS	MRazzaque			

Accession Number: ML053070211

OFFICE	NRR/LPLA/PM	NRR/LPLA/LA	NRR/EICB/BC	NRR/SBWB/BC	NRR/LPLA/BC
OFFICE	RGuzman	SLittle	AHowe	LLois	Jboska for RLaufer
DATE	11/07/05	11/07/05	11/3/05	11/3/05	11/07/05

OFFICIAL RECORD COPY

REQUEST FOR ADDITIONAL INFORMATION
RELATING TO THE
POWER RANGE NEUTRON MONITOR SYSTEM DIGITAL UPGRADE FOR
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (SSES 1 AND 2)
PPL SUSQUEHANNA, LLC (PPL)
DOCKET NOS. 50-387 AND 50-388

The Nuclear Regulatory Commission (NRC) staff is reviewing the proposed license amendment from PPL Susquehanna, LLC (PPL, the licensee) to Facility Operating License No. NPF-14 and NPF-22 related to the installation of the General Electric (GE) Nuclear Measurement Analysis and Control (NUMAC) Power Range Neutron Monitor (PRNM) System for SSES 1 and 2. The NRC staff has determined the information requested below will be needed to complete its review.

1. In PPL's application dated June 27, 2005, Section 7.2, "Plant Specific Actions Required by NEDC-32410P-A," the following additional information is requested to support the NRC staff review:
 - A. In response to Section 2.3.4, PPL identified the existing plant variation, with regards to the Average Power Range Monitor/Rod Block Monitor/Technical Specifications (ARTS), as 2.3.3.5.1.4, "ARTS not implemented and not planned," and the replacement PRNM alternative as "Non-ARTS variation of STP [simulated thermal power] trip setpoint algorithm ...". In light of the Phase 2 implementation, incorporation of ARTS logic, explain why the ARTS variation and implementation was not the selected option.
 - B. In response to Section 4.4.2.3.4, PPL responded with, "Evaluations to confirm that the maximum seismic accelerations at the mounting locations of the equipment do not exceed qualification limits of the equipment will be completed...The seismic qualification results will be documented in a plant-specific "Qualification Summary." Please provide to the NRC staff the Qualification Summary which should include verification that the results, including updates from the original configuration by GE, incorporate the SSES 1 and 2 spectrum.
 - C. Supplement 1 of GE Licensing Topical Report NEDC-32410P-A, "NUMAC PRNM Retrofit Plus Option III Stability Trip Function," was not referenced for Section 8.4.4.3.4, which stated, "The utility action in the base report applies except that "OPRM Trip" is replaced by "OPRM Upscale." This action has yet to be implemented, please explain.
2. In Section 2.1 of the submittal, several Technical Specification (TS) changes have been proposed relating to Reactor Protection System instrumentation functions, including changes in terminology in the current TSs. If the proposed TS changes represent any alteration or adjustment of the instrument safety function, then describe the differences between the function before and after the upgrade, the methodology used to justify the change, and if the methodology was approved by the NRC staff.

Enclosure

Susquehanna Steam Electric Station, Unit Nos. 1 and 2

cc:

Robert A. Saccone
Vice President - Nuclear Operations
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

Aloysius J. Wrape, III
General Manager - Performance
Improvement and Oversight
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Terry L. Harpster
General Manager - Plant Support
PPL Susquehanna, LLC
769 Salem Blvd., NUCSA4
Berwick, PA 18603-0467

Richard D. Pagodin
General Manager - Nuclear Engineering
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

Rocco R. Sgarro
Manager - Nuclear Regulatory Affairs
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Walter E. Morrissey
Supervising Engineer
Nuclear Regulatory Affairs
PPL Susquehanna, LLC
769 Salem Blvd., NUCSA4
Berwick, PA 18603-0467

Michael H. Crowthers
Supervising Engineer
Nuclear Regulatory Affairs
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Steven M. Cook

Manager - Quality Assurance
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB2
Berwick, PA 18603-0467

Luis A. Ramos
Community Relations Manager,
Susquehanna
PPL Susquehanna, LLC
634 Salem Blvd., SSO
Berwick, PA 18603-0467

Bryan A. Snapp, Esq
Assoc. General Counsel
PPL Services Corporation
Two North Ninth Street, GENTW3
Allentown, PA 18101-1179

Supervisor - Document Control Services
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Richard W. Osborne
Allegheny Electric Cooperative, Inc.
212 Locust Street
P.O. Box 1266
Harrisburg, PA 17108-1266

Director, Bureau of Radiation Protection
Pennsylvania Department of
Environmental Protection
Rachel Carson State Office Building
P.O. Box 8469
Harrisburg, PA 17105-8469

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 35, NUCSA4
Berwick, PA 18603-0035

Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Susquehanna Steam Electric Station, Unit Nos. 1 and 2

cc:

Board of Supervisors
Salem Township
P.O. Box 405
Berwick, PA 18603-0035

Dr. Judith Johnsrud
National Energy Committee
Sierra Club
443 Orlando Avenue
State College, PA 16803