

November 2, 2006

Mr. Britt T. McKinney  
Senior Vice President & Chief Nuclear Officer  
PPL Susquehanna, LLC  
769 Salem Boulevard - NUCSB3  
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION - NRC EVALUATED  
EMERGENCY PREPAREDNESS EXERCISE INSPECTION REPORT  
05000387/2006012 AND 05000388/2006012

Dear Mr. McKinney:

The enclosed report documents an inspection at the Susquehanna Steam Electric Station, Units 1 and 2, which evaluated the performance of your emergency response organization during the September 19, 2006, exercise and the post-exercise critique conducted on September 22, 2006, as specified in the reactor oversight program. The inspectors discussed the preliminary findings of this inspection with you and other members of your staff on September 22, 2006.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed emergency plan procedures, previous drill reports, observed the exercise activities, and interviewed selected emergency preparedness personnel from your staff.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Raymond K. Lorson, Chief  
Plant Support Branch 1  
Division of Reactor Safety

B. McKinney

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Docket Nos. 50-387, 50-388  
License Nos. NPF-14, NPF-22

Enclosure: Inspection Report Nos. 05000387/2006012 and 05000388/2006012  
w/Attachment: Supplemental Information

cc w/encl:

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A. J. Wrape, III, General Manager- Performance Improvement and Oversight  
T. L. Harpster, General Manager - Plant Support  
R. D. Pagodin, General Manager - Nuclear Engineering  
R. R. Sgarro, Manager - Nuclear Regulatory Affairs  
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B. A. Snapp, Esquire, Associate General Counsel, PPL Services Corporation  
Supervisor - Document Control Services  
R. W. Osborne, Allegheny Electric Cooperative, Inc.  
Director - Bureau of Radiation Protection, PA Department of Environmental Protection  
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B. McKinney

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U. S. NUCLEAR REGULATORY COMMISSION REGION I  
REGION I

Docket Nos: 50-387, 50-388

License Nos: NPF-14, NPF-22

Report Nos: 05000387/2006012 and 05000388/2006012

Licensee: PPL Susquehanna, LLC (PPL)

Facility: Susquehanna Steam Electric Station, Units 1 and 2

Location: Berwick, Pennsylvania

Dates: September 18-22, 2006

Inspectors: S. Barr, Senior Emergency Preparedness Inspector (Lead)  
C. Gordon, Senior Radiation Specialist  
J. Caruso, Senior Operations Engineer  
M. Snell, Reactor Engineer

Approved by: Raymond K. Lorson, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000387/2006-012, IR 05000388/2006-012; 9/18-22/06; Susquehanna Steam Electric Station, Units 1 and 2; Emergency Preparedness Exercise; Emergency Preparedness Performance Indicators.

This inspection was conducted by four region-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-5949, "Reactor Oversight Process," Revision 3, dated August 2000.

A. NRC-Identified Findings

**Cornerstone: Emergency Preparedness**

None

B. Licensee-Identified Findings

None

## Report Details

### 1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

#### 1EP1 Exercise Evaluation (71114.01 - 1 Sample)

##### a. Inspection Scope

Prior to the exercise, an in-office review was conducted of the exercise objectives and scenario submitted to the NRC to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14). The evaluation of the licensee's performance during the exercise is described below. Overall, this inspection activity represents the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Susquehanna's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) in 10 CFR 50.47 (b)(4), (5), (9) & (10) which are emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of Susquehanna's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the control room simulator, the Technical Support Center (TSC), the Operations Support Center (OSC), and the Emergency Operations Facility (EOF).
- Other performance areas, such as, the emergency response organization's (ERO's) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, staffing and procedure adequacy, and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from the last NRC exercise report and Susquehanna's drill reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critique to evaluate Susquehanna's self-assessment of its ERO performance during the exercise and to ensure compliance with 10 CFR 50, Appendix E.IV.F.2.g.

The inspectors reviewed the documents listed in Attachment 1 to this report.

Enclosure

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

40A1 Performance Indicator (PI) Verification (71151- 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Susquehanna EP PIs which are: (1) Drill and Exercise Performance (DEP); (2) ERO Drill Participation; and (3) Alert and Notification System (ANS) Reliability. The inspectors reviewed supporting documentation from drills and tests from the third and fourth quarters of 2005, and the first and second quarters of 2006, to verify the accuracy of the reported data. The review of these performance indicators was conducted in accordance with NRC Inspection Procedure 71151. The acceptance criteria used for the review were 10 CFR 50.9 and NEI 99-02, Revision 2, "Regulatory Assessment Performance Indicator Guidelines." This inspection activity represented the completion of three samples on an annual cycle.

b. Findings

No findings of significance were identified.

40A6 Meetings, including Exit

The inspectors presented the inspection results to Mr. Britt McKinney, PPL Susquehanna, Chief Nuclear Officer, and other members of the licensee's staff at the conclusion of the inspection on September 22, 2006. The licensee had no objections to the NRC observations. No proprietary information was provided to the inspectors during this inspection.

**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

D. Coffin, Supervisor, Susquehanna Nuclear Emergency Planning  
R. Lingle, Susquehanna Nuclear Emergency Planning

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened, Closed, Discussed

None

**LIST OF DOCUMENTS REVIEWED**

**Section 1EP1: Exercise Evaluation**

Susquehanna Steam Electric Station Emergency Plan  
Susquehanna Emergency Plan Implementing Procedures  
2006 Graded Exercise Timeline and Scenario Messages  
Gold Team Full Scale Drill Report, 2/1/2005  
Green Team Full Scale Drill Report, 7/12/2005  
Gold Team Full Scale Drill Report, 1/24/2006  
White Team HP Drill Report, 4/25/2006

**Section 4OA1: Performance Indicator Verification**

EP-AD-022, Nuclear Emergency Planning Performance Indicators Procedure  
Drill/Exercise Performance Indicator Data, July 2005-March 2006  
ERO Drill Participation Performance Indicator Data, July 2005-March 2006  
ANS Reliability Performance Indicator Data, July 2005-March 2006



**LIST OF ACRONYMS**

ANS	Alert and Notification System
CFR	Code of Federal Regulations
CR	Condition Report
DEP	Drill and Exercise Performance
ERO	Emergency Response Organization
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center