



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

November 16, 2010

Mr. Timothy S. Rausch
Senior Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd--NUCSB3
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION--NRC EVALUATED
EMERGENCY PREPAREDNESS EXERCISE--INSPECTION REPORT NOS.
05000387/2010502 AND 05000388/2010502

Dear Mr. Rausch:

On October 8, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the October 5, 2010, evaluated emergency preparedness exercise at your Susquehanna Steam Electric Station. The enclosed inspection report documents the inspection results, which were discussed on October 8, 2010, you and other members of your staff.

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 selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings 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 the 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,

A handwritten signature in black ink, appearing to read "Jim Trapp".

James A. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

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

Enclosure: NRC Inspection Report Nos. 05000387/2010502 and 05000388/2010502

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/RA/

James A. Trapp, Chief
 Plant Support Branch 1
 Division of Reactor Safety

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SUNSI Review Complete: JMT (Reviewer's Initials)
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T. Rausch

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cc w/encl:

R. French, PA Emergency Management Agency (PEMA)

D. Hammons, RAC Chair, DHS Region III

cc w/encl: Distribution via ListServ

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W. Dean, RA (R1ORAMAIL Resource)
M. Dapas, DRA (R1ORAMAIL Resource)
D. Lew, DRP (R1DRPMAIL Resource)
J. Clifford, DRP (R1DRPMAIL Resource)
D. Roberts, DRS (R1DRSMail Resource)
P. Wilson, DRS (R1DRSMail Resource)
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P. Finney, DRP, SRI
J. Greives, DRP, RI
S. Farrell, DRP, OA
L. Trocine, RI OEDO
J. Andersen, RI OEDO
D. Bearde, DRS
RidsNrrPMSusquehanna Resource
RidsNrrDorLp1-1 Resource
ROPreportsResource@nrc.gov
R. Kahler, NSIR/EPD
S. LaVie, NSIR/EPD
Region I Docket Room (with concurrences)
J. Trapp, DRS
S. Barr, DRS
C. Crisden, DRS

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos: 50-387, 50-388

License Nos: NPF-14, NPF-22

Report Nos: 05000387/2010502 and 05000388/2010502

Licensee: PPL Susquehanna, LLC

Facility: Susquehanna Steam Electric Station, Units 1 and 2

Location: Berwick, Pennsylvania

Dates: October 4-8, 2010

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector, DRS, Region I (Lead)
P. Finney, Susquehanna Senior Resident Inspector, DRS, Region I
J. Grieves, Susquehanna Resident Inspector, DRP, Region I
R. Rolph, Health Physicist, DRS, Region I
C. Crisden, Emergency Preparedness Inspector, DRS, Region I
A. Dugandzic, Reactor Inspector, DRS, Region I

Approved By: James A. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000387/2010502, 05000388/2010502; 10/4/2010-10/08/2010; Susquehanna Steam Electric Station, Units 1 and 2; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by four region-based inspectors and two resident inspectors. No findings were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings

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 October 5, 2010, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which PPL Susquehanna, LLC, had submitted to the NRC, to determine if the exercise would test major elements of the Susquehanna Steam Electric Station Emergency Plan as required by 10 CFR 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of PPL's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of PPL'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, Technical Support Center (TSC), Emergency Operations Facility (EOF), and Joint Information Center (JIC).
- A review of 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 mitigating 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.
- A review of past performance issues from the last NRC Susquehanna exercise inspection report and PPL's EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the October 5th exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate PPL's self-assessment of its ERO performance during the October 5th exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04 – 1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, PPL implemented various changes to the Susquehanna Steam Electric Station Emergency Plan and implementing procedures. PPL had determined that in accordance with 10 CFR 50.54(q), any change made to the Plan had resulted in no decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors reviewed all EAL changes made since June 2009, and conducted a sampling review of other Emergency Plan changes, including changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in a Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. Findings

No findings were identified.

4. **OTHER ACTIVITIES (OA)**

4OA1 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) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last EP inspection at Susquehanna was conducted in the second quarter of 2009, so the inspectors reviewed supporting documentation from EP drills and tests from the second calendar quarter of 2009 through the third quarter of 2010, to verify the accuracy of the reported PI data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 6.

This inspection activity represented the completion of three samples on an annual cycle.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On October 8, 2010, the inspectors presented the results of this inspection with Mr. T. Rausch, Senior Vice President and Chief Nuclear Officer, and other members of the Susquehanna staff. No proprietary information was provided to the inspectors during this inspection.

ATTACHMENT
SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

T. Rausch, Senior Vice President and Chief Nuclear Officer
S. Davis, Manager, Nuclear Emergency Planning

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

Susquehanna Steam Electric Station Emergency Plan, Revision 53
Susquehanna Steam Electric Station Emergency Plan Implementing Procedures
Susquehanna October 5, 2010, Emergency Exercise Scenario Package
Susquehanna Emergency Preparedness Drill Reports, January 2009 – September 2010
Action Report 1188841, "Perform a self assessment of the 10/5/10 E-plan drill"

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Susquehanna Steam Electric Station Emergency Plan, Revision 53
EP-AD-015, Review, Revision, and Distribution of the SSES Emergency Plan, Revision 12
NDAP-QA-0002, Procedure Program and Procedure Change Process, Revision 26
NDAP-QA-0726, 10 CFR 50.59 and 10 CFR 72.48 Implementation, Revision 11

Screenings and Evaluations

2010-09-28-01	2010-04-07-01	2009-09-09-01
2010-09-27-02	2010-04-06-01	2009-08-14-01
2010-09-27-01	2010-03-30-01	2009-08-13-04
2010-09-24-01	2010-03-29-01	2009-08-13-03
2010-09-15-01	Evaluation 53-2010	2009-08-05-01
2010-08-25-01	2010-02-25-01	2009-07-29-05
2010-08-17-01	2010-02-02-01	2009-07-29-04
2010-06-22-01	2009-12-22-02	2009-07-29-03
2010-06-15-01	2009-23-22-01	2009-07-29-02
2010-05-24-01	2009-12-03-01	2009-07-29-01
2010-05-24-02	2009-11-09-01	2009-07-08-01
2010-05-21-01	2009-11-03-01	2009-07-02-01
2010-04-28-01	2009-11-02-01	2009-06-17-01
2010-04-26-01	2009-10-23-02	2009-06-16-1

2010-04-12-02
2010-04-12-01

2009-10-23-01
2009-09-28-02

Section 4OA1: Performance Indicator Verification

EP-AD-022, Nuclear Emergency Planning Performance Indicators, Revision 3
ERO Drill Participation PI data, April 2009 – September 2010
Alert Notification System PI data, April 2009– September 2010
DEP PI data, April 2009 – September 2010

LIST OF ACRONYMS

ANS Alert Notification System
AR Action Report
DEP Drill and Exercise Performance
EAL Emergency Action Level
EOF Emergency Operations Facility
EP Emergency Preparedness
ERO Emergency Response Organization
JIC Joint Information Center
NEI Nuclear Energy Institute
NRC Nuclear Regulatory Commission
PI Performance Indicator
PPL Pennsylvania Power and Light
RSPS Risk Significant Planning Standard
TSC Technical Support Center