



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

September 4, 2012

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

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
(REPORT 05000387/2012006 and 05000388/2012006)

Dear Mr. Rausch:

On August 15, 2012, the U. S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Susquehanna Steam Electric Station (Susquehanna) Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2011 through June 30, 2012. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This assessment reflects the integration of the Security Cornerstone into the ROP performance assessment program governed by IMC 0305, "Operating Reactor Assessment Program."

The NRC determined that the performance at Susquehanna Unit 1 during the most recent quarter was within the Regulatory Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because of one finding having low to moderate safety significance (i.e., white) associated with the Initiating Events Cornerstone. The White finding was related to an internal flooding event on July 16, 2010, which required the operators to insert a manual scram and isolate the normal heat sink.

On May 7, 2012, the NRC issued an interim 95002 supplemental inspection report and follow-up assessment letter (ML1215A374) associated with a Unit 1 Unplanned Scrams per 7000 Critical Hours PI which crossed the threshold from green to white in the first quarter of 2011 and the White internal flooding finding discussed above. While the NRC concluded that PPL had adequately addressed the Unplanned Scrams PI, the White internal flooding finding was held open based on significant weaknesses associated with PPL's assessment of the extent of condition and extent of cause. In addition, the NRC was unable to evaluate the effectiveness of the procedure quality upgrade project due to insufficient progress. Accordingly, the White finding associated with the internal flooding event and the 95002 supplemental inspection will remain open until all inspection objectives have been met. As discussed in the May 7 correspondence, a follow-up 95002 inspection will be conducted once the NRC has been informed of your readiness.

The NRC determined the performance at Susquehanna Unit 2 during the most recent quarter was within the Licensee Response Column of the NRC's ROP Action Matrix because all inspection findings had very low safety significance (i.e., green), and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at Unit 2.

The NRC evaluates cross-cutting themes to determine whether a substantive cross-cutting issue (SCCI) exists in a particular area and to encourage licensees to take appropriate actions before more significant performance issues emerge. During this assessment period, the NRC continued to identify a SCCI in the Corrective Action Program (CAP) component of the Problem Identification and Resolution (PI&R) cross-cutting area. Specifically, there were four findings with a PI&R cross-cutting aspect of P.1(c) - Evaluation of Identified Problems, one of which is the White internal flooding finding which was held open following the 95002 supplemental inspection. The P.1(c) SCCI was initially assigned in the 2011 Mid-Cycle assessment letter (ML112430469) and continued in the 2011 Annual Assessment letter (ML12061A021). For the current assessment period, the NRC has determined that the exit criteria defined in the 2011 Mid-Cycle Assessment letter have not been met since PPL has not demonstrated sustainable performance improvement. Specifically, there is not yet evidence of effective implementation of the corrective action plan in that there has not been a notable reduction in the number of findings with the same cross-cutting aspect. Furthermore, the NRC notes that while some progress has been made, the P.1(c) SCCI recovery plan is not yet complete. Therefore, the P.1(c) SCCI will remain open until PPL has demonstrated sustainable performance improvement as evidenced by effective implementation of an appropriate corrective action plan that results in no safety significant findings and a notable reduction in the overall number of inspection findings with the same cross-cutting aspect.

During this assessment period, the NRC also continued to identify a SCCI in the Resources component of the Human Performance cross-cutting area. Specifically, there were four findings with a Human Performance cross-cutting aspect of H.2(c) - Documentation, Procedures and Component Labeling. The H.2(c) SCCI was initially assigned in the 2011 Annual Assessment letter. For the current assessment period, the NRC has determined that the exit criteria defined in the 2011 Annual Assessment letter have not been met. Specifically, there is not yet evidence of effective implementation of the corrective action plan in that there has not been a notable reduction in the number of findings with the same cross-cutting aspect. Therefore, the H.2(c) SCCI will remain open until PPL has demonstrated sustainable performance improvement as evidenced by effective implementation of an appropriate corrective action plan that results in no safety significant findings and a notable reduction in the overall number of inspection findings with the same cross-cutting aspect.

Because this is the third consecutive assessment letter documenting a P.1(c) SCCI and the second letter documenting a H.2(c) SCCI, the NRC requests that you address, in a public meeting, your assessment of the: 1) causal factors associated with the SCCIs; and 2) the implementation, effectiveness, and timeliness of corrective actions to address the SCCIs, including the status of the procedure quality upgrade project. Furthermore, we understand that you plan to conduct a safety culture assessment during 2013, which is part of your participation in industry wide initiatives. The NRC requests that you discuss your plans for this upcoming safety culture assessment and how insights associated with the SCCIs may be factored into the development of the plan. The NRC will continue to monitor your staff's efforts and progress in addressing these SCCIs through the baseline inspection program.

The enclosed inspection plan lists the inspections scheduled through December 31, 2013. Routine inspections performed by resident inspectors are not included in the inspection plan. In addition to the baseline inspections, consistent with the Agency's actions related to Fukushima, the NRC will perform TI-187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns" and TI-188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns." We also plan to conduct Inspection Procedure (IP) 92702, "Follow-up on Traditional Enforcement Actions," and independent spent fuel storage installation inspections (ISFSI) using Inspection Procedure 60855.1, "Operation of an ISFSI at Operating Plants." The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security-related inspections, which will be sent via separate, non-publicly available correspondence.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter 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).

Please contact Paul Krohn at 610-337-5120 with any questions you have regarding this letter.

Sincerely,

/RA/

Darrell J. Roberts, Director
Division of Reactor Projects

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

Enclosure: Susquehanna Steam Electric Station Inspection/Activity Plan

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<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP	RI/DRP		
NAME	SMcCarver/SM	PKrohn/PGK	DRoberts/DJR		
DATE	08/27/12	08/27/12	09/04 /12		

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Susquehanna
Inspection / Activity Plan
07/01/2012 - 12/31/2013

Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
		71152B - PI&R		7
1,2	07/09/2012 07/13/2012	IP 71152B	Problem Identification and Resolution	
1,2	07/23/2012 07/27/2012	IP 71152B	Problem Identification and Resolution	
		71124 - RAD SAFETY		1
1,2	08/20/2012 08/24/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	08/20/2012 08/24/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	08/20/2012 08/24/2012	IP 71124.04	Occupational Dose Assessment	
		TI-187 - FLOODING WALKDOWNS		1
1,2	08/15/2012 10/30/2012	IP 2515/187	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns	
		TI-188 - SEISMIC WALKDOWNS		1
1,2	08/15/2012 10/30/2012	IP 2515/188	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns	
		60855 - ISFSI LOADING INSPECTION		2
1,2	09/17/2012 09/21/2012	IP 60855	Operation Of An ISFSI	
1,2	09/17/2012 09/21/2012	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
		92702 - FOLLOWUP ON TRADITIONAL ENFORCMENT ACTION		1
1,2	10/01/2012 12/31/2012	IP 92702	Followup On Corrective Actions For Violations And Deviations	
		71124.08 - RADWASTE		1
1,2	10/15/2012 10/19/2012	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
		EP EX - EP EXERCISE EVALUATION		6
1,2	10/22/2012 10/26/2012	IP 7111401	Exercise Evaluation	
1,2	10/22/2012 10/26/2012	IP 7111404	Emergency Action Level and Emergency Plan Changes	
		71124.06 - RETS INSPECTION		1
1,2	11/05/2012 11/09/2012	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1,2	11/05/2012 11/09/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		MODS - PERMANENT PLANT MODIFICATIONS		3
1,2	11/26/2012 11/30/2012	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
1,2	12/10/2012 12/14/2012	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
		4/22 EXM - SUSQ INITIAL EXAM		5
1	03/25/2013 03/29/2013	U01868	FY13-SUSQ INITIAL OPERATOR LICENSING EXAM	
1	04/22/2013 05/03/2013	U01868	FY13-SUSQ INITIAL OPERATOR LICENSING EXAM	
		7111108G - U2 INSERVICE INSPECTION		1
2	04/22/2013 04/26/2013	IP 7111108G	Inservice Inspection Activities - BWR	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Susquehanna
Inspection / Activity Plan
07/01/2012 - 12/31/2013

Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
71124 - RADIATION SAFETY INSPECTION				1
1,2	04/22/2013 04/26/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	04/22/2013 04/26/2013	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	04/22/2013 04/26/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	04/22/2013 04/26/2013	IP 71124.04	Occupational Dose Assessment	
71124 - RADIATION SAFETY INSPECTION				1
1,2	06/17/2013 06/21/2013	IP 71124.07	Radiological Environmental Monitoring Program	
1,2	06/17/2013 06/21/2013	IP 71151	Performance Indicator Verification	
7111121 - CDBI				7
1,2	07/29/2013 08/02/2013	IP 7111121	Component Design Bases Inspection	
1,2	08/12/2013 08/16/2013	IP 7111121	Component Design Bases Inspection	
1,2	08/26/2013 08/30/2013	IP 7111121	Component Design Bases Inspection	
711111B - SUSQUEHANNA REQUAL INSP WITH P/F RESULTS				2
1	11/11/2013 11/15/2013	IP 711111B	Licensed Operator Requalification Program	
71124 - RADIATION SAFETY INSPECTION				1
1,2	09/09/2013 09/13/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	09/09/2013 09/13/2013	IP 71124.04	Occupational Dose Assessment	
71124 - RADIATION SAFETY INSPECTION				1
1,2	11/04/2013 11/08/2013	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
1,2	11/04/2013 11/08/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	11/04/2013 11/08/2013	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	11/04/2013 11/08/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	11/04/2013 11/08/2013	IP 71124.04	Occupational Dose Assessment	
1,2	11/04/2013 11/08/2013	IP 71151	Performance Indicator Verification	
EP PROGR - EP PROGRAM INSPECTION				1
1,2	11/04/2013 11/08/2013	IP 7111402	Alert and Notification System Testing	
1,2	11/04/2013 11/08/2013	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1,2	11/04/2013 11/08/2013	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	11/04/2013 11/08/2013	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	