



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

September 1, 2010

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

SUBJECT: MID-CYCLE ASSESSMENT LETTER – SUSQUEHANNA STEAM ELECTRIC
STATION, UNITS 1 AND 2 (05000387/2010001 and 05000388/2010001)

Dear Mr. Rausch:

On August 11, 2010, the Nuclear Regulatory Commission (NRC) staff completed its performance review of the Susquehanna Steam Electric Station (Susquehanna). Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from July 1, 2009 through June 30, 2010. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only - Security Information" will include the security cornerstone review and resultant inspection plan.

Overall, Susquehanna Units 1 and 2 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at Susquehanna Units 1 and 2. We also plan on conducting Inspection Procedure (IP) 71004, "Power Uprate," for uprate activities prior to your implementation of the power uprate on Unit 2. In addition, we will be conducting an infrequently performed inspection using IP 92723, "Follow-Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period," to follow up on three traditional enforcement violations in the area of impeding the regulatory process. The NRC will schedule and conduct IP 92723 when your staff has notified us of your readiness for this inspection.

On January 28, 2009, we issued you a potential Chilling Effect Letter (CEL) regarding the Safety Conscious Work Environment (SCWE) at Susquehanna (ML090280115)¹. In that letter we expressed concern with the progress and effectiveness of your actions to address indications of a declining SCWE and negative employee perceptions during 2008, as it may have impacted employee willingness to raise safety concerns and could lead to a chilling effect on site. As

¹ Designation in parenthesis refers to an Agencywide Documents Access and Management System (ADAMS) accession number. Documents referenced in this letter are publicly available using the accession number in ADAMS.

discussed in the 2009 Mid-Cycle and 2009 End-of-Cycle Performance Assessment Letters (ML0924402700 and ML100621039), issuance of the potential CEL met the first criterion for consideration of a SCWE Substantive Cross Cutting Issue (SCCI) over the next three plant assessment cycles. This mid-cycle 2010 assessment is the third assessment of SCWE as a theme described in Inspection Manual Chapter (IMC) 0305, "Reactor Oversight Process."

During 2009 and 2010, we reviewed your action plans and root cause evaluation to address SCWE issues at the site. We also performed targeted inspection samples and trend reviews to monitor your progress, and we reviewed the results of an independent culture survey (ML100321652, ML1003216520, ML100740339, ML102250028). In addition, NRC management conducted several site visits and held a public meeting on July 6, 2009, to discuss work environment issues (ML091940440). Based on these activities, we note that PPL has taken reasonable actions to address SCWE issues at the site. These actions are documented in your Work Environment Improvement Plan (ML100260405). NRC inspections confirmed the effectiveness of these actions and documented an improving work environment, SCWE metrics, and safety culture survey results. Furthermore, we noted that the number of allegations received by the NRC from onsite sources during this assessment period (15), although still greater than the industry norm, was lower than the corresponding period last year (19). Finally, a potential discrimination case regarding an SRO during the March 2008 refueling outage was determined to be unsubstantiated (ML1014809970) and inspectors determined that PPL had taken, or planned, reasonable corrective actions to address the SCWE impacts of the event and to prevent reoccurrence.

Based on direct inspection, allegation trend data, SCWE metrics, and survey results, the NRC has determined that you have made reasonable progress in addressing SCWE issues at Susquehanna during 2009 and 2010. Specifically, in evaluating your scope of efforts and progress in addressing SCWE issues, the staff determined that you recognized the issues impacted multiple areas across the site, took appropriate and timely actions to address these SCWE issues, and have implemented a range of corrective actions. The NRC staff has determined that your actions have been effective in addressing the underlying issues that led to the issuance of the CEL. As a result, the staff considers that the SCWE theme, as discussed in IMC 0305 and Enforcement Manual Section 6.5.4, "Chilling Effect of Actual or Potential Discrimination," no longer exists at Susquehanna and the potential CEL will no longer be considered for plant assessment purposes. Notwithstanding the staff's conclusions, the NRC will continue to monitor your activities to address SCWE issues at Susquehanna through the baseline inspection program to verify the effectiveness and sustainability of your efforts in this area.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2011. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end of cycle review.

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

T. Rausch

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If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Paul Krohn at 610-337-5120 with any questions you may have regarding this letter or the inspection plan.

Sincerely,


James W. Clifford, Acting Director
Division of Reactor Projects

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

Enclosure: Susquehanna Inspection/ Activity Plan

cc w/encl: Distribution via ListServ

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/RA/
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 Division of Reactor Projects

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Enclosure: Susquehanna Inspection/ Activity Plan

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ML102440462

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** CONCURRENCE VIA EMAIL DATED 8/31/10

Susquehanna
Inspection / Activity Plan
 07/01/2010 - 12/31/2011

Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
		71124 - HP		1
1,2	06/28/2010 07/02/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	06/28/2010 07/02/2010	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	06/28/2010 07/02/2010	IP 71124.05	Radiation Monitoring Instrumentation	
		71124 - HP & ISFSI		1
1,2	08/23/2010 08/27/2010	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
1,2	08/23/2010 08/27/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	08/23/2010 08/27/2010	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	08/23/2010 08/27/2010	IP 71151-OR01	Occupational Exposure Control Effectiveness	
		CDBI - COMPONENT DESIGN BASES INSPECTION		7
1,2	09/13/2010 09/17/2010	IP 7111121	Component Design Bases Inspection	
1,2	09/27/2010 10/08/2010	IP 7111121	Component Design Bases Inspection	
		12/13EXM - INITIAL OPERATOR LICENSING EXAM		4
1	12/13/2010 12/17/2010	U01793	FY11- SUSQUEHANNA U1&2 INITIAL OPERATOR LICENSING EXAM	
1	01/10/2011 01/14/2011	U01793	FY11- SUSQUEHANNA U1&2 INITIAL OPERATOR LICENSING EXAM	
		EP EX - EP EXERCISE EVALUATION		4
1,2	10/04/2010 10/08/2010	IP 7111401	Exercise Evaluation	
1,2	10/04/2010 10/08/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	10/04/2010 10/08/2010	IP 71151-EP01	Drill/Exercise Performance	
1,2	10/04/2010 10/08/2010	IP 71151-EP02	ERO Drill Participation	
1,2	10/04/2010 10/08/2010	IP 71151-EP03	Alert & Notification System	
		71124.08 - RADWASTE		1
1,2	11/29/2010 12/03/2010	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1,2	11/29/2010 12/03/2010	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		71124 - HP		1
1,2	03/21/2011 03/25/2011	IP 2515/179	Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS	
1,2	03/21/2011 03/25/2011	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
1,2	03/21/2011 03/25/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	03/21/2011 03/25/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	03/21/2011 03/25/2011	IP 71124.05	Radiation Monitoring Instrumentation	
		7111108G - U2 INSERVICE INSPECTION		1
2	04/11/2011 04/15/2011	IP 7111108G	Inservice Inspection Activities - BWR	
		71124 - HP		1
2	05/02/2011 05/06/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
2	05/02/2011 05/06/2011	IP 71124.02	Occupational ALARA Planning and Controls	

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

Susquehanna
Inspection / Activity Plan
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Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			71124 - HP		1
2	05/02/2011	05/06/2011	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION		4
1,2	06/06/2011	06/10/2011	IP 7111105T	Fire Protection [Triennial]	
1,2	06/20/2011	06/24/2011	IP 7111105T	Fire Protection [Triennial]	
			71124 - REMP		1
1,2	06/06/2011	06/10/2011	IP 71124.07	Radiological Environmental Monitoring Program	
			711111B - SUSQ REQUAL INSP W/ P/F RESULTS		3
1,2	10/03/2011	10/07/2011	IP 7111111B	Licensed Operator Requalification Program	
			TI-177 - MANAGING GAS ACCUMULATION IN ECCS		3
1,2	08/29/2011	09/02/2011	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
			EP PROGR - EP PROGRAM INSPECTION		1
1,2	10/10/2011	10/14/2011	IP 7111402	Alert and Notification System Testing	
1,2	10/10/2011	10/14/2011	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1,2	10/10/2011	10/14/2011	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	10/10/2011	10/14/2011	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1,2	10/10/2011	10/14/2011	IP 71151-EP01	Drill/Exercise Performance	
1,2	10/10/2011	10/14/2011	IP 71151-EP02	ERO Drill Participation	
1,2	10/10/2011	10/14/2011	IP 71151-EP03	Alert & Notification System	
			71124 - HP		1
1,2	11/14/2011	11/18/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	11/14/2011	11/18/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	11/14/2011	11/18/2011	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	

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