



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

March 3, 2010

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

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

Dear Mr. Rausch:

On February 16, 2010, the 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 January 1, 2009 through December 31, 2009. 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) for the six cornerstones under the Reactor and Radiation Safety strategic performance areas. Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

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 discussed in the 2009 Mid-Cycle Performance Assessment Letter (ML0924402700), issuance of

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.

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 assessment is the second since the issuance of the potential CEL.

During 2009, 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 reviewed the results of an independent culture survey (ML091330762, ML092230158, ML093170375, and ML100321652). 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 improve SCWE at the site. PPL actions included several organizational changes, improved communications to the workforce, additional SCWE training for supervisors and managers, work policy revisions, and development of additional means for workers to raise issues. 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 2009 (15), although still greater than the industry norm, was significantly lower than in 2008 (32).

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. Specifically, in evaluating your scope of efforts and progress in addressing SCWE issues, the staff determined that you recognized the issue impacted multiple areas across the site; took appropriate and timely actions to address it; and completed a range of corrective actions which have been implemented and are judged, at this time, to have been effective in addressing the underlying issues. Therefore, the staff has concluded that a SCWE SCCI does not exist at this time.

Notwithstanding this progress, the NRC will continue to monitor your activities to address SCWE issues at Susquehanna through the baseline inspection program. Specifically, the NRC will use focused inspection samples and a biennial problem identification and resolution team inspection to continue to review the progress and effectiveness of your corrective actions in this area. Also, the NRC continues to review some events that occurred during 2008. You will be informed of the outcome of these deliberations via separate correspondence. The NRC acknowledges that following your evaluations of SCWE plan effectiveness during 2009, you made revisions to the plan in a timely manner (ML090760146, ML091800460, ML100260405). Similarly, PPL will need to continue to evaluate and assess new information going forward to make appropriate adjustments to SCWE improvement plans, if warranted.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2011. In addition to the baseline inspections, we also plan on conducting inspection procedure 71004 regarding Unit 1 power uprate activities. 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 mid-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

3

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,

A handwritten signature in black ink, appearing to read 'D. Lew', with a stylized flourish at the end.

David C. Lew, Director
Division of Reactor Projects
Region I

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

cc w/encl: Distribution via ListServ
Susquehanna Inspection/ Activity Plan

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,

/RA/

David C. Lew, Director
Division of Reactor Projects

Distribution w/encl: (via e-mail)

S. Collins, RA
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DRS Directors
DRS Branch Chiefs (6)
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D. Tiff, RI
D. Screnci, RI

N. Sheehan, RI
R. Barkley, R
John Thompson, NRR
RidsNrrPMSusquehannaResource
RidsNrrDirspab@nrc.gov
ROPreportsResource@nrc.gov

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ML100621039

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* CONCUR VIA EMAIL

Susquehanna
Inspection / Activity Plan
01/01/2010 - 06/30/2011

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			71152B - PI&R		4
1,2	01/11/2010	01/15/2010	IP 71152B	Identification and Resolution of Problems	
1,2	01/25/2010	01/29/2010	IP 71152B	Identification and Resolution of Problems	
			2515/173 - GROUNDWATER TI		1
1,2	02/08/2010	02/12/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
			71004 - UNIT 1 POWER UPRATE INSPECTION		2
1	03/02/2010	04/15/2010	IP 71004	Power Uprate	
			7111108G - U1 INSERVICE INSPECTION		1
1	03/15/2010	03/19/2010	IP 7111108G	Inservice Inspection Activities - BWR	
			71124 - HP		1
1	03/15/2010	03/19/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	03/15/2010	03/19/2010	IP 71124.02	Occupational ALARA Planning and Controls	
1	03/15/2010	03/19/2010	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			71124 - RETS		1
1,2	05/10/2010	05/14/2010	IP 71124.05	Radiation Monitoring Instrumentation	
1,2	05/10/2010	05/14/2010	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			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 71124.04	Occupational Dose Assessment	
			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 71124.05	Radiation Monitoring Instrumentation	
1,2	08/23/2010	08/27/2010	IP 71151-OR01	Occupational Exposure Control Effectiveness	
			CDBI - COMPONENT DESIGN BASES INSPECTION		6
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	

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

Susquehanna
Inspection / Activity Plan
01/01/2010 - 06/30/2011

Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
		EP EX - EP EXERCISE EVALUATION		4
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	
		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	
2	05/02/2011 05/06/2011	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
		TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION		3
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	Public Radiation Safety	

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This report shows only on-site and announced inspection procedures.