



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

May 3, 2011

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

**SUBJECT: ASSESSMENT FOLLOW-UP LETTER FOR SUSQUEHANNA STEAM
ELECTRIC STATION, UNIT 1**

Dear Mr. Rausch:

As a result of its quarterly review of plant performance, which was completed on April 22, 2011, the Nuclear Regulatory Commission updated its assessment of Susquehanna Steam Electric Station (Susquehanna) Unit 1. The NRC's evaluation consisted of a review of performance indicators and inspection results. This letter informs you of the NRC's assessment and its plans for a future inspection at your facility. This letter supplements, but does not supersede, the annual assessment letter issued on March 4, 2011 (ML110620317)¹.

As discussed in the annual assessment letter, the NRC determined that the performance of Susquehanna Unit 1 during 2010 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). The 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 (ML103500332), and was assigned to the 3rd quarter 2010.

Subsequent to the issuance of our March 4 letter, the NRC's review of Susquehanna Unit 1 determined that the Unplanned Scrams per 7000 Critical Hours performance indicator (PI) has crossed the Green-to-White threshold (i.e., greater than three unplanned scram per 7000 critical hours). Specifically, Unit 1 had unplanned scrams on April 22, May 14, and July 16, 2010, as well as January 25, 2011. The first quarter 2011 PI was reported to the NRC on April 21, 2011.

Therefore, beginning in the first quarter of 2011, the NRC has assessed the performance of Susquehanna Unit 1 to be in the Degraded Cornerstone column of the NRC's Action Matrix based on two White inputs in the Initiating Events cornerstone. Consistent with the graded approach in the NRC's ROP, this results in a corresponding increase in the NRC's inspection and assessment oversight of Susquehanna Unit 1. Specifically, we plan to schedule and perform a supplemental inspection using Inspection Procedure (IP) 95002, "Inspection for One

¹ Designation in parenthesis refers to an ADAMS accession number. Documents referenced in this letter are publicly available using the accession number in ADAMS.

Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area," when your staff has notified us of your readiness for this inspection.

The IP 95002 inspection will be conducted to provide assurance that the root causes and contributing causes of individual and collective risk-significant performance issues are understood, independently assess the extent of condition and extent of cause of individual and collective risk significant performance issues, and provide assurance that licensee corrective actions for risk significant performance issues are sufficient to address the root causes and contributing causes and prevent recurrence. The IP 95002 inspection will be conducted within 180 days of when you formally inform the NRC that you are ready for this inspection.

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 Mr. Paul G. Krohn at (610) 337-5120 with any questions you have regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read 'W M Dean', written in a cursive style.

William M. Dean
Regional Administrator

Docket Nos. 50-387
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Sincerely,

/RA/
William M. Dean
Regional Administrator

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