



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

March 2, 2016

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

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR SUSQUEHANNA STEAM  
ELECTRIC STATION, UNITS 1 AND 2 (REPORT 05000387/2015006  
AND 05000388/2015006)**

Dear Mr. Rausch:

On February 11, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of Susquehanna Steam Electric Station (SSES) Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2015 through December 31, 2015. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined the performance at SSES Units 1 and 2 during the most recent quarter (i.e., fourth quarter of 2015) was within the Regulatory Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," because of one white finding in the Emergency Preparedness cornerstone as described in the NRC Inspection Report (IR) Nos. 05000387/2015503 and 05000388/2015503, dated April 16, 2015 (ADAMS Accession No. ML15105A471). The significance of this issue was finalized in NRC IR 05000387/2015504 and 05000388/2015504 (ML15173A297), Final Significance Determination for a White Finding with Assessment Follow-Up and Notice of Violation, dated June 22, 2015. As of January 1, 2016, Units 1 and 2 transitioned to the Licensee Response column after a supplemental inspection in accordance with Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," for the White finding was successfully completed on November 6, 2015. The results of this inspection are documented in NRC Supplemental IR 05000387/2015505 and 05000388/2015505 (ML15352A230) dated December 17, 2015. Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. In addition to ROP baseline inspections, the NRC will perform Inspection Procedure (IP) 60855.1, "Operation of an ISFSI Independent Spent Fuel Storage Installation at Operating Plants." 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 response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." This Order requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." This Order requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The audit was completed for SSES Units 1 and 2, and the information gathered will aid staff in development of the Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing TI 2515-191, "Inspection of the Implementation of Mitigating Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communications/Staffing/Multi-Unit Dose Assessment Plans."

During the assessment period, the NRC issued one Severity Level IV traditional enforcement violation to SSES, related to security. However, in accordance with IMC 0305, Section 13.02.b, the NRC will not conduct Inspection Procedure 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternative Dispute Resolution Confirmatory Orders," because the issue has already been reviewed in a previous inspection.

In accordance with Title 10 of the *Code of Federal Regulations* (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).

T. Rausch

-3-

Please contact Daniel Schroeder at 610-337-5262 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Michael L. Scott, Director  
Division of Reactor Projects

Docket Nos. 50-387 and 50-388  
License Nos. NPF-14 and NPF-22

Enclosure: Susquehanna Inspection/Activity Plan

cc w/encl: Distribution via ListServ

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**Susquehanna**  
**Inspection / Activity Plan**  
**01/01/2016 - 12/31/2017**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>ISI - U1 INSERVICE INSPECTION</b>		<b>1</b>
1	03/21/2016	03/25/2016	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>RS1234PI - HP INSPECTION</b>		<b>1</b>
1,2	03/28/2016	04/01/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	03/28/2016	04/01/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	03/28/2016	04/01/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	03/28/2016	04/01/2016	IP 71124.04	Occupational Dose Assessment	
			<b>71152B - PI&amp;R BIENNIAL</b>		<b>7</b>
1,2	06/06/2016	06/10/2016	IP 71152B	Problem Identification and Resolution	
1,2	06/20/2016	06/24/2016	IP 71152B	Problem Identification and Resolution	
			<b>RS6PI - EFFLUENTS PUBLIC PI</b>		<b>1</b>
1,2	06/13/2016	06/17/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1,2	06/13/2016	06/17/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>11/14EXM - SUSQUEHANNA INITIAL EXAM</b>		<b>4</b>
1	10/17/2016	10/21/2016	U01931	FY17-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
1	11/14/2016	11/25/2016	U01931	FY17-SUSQUEHANNA INITIAL OPERATOR LICENSING EXAM	
			<b>ISFSI - ISFSI LOADING CAMPAIGN INSPECTION</b>		<b>2</b>
1,2	08/29/2016	09/02/2016	IP 60855	Operation Of An ISFSI	
1,2	08/29/2016	09/02/2016	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>EP - EP EXERCISE EVALUATION</b>		<b>4</b>
1,2	10/17/2016	10/21/2016	IP 7111401	Exercise Evaluation	
			<b>RS5 - RP INSTRUMENTS</b>		<b>1</b>
1,2	09/12/2016	09/16/2016	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>7111121 - CDBI</b>		<b>6</b>
1,2	09/19/2016	09/23/2016	IP 7111121	Component Design Bases Inspection	
1,2	10/03/2016	10/07/2016	IP 7111121	Component Design Bases Inspection	
1,2	10/17/2016	10/21/2016	IP 7111121	Component Design Bases Inspection	
			<b>RS1234 - HP INSPECTION</b>		<b>1</b>
1,2	10/10/2016	10/14/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	10/10/2016	10/14/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	10/10/2016	10/14/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1,2	10/10/2016	10/14/2016	IP 71124.04	Occupational Dose Assessment	
1	10/10/2016	10/14/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	

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

**Susquehanna**  
**Inspection / Activity Plan**  
**01/01/2016 - 12/31/2017**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>71124.08 - RADWASTE</b>		<b>1</b>
1, 2	10/17/2016	10/21/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>7111108G - U2 INSERVICE INSPECTION</b>		<b>1</b>
2	03/13/2017	03/17/2017	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>RS1234 - HP INSPECTION</b>		<b>1</b>
1, 2	03/13/2017	03/17/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/13/2017	03/17/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/13/2017	03/17/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
			<b>RS7PIP - REMP/PUBLIC PI</b>		<b>1</b>
1, 2	07/10/2017	07/14/2017	IP 71124.07	Radiological Environmental Monitoring Program	
1	07/10/2017	07/14/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>7111105T - TRIENNIAL FIRE PROTECTION</b>		<b>4</b>
1, 2	08/14/2017	08/18/2017	IP 7111105T	Fire Protection [Triennial]	
1, 2	08/28/2017	09/01/2017	IP 7111105T	Fire Protection [Triennial]	
			<b>7111111B - SQ REQUAL INSP WITH P/F RESULTS</b>		<b>2</b>
1, 2	10/30/2017	11/03/2017	IP 7111111B	Licensed Operator Requalification Program	
			<b>EP - EP PROGRAM INSPECTION</b>		<b>1</b>
1, 2	10/30/2017	11/03/2017	IP 7111402	Alert and Notification System Testing	
1, 2	10/30/2017	11/03/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	10/30/2017	11/03/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	10/30/2017	11/03/2017	IP 71151	Performance Indicator Verification	
			<b>RS1234 - HP INSPECTION</b>		<b>1</b>
1, 2	10/02/2017	10/06/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	10/02/2017	10/06/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	10/02/2017	10/06/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	10/02/2017	10/06/2017	IP 71124.04	Occupational Dose Assessment	
1	10/02/2017	10/06/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	

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