



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

September 1, 2015

Mr. Robert Braun
President and Chief Nuclear Officer
PSEG Nuclear LLC – N09
P.O. Box 236
Hancocks Bridge, NJ 08038

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SALEM NUCLEAR GENERATING
STATION, UNIT NOS. 1 AND 2 (REPORT 05000272/2015005 AND
05000311/2015005)**

Dear Mr. Braun:

On August 12, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Salem Nuclear Generating Station, Unit Nos. 1 and 2 (Salem). The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2014 through June 30, 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 Salem Unit 2 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, 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 your facility.

The NRC determined the performance at Salem Unit 1 during the most recent quarter was within the Regulatory Response Column of the NRC's ROP Action Matrix because in the fourth quarter of 2014, the "Unplanned Scrams per 7,000 hours critical" PI crossed the green to white threshold, which moved Salem Unit 1 to the Regulatory Response Column from the Licensee Response Column. You were notified of this change to the ROP Action Matrix Column in the NRC Annual Assessment Letter 05000272/2014001, issued March 4, 2015 (ADAMS Accession No. ML15062A086). Although the above described PI returned to the nominal, expected range (i.e., green) in the second quarter of 2015, completion of the required supplemental inspection in accordance with Inspection Procedure (IP) 95001 "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," is required to return Salem Unit 1 to the Licensee Response Column. On May 29, 2015, your staff notified the NRC of your readiness to conduct a supplemental inspection to review the actions taken to address the White PI described above. In response, the NRC conducted a supplemental inspection in accordance with IP 95001 during the week of July 20, 2015. The objectives of the IP 95001 inspection were to provide assurance that the root cause and contributing causes of risk significant performance issues were understood, the extent of condition and extent of cause were understood, and the corrective actions were sufficient to address the root and contributing causes and prevent recurrence. As of the date of this letter, the IP 95001 inspection report and assessment follow up letter have not been issued. The NRC will notify you of the results of this inspection via a separate inspection report which will be publically available.

The enclosed inspection plan lists the inspections scheduled through June 30, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half 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 addition to baseline inspections, the NRC will conduct Inspection Procedure (IP) 60855.1, "Operation of an Independent Spent Fuel Storage Installation at Operating Plants." Additionally, the NRC will conduct IP 71003, "Post-Approval Site Inspection For License Renewal," to verify the license conditions added as part of the renewed operating license, regulatory commitments, selected aging management programs (AMPs), and time limited aging analyses (TLAAs) are implemented and/or completed in accordance with 10 CFR Part 54. As discussed below, the NRC will also perform Temporary Instruction (TI) 2515-191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

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," which 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," which 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 on-site portion of the audit has been completed at Salem 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 Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

From July 1, 2014 through June 30, 2015, the NRC issued two Severity Level IV traditional enforcement violations associated with impeding the regulatory process (one) and deliberate misconduct (one). Therefore, the NRC plans to conduct Inspection Procedure 92702, "Follow-up on Corrective Actions for Violations and Deviations," to follow-up on these violations.

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 Agencywide Documents Access and Management 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 Glenn Dentel at (610) 337-5233 with any questions you have regarding this letter.

Sincerely,

/RA/

Michael L. Scott, Director
Division of Reactor Projects

Docket Nos. 50-272, 50 311
License Nos. DPR 70, DPR 75

Enclosure: Salem Inspection/Activity Plan

cc w/encl: Distribution via ListServ

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Sincerely,

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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	RI/DRP	
NAME	PFinney/MSD per email	MDraxton/ MSD	GDentel/ GTD	MScott/ MLS	
DATE	08/24 /15	08/25 /15	08/25 /15	08/ 31/15	

OFFICIAL RECORD COPY

Salem
Inspection / Activity Plan
07/01/2015 - 06/30/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
EP - EP PROGRAM INSPECTION					
1, 2	07/13/2015	07/17/2015	IP 7111402	Alert and Notification System Testing	2
1, 2	07/13/2015	07/17/2015	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	07/13/2015	07/17/2015	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
95001 - SUPPLEMENTAL INSPECTION FOR WHITE PI					
1	07/20/2015	07/24/2015	IP 95001	Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area	2
71003 - UNIT 1 LR COMMITMENT INSPECTION PHASE II					
1	07/20/2015	07/24/2015	IP 71003	Post-Approval Site Inspection for License Renewal	5
1	08/03/2015	08/07/2015	IP 71003	Post-Approval Site Inspection for License Renewal	
711111B - REQUAL INSP W/ P/F RESULTS					
1, 2	09/07/2015	09/11/2015	IP 711111B	Licensed Operator Requalification Program	2
ISFSI - ISFSI LOADING INSPECTION					
1, 2	07/27/2015	07/31/2015	IP 60855	Operation Of An ISFSI	2
1, 2	07/27/2015	07/31/2015	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
12/14EXM - INITIAL OL EXAM					
1	11/16/2015	11/20/2015	U01910	FY16 - SALEM INITIAL OPERATOR LICENSING EXAM	4
1	12/14/2015	12/24/2015	U01910	FY16 - SALEM INITIAL OPERATOR LICENSING EXAM	
71124 - RADIATION PROTECTION					
1, 2	10/05/2015	10/09/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	1
1, 2	10/05/2015	10/09/2015	IP 71124.02	Occupational ALARA Planning and Controls	
2	10/05/2015	10/09/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	10/05/2015	10/09/2015	IP 71124.04	Occupational Dose Assessment	
1, 2	10/05/2015	10/09/2015	IP 71124.05	Radiation Monitoring Instrumentation	
71124.08 - RADWASTE					
1, 2	10/19/2015	10/23/2015	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	1
7111108P - U2 INSERVICE INSPECTION					
2	11/02/2015	11/13/2015	IP 7111108P	Inservice Inspection Activities - PWR	1
71124 - RADIATION PROTECTION					
2	11/02/2015	11/06/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	1
2	11/02/2015	11/06/2015	IP 71124.02	Occupational ALARA Planning and Controls	
2	11/02/2015	11/06/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
2	11/02/2015	11/06/2015	IP 71124.04	Occupational Dose Assessment	
2	11/02/2015	11/06/2015	IP 71124.05	Radiation Monitoring Instrumentation	

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

Salem
Inspection / Activity Plan
07/01/2015 - 06/30/2017

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
71124 - RADIATION PROTECTION					1
1, 2	11/16/2015	11/20/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	11/16/2015	11/20/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	11/16/2015	11/20/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	11/16/2015	11/20/2015	IP 71124.04	Occupational Dose Assessment	
1, 2	11/16/2015	11/20/2015	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	11/16/2015	11/20/2015	IP 71151	Performance Indicator Verification	
71124 - RADIATION PROTECTION					1
1, 2	03/07/2016	03/11/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/07/2016	03/11/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/07/2016	03/11/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/07/2016	03/11/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	03/07/2016	03/11/2016	IP 71124.05	Radiation Monitoring Instrumentation	
EP - EP EXERCISE EVALUATION					4
1, 2	05/16/2016	05/20/2016	IP 7111401	Exercise Evaluation	
71124 - RADIATION PROTECTION					1
1	04/11/2016	04/15/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/11/2016	04/15/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/11/2016	04/15/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/11/2016	04/15/2016	IP 71124.04	Occupational Dose Assessment	
1	04/11/2016	04/15/2016	IP 71124.05	Radiation Monitoring Instrumentation	
71003 - U1 LR COMMITMENTS - OUTAGE					1
1	04/18/2016	04/22/2016	IP 71003	Post-Approval Site Inspection for License Renewal	
ISI - U1 INSERVICE INSPECTION					1
1	04/18/2016	04/29/2016	IP 7111108P	Inservice Inspection Activities - PWR	
71124 - RADIATION PROTECTION					1
1, 2	05/16/2016	05/20/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	05/16/2016	05/20/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	05/16/2016	05/20/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	05/16/2016	05/20/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	05/16/2016	05/20/2016	IP 71124.05	Radiation Monitoring Instrumentation	
71124 - ENVIRONMENTAL					1
1	06/06/2016	06/10/2016	IP 71124.07	Radiological Environmental Monitoring Program	

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Inspection / Activity Plan
07/01/2015 - 06/30/2017

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Start	End				
711117T - MODS INSPECTION					3
1, 2	07/18/2016	07/22/2016	IP 711117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
1, 2	08/01/2016	08/05/2016	IP 711117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
EXM12/12 - SALEM INITIAL EXAMINATION					4
1	11/14/2016	11/18/2016	U01930	FY17-SALEM INITIAL OPERATOR LICENSING EXAM	
1	12/12/2016	12/23/2016	U01930	FY17-SALEM INITIAL OPERATOR LICENSING EXAM	
71124 - RADIATION PROTECTION					1
1, 2	08/08/2016	08/12/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	08/08/2016	08/12/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	08/08/2016	08/12/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	08/08/2016	08/12/2016	IP 71124.05	Radiation Monitoring Instrumentation	
71124 - RADIATION PROTECTION					1
1, 2	11/07/2016	11/11/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	11/07/2016	11/11/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	11/07/2016	11/11/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	11/07/2016	11/11/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	11/07/2016	11/11/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
711107T - TRIENNIAL HEAT SINK					1
1, 2	11/14/2016	11/18/2016	IP 7111107T	Heat Sink Performance	
TI-191 - FUKUSHIMA LESSONS-LEARNED					1
1, 2	11/14/2016	11/18/2016	IP 2515/191	Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012	
71124 - RADIATION PROTECTION					1
1, 2	04/03/2017	04/07/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	04/03/2017	04/07/2017	IP 71124.02	Occupational ALARA Planning and Controls	
2	04/03/2017	04/07/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
2	04/03/2017	04/07/2017	IP 71124.04	Occupational Dose Assessment	
1, 2	04/03/2017	04/07/2017	IP 71124.05	Radiation Monitoring Instrumentation	
7111108P - U2 INSERVICE INSPECTION					1
2	04/24/2017	05/05/2017	IP 7111108P	Inservice Inspection Activities - PWR	
71124 - RADIATION PROTECTION					1
1, 2	05/01/2017	05/05/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	05/01/2017	05/05/2017	IP 71124.02	Occupational ALARA Planning and Controls	
2	05/01/2017	05/05/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	

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	Start	End			
			71124 - RADIATION PROTECTION		1
1, 2	05/01/2017	05/05/2017	IP 71124.04	Occupational Dose Assessment	
1, 2	05/01/2017	05/05/2017	IP 71124.05	Radiation Monitoring Instrumentation	
			71152B - PI&R BIENNIAL		2
1, 2	05/22/2017	05/26/2017	IP 71152B	Problem Identification and Resolution	
1, 2	06/05/2017	06/09/2017	IP 71152B	Problem Identification and Resolution	
			71124 - RADIOACTIVE EFFLUENTS		1
1, 2	06/12/2017	06/16/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	06/12/2017	06/16/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			CDBI - COMPONENT DESIGN BASIS INSPECTION		6
1, 2	06/12/2017	06/16/2017	IP 7111121	Component Design Bases Inspection	
1, 2	06/26/2017	06/30/2017	IP 7111121	Component Design Bases Inspection	