



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

August 31, 2016

Mr. Peter P. Sena, III  
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 05000272/2016005 AND 05000311/2016005)**

Dear Mr. Sena:

On August 9, 2016, 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, 2015 through June 30, 2016. 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 that overall, Salem Unit 1 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Salem Unit 1 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 for Salem Unit 1.

The NRC determined that overall, Salem Unit 2 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Salem Unit 2 during the most recent quarter was within the Regulatory Response Column of the NRC's ROP Action Matrix due to a White PI for "Unplanned Scrams per 7,000 Hours Critical." This PI changed to White in the second quarter of 2016 due to a reactor trip on June 28, 2016, preceded by three other unplanned reactor trips (August 5, 2015, February 4, 2016, and February 14, 2016) within the assessment period.

Therefore, in addition to ROP baseline inspections, the NRC plans to conduct a supplemental inspection at Unit 2 in accordance with Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area," upon notification of your readiness. The inspection will be focused on ensuring that root causes and contributing causes of the unplanned scrams are understood, the extent of condition and causes are identified, and the corrective actions implemented are sufficient to prevent recurrence.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last half of the inspection period in 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 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," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the Salem site, the Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections, the full implementation of the orders mentioned above by performing Temporary Instruction 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 Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," (ADAMS Accession No. ML16104A158) the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct assessment reviews and communicate changes in the assessment of licensee performance quarterly, and will also issue end-of-cycle assessment letters.

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 Document Access 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).

P. Sena

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Please contact Fred Bower at (610) 337-5200 with any questions you have regarding this letter.

Sincerely,

***/RA/***

Michael L. Scott, Director  
Division of Reactor Projects

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

Enclosure: Salem Inspection/Activity Plan

Cc w/encl: Distribution via ListServ

P. Sena

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Please contact Fred Bower at (610) 337-5200 with any questions you have regarding this letter.

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DOCUMENT NAME: G:\DRP\BRANCH3\Assessment\ROP 17\Mid-cycle packages\MC Letters\Salem\Salem MC Assessment Letter Final.docx

ADAMS ACCESSION NUMBER: **ML16242A099**

<input 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	R1/DRP	R1/DRP	R1/DRP	R1/DRP	R1/DRP
NAME	RVadella/RB for	MDraxton	PFinney	FBower	MScott
DATE	08/22/16	08/18/16	08/22/16	08/28/16	08/31/16

OFFICIAL RECORD COPY

**Salem**  
**Inspection / Activity Plan**  
**07/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>711117T - MODS INSPECTION</b>		<b>4</b>
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	
			<b>ISFSI - ISFSI FOLLOWUP INSPECTION</b>		<b>2</b>
1, 2	07/26/2016	07/26/2016	IP 60855	Operation Of An ISFSI	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
1, 2	07/25/2016	07/29/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	07/25/2016	07/29/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	07/25/2016	07/29/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	07/25/2016	07/29/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	07/25/2016	07/29/2016	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>EXM12/12 - SALEM INITIAL OL EXAMINATION</b>		<b>4</b>
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	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
1, 2	08/22/2016	08/26/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	08/22/2016	08/26/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	08/22/2016	08/26/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	08/22/2016	08/26/2016	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>711107T - TRIENNIAL HEAT SINK</b>		<b>1</b>
1, 2	11/14/2016	11/18/2016	IP 7111107T	Heat Sink Performance	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
1, 2	12/12/2016	12/16/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	12/12/2016	12/16/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	12/12/2016	12/16/2016	IP 71124.04	Occupational Dose Assessment	
1, 2	12/12/2016	12/16/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	12/12/2016	12/16/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
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	

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

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**Inspection / Activity Plan**  
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Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>EP - EP PROGRAM INSPECTION</b>		<b>1</b>
1, 2	05/15/2017	05/19/2017	IP 7111402	Alert and Notification System Testing	
1, 2	05/15/2017	05/19/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	05/15/2017	05/19/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	05/15/2017	05/19/2017	IP 71151	Performance Indicator Verification	
			<b>7111108P - U2 INSERVICE INSPECTION</b>		<b>1</b>
2	04/24/2017	05/05/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
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	
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	
			<b>71152B - PI&amp;R BIENNIAL</b>		<b>2</b>
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	
			<b>71124 - RADIOACTIVE EFFLUENTS</b>		<b>1</b>
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	
			<b>CDBI - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>
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	
1, 2	07/10/2017	07/14/2017	IP 7111121	Component Design Bases Inspection	
			<b>7111111B - SALEM REQUAL INSP WITH P/F RESULTS</b>		<b>2</b>
1, 2	09/12/2017	09/16/2017	IP 7111111B	Licensed Operator Requalification Program	
			<b>1/22EXM - SALEM INITIAL EXAM</b>		<b>4</b>
1	12/11/2017	12/15/2018	U01949	FY18-SALEM INITIAL OPERATOAR LICENSING EXAM	
1	01/22/2018	02/02/2018	U01949	FY18-SALEM INITIAL OPERATOAR LICENSING EXAM	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
1, 2	08/21/2017	08/25/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	08/21/2017	08/25/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	08/21/2017	08/25/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	08/21/2017	08/25/2017	IP 71124.04	Occupational Dose Assessment	

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Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
1, 2	08/21/2017	08/25/2017	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>71124.08 - RADWASTE</b>		<b>1</b>
1, 2	10/16/2017	10/20/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>7111108P - U1 INSERVICE INSPECTION</b>		<b>1</b>
1	10/23/2017	11/03/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>71124 - RADIATION PROTECTION</b>		<b>1</b>
1	10/23/2017	10/27/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	10/23/2017	10/27/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	10/23/2017	10/27/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	10/23/2017	10/27/2017	IP 71124.04	Occupational Dose Assessment	
1	10/23/2017	10/27/2017	IP 71124.05	Radiation Monitoring Instrumentation	
			<b>71124 - RADIATION PROTECTION AND PI</b>		<b>1</b>
1, 2	12/04/2017	12/08/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	12/04/2017	12/08/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	12/04/2017	12/08/2017	IP 71124.04	Occupational Dose Assessment	
1, 2	12/04/2017	12/08/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	12/04/2017	12/08/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>7111105T - TRIENNIAL FIRE PROTECTION</b>		<b>4</b>
1, 2	02/12/2018	02/16/2018	IP 7111105T	Fire Protection [Triennial]	
1, 2	02/26/2018	03/02/2018	IP 7111105T	Fire Protection [Triennial]	
			<b>EP - EP EXERCISE INSPECTION</b>		<b>4</b>
1, 2	05/21/2018	05/25/2018	IP 7111401	Exercise Evaluation	

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