



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

September 2, 2014

Mr. Thomas P. Joyce
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 05000272/2014006 AND
05000311/2014006)**

Dear Mr. Joyce:

On August 14, 2014, 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 in addition to inspection results and enforcement actions from July 1, 2013 through June 30, 2014. 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 was operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Salem during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all performance indicators demonstrated that your performance was within the nominal, expected range (i.e, green). Therefore, the NRC plans to conduct Reactor Oversight Process baseline inspections at your facility.

As a result of the Safety Culture Common Language Initiative, the terminology and coding of cross-cutting aspects were revised. All cross-cutting aspects identified during inspections conducted in calendar year 2014 reflect this revision to Inspection Manual Chapter (IMC) 0310. Cross-cutting aspects identified in 2013 using the 2013 terminology were converted to the latest revision in accordance with the cross-reference in IMC 0310 during the mid-cycle assessment review and evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305.

The enclosed inspection plan lists the inspections scheduled through December 31, 2015. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. In addition to baseline inspections, the NRC will perform Inspection Procedure (IP) 71003, "Post-Approval Site Inspection for License

Renewal.” 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,” 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. This audit includes an onsite component in order for the NRC to evaluate licensee plans for complying with the Orders, as described in site-specific submittals, and to receive and review information relative to associated open items. This onsite activity occurs in the months prior to a declaration of compliance for the first unit at each site, and will aid staff in development of an ultimate Safety Evaluation for the site. The onsite component for Salem was completed the week of August 5, 2014.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 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 component of the NRC’s Agencywide Document 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 me at (610) 337-5233 with any questions you have regarding this letter.

Sincerely,

/RA/

Glenn T. Dentel, Chief
Projects Branch 3
Division of Reactor Projects

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

Enclosure: Inspection Plan

cc w/encl: Distribution via ListServ

Renewal.” 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,” 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. This audit includes an onsite component in order for the NRC to evaluate licensee plans for complying with the Orders, as described in site-specific submittals, and to receive and review information relative to associated open items. This onsite activity occurs in the months prior to a declaration of compliance for the first unit at each site, and will aid staff in development of an ultimate Safety Evaluation for the site. The onsite component for Salem was completed the week of August 5, 2014.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 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 component of the NRC’s Agencywide Document 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 me at (610) 337-5233 with any questions you have regarding this letter.

Sincerely,
/RA/
 Glenn T. Dentel, Chief
 Projects Branch 3
 Division of Reactor Projects

Docket Nos.: 50-272, 50-311
 License Nos.: DPR-70, DPR-75
 Enclosure: Inspection Plan
 cc w/encl: Distribution via ListServ

Distribution: See next page

DOC NAME: S:\ROP ASSESSMENT MEETINGS\ROP-15 MID-CYCLE REVIEW\BRANCH 3\SALEM\2014 MC LETTER SAL FINAL.DOCX
 ADAMS Accession No.: **ML14239A132**

| | | | | | |
|--|-----------------------------|---|--------------|---|--|
| <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 | | |
| NAME | AmiPatel/ via email per MSD | MDraxton/ MSD | GDentel/ GTD | | |
| DATE | 08/27/14 | 08/ 25 /14 | 08/ 27/14 | | |

Distribution w/encl:

W. Dean, RA
D. Lew, DRA
H. Nieh, DRP
M. Scott, DRP
J. Trapp, DRS
B. Welling, DRS
G. Dentel, DRP
R. Barkley, DRP
M. Draxton, DRP
B. Reyes, DRP
P. Finney, DRP, SRI
A. Ziedonis, DRP RI
C. Ott, DRP, AA
A. Bowers, RI OEDO
R. J. Powell, DRP
DRS Branch Chiefs (6)
N. McNamara, RI, SLO
D. Tift, RI, SLO
D. Screnci, RI, PAO
N. Sheehan, RI, PAO
RidsNrrPMSalem Resource
RidsNrrDorlLp1-2 Resource
ROPreports Resource
RidsNrrDirslpab Resource
ROPassessment Resource

Salem
Inspection / Activity Plan
07/01/2014 - 12/31/2015

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|-------------|---------------|------------|---|--|----------------------|
| | Start | End | | | |
| | | | CDBI - CDBI | | 6 |
| 1, 2 | 07/07/2014 | 07/11/2014 | IP 7111121 | Component Design Bases Inspection | |
| 1, 2 | 07/21/2014 | 07/25/2014 | IP 7111121 | Component Design Bases Inspection | |
| | | | 12/8EXAM - INITIAL OL EXAM | | 5 |
| 1 | 11/10/2014 | 11/14/2014 | U01894 | FY15-SALEM INITIAL OPERATOR LICENSING EXAM | |
| 1 | 12/08/2014 | 12/19/2014 | U01894 | FY15-SALEM INITIAL OPERATOR LICENSING EXAM | |
| | | | 71124.07 - REMP | | 1 |
| 1, 2 | 08/25/2014 | 08/29/2014 | IP 71124.07 | Radiological Environmental Monitoring Program | |
| | | | INSP - RADIATION PROTECTION | | 1 |
| 1, 2 | 09/29/2014 | 10/03/2014 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 09/29/2014 | 10/03/2014 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 09/29/2014 | 10/03/2014 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 09/29/2014 | 10/03/2014 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 09/29/2014 | 10/03/2014 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| | | | 7111108P - U1 INSERVICE INSPECTION | | 1 |
| 1 | 10/27/2014 | 11/07/2014 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | INSP - RADIATION PROTECTION | | 1 |
| 1, 2 | 10/27/2014 | 10/31/2014 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 10/27/2014 | 10/31/2014 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 10/27/2014 | 10/31/2014 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 10/27/2014 | 10/31/2014 | IP 71124.04 | Occupational Dose Assessment | |
| 1 | 10/27/2014 | 10/31/2014 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| | | | INSP - RADIATION PROTECTION | | 1 |
| 1, 2 | 11/17/2014 | 11/21/2014 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 11/17/2014 | 11/21/2014 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 11/17/2014 | 11/21/2014 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 11/17/2014 | 11/21/2014 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 11/17/2014 | 11/21/2014 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| | | | 71124 - RADIATION PROTECTION | | 1 |
| 1 | 12/01/2014 | 12/05/2014 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1 | 12/01/2014 | 12/05/2014 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1 | 12/01/2014 | 12/05/2014 | IP 71124.04 | Occupational Dose Assessment | |
| 1 | 12/01/2014 | 12/05/2014 | 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
07/01/2014 - 12/31/2015

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|-------------|---------------|------------|---|---|----------------------|
| | Start | End | | | |
| | | | 71124 - RADIATION PROTECTION | | 1 |
| 1 | 12/01/2014 | 12/05/2014 | IP 71151-OR01 | | |
| 1 | 12/01/2014 | 12/05/2014 | IP 71151-PR01 | | |
| | | | TRI FI - TRIENNIAL FIRE PROTECTION INSPECTION | | 4 |
| 1, 2 | 01/26/2015 | 01/30/2015 | IP 7111105T | Fire Protection [Triennial] | |
| 1, 2 | 02/09/2015 | 02/13/2015 | IP 7111105T | Fire Protection [Triennial] | |
| | | | ISFSI - ISFSI LOADING INSPECTION | | 1 |
| 1, 2 | 05/01/2015 | 06/30/2015 | IP 60855 | Operation Of An ISFSI | |
| 1, 2 | 05/01/2015 | 06/30/2015 | IP 60855.1 | Operation of an Independent Spent Fuel Storage Installation at Operating Plants | |
| | | | PI&R - PI&R - BIENNIAL | | 1 |
| 1, 2 | 05/04/2015 | 05/08/2015 | IP 71152B | Problem Identification and Resolution | |
| 1, 2 | 05/18/2015 | 05/22/2015 | IP 71152B | Problem Identification and Resolution | |
| | | | 71124 - EFFLUENTS | | 1 |
| 1, 2 | 06/15/2015 | 06/19/2015 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| 1, 2 | 06/15/2015 | 06/19/2015 | IP 71124.06 | Radioactive Gaseous and Liquid Effluent Treatment | |
| | | | EP - EP PROGRAM INSPECTION | | 2 |
| 1, 2 | 06/22/2015 | 06/26/2015 | IP 7111402 | Alert and Notification System Testing | |
| 1, 2 | 06/22/2015 | 06/26/2015 | IP 7111403 | Emergency Preparedness Organization Staffing and Augmentation System | |
| 1, 2 | 06/22/2015 | 06/26/2015 | IP 7111405 | Correction of Emergency Preparedness Weaknesses and Deficiencies | |
| | | | 71003 - UNIT 1 LR COMMITMENT INSPECTION PHASE II | | 6 |
| 1 | 07/20/2015 | 07/24/2015 | IP 71003 | Post-Approval Site Inspection for License Renewal | |
| 1 | 08/03/2015 | 08/07/2015 | IP 71003 | Post-Approval Site Inspection for License Renewal | |
| | | | 7111111B - REQUAL INSP W/ P/F RESULTS | | 2 |
| 1, 2 | 09/21/2015 | 09/25/2015 | IP 7111111B | Licensed Operator Requalification Program | |
| | | | 12/14EXM - INITIAL OL EXAM | | 4 |
| 1 | 11/16/2015 | 11/20/2015 | U01910 | FY16 - SALEM INITIAL OPERATOR LICENSING EXAM | |
| 1 | 12/14/2015 | 12/24/2015 | U01910 | FY16 - SALEM INITIAL OPERATOR LICENSING EXAM | |
| | | | 71124 - RADIATION PROTECTION | | 1 |
| 1, 2 | 10/05/2015 | 10/09/2015 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 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 | |

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

Salem
Inspection / Activity Plan
07/01/2014 - 12/31/2015

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|-------------|---------------|------------|---|---|----------------------|
| | Start | End | | | |
| | | | 71124.08 - RADWASTE | | 1 |
| 1, 2 | 10/19/2015 | 10/23/2015 | IP 71124.08 | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation | |
| | | | 71124 - RADIATION PROTECTION | | 1 |
| 2 | 11/02/2015 | 11/06/2015 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 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 | |
| | | | 7111108P - U2 INSERVICE INSPECTION | | 1 |
| 2 | 11/09/2015 | 11/20/2015 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | 71124 - RADIATION PROTECTION | | 1 |
| 1, 2 | 12/07/2015 | 12/11/2015 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 12/07/2015 | 12/11/2015 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 12/07/2015 | 12/11/2015 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 12/07/2015 | 12/11/2015 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 12/07/2015 | 12/11/2015 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| 1, 2 | 12/07/2015 | 12/11/2015 | IP 71151 | Performance Indicator Verification | |

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