November 14, 2009

Memo for the File

Salem Nuclear Generating Station, Units 1 and 2 –

NRC Integrated Inspection Report, dated November 4, 2009

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

November 4, 2009

Mr. Thomas P. Joyce
President and Chief Nuclear Officer
PSEG Nuclear LLC - N09
P. O. Box 236
Hancock's Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2 - NRC INTEGRATED INSPECTION REPORT 05000272/2009004 and 05000311/2009004

Dear Mr. Joyce:

On September 30, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Salem Nuclear Generating Station, Unit Nos. 1 and 2. The enclosed report documents the inspection results discussed on October 5, 2009, with Mr. Braun and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) 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).

Sincerely,

/RA/

Arthur L. Burritt, Chief
Division of Reactor Projects
Projects Branch 3

Docket Nos: 50-272; 50-311
License Nos: DPR-70; DPR-75

Enclosure: Inspection Report 05000272/2009004 and 05000311/2009004
w/Attachment: Supplemental Information

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Sincerely,
/RA/
Arthur L. Burritt, Chief
Division of Reactor Projects
Projects Branch 3

Distribution w/encl.
S. Collins, RA **(R1ORAMAIL Resource)**
M. Dapas, DRA **(R1ORAMAIL Resource)**
D. Lew, DRP **(R1DRPMAIL Resource)**
J. Clifford, DRP **(R1DRPMAIL Resource)**
A. Burritt, DRP
L. Cline, DRP
A. Turilin, DRP
R. Moore, DRP
D. Schroeder, DRP, SRI
H. Balian, DRP, RI
L. Trocine, RI OEDO
RidsNrrPMSalem Resource
RidsNrrDorlLpl1-2 Resource
ROPreportsResource@nrc.gov

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos:	50-272, 50-311
License Nos:	DPR-70, DPR-75
Report No:	05000272/2009004 and 05000311/2009004
Licensee:	PSEG Nuclear LLC (PSEG)
Facility:	Salem Nuclear Generating Station, Unit Nos. 1 and 2
Location:	P.O. Box 236 Hancocks Bridge, NJ 08038
Dates:	July 1, 2009 through September 30, 2009
Inspectors:	D. Schroeder, Senior Resident Inspector H. Balian, Resident Inspector E. Bonney, Reactor Inspector P. Presby, Operations Engineer J. Furia, Senior Health Physicist D. Silk, Senior Operations Engineer R. Moore, Project Engineer
Approved By:	Arthur L. Burritt, Chief Projects Branch 3 Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000272/2009004, 05000311/2009004; 07/01/2009 - 09/30/2009; Salem Nuclear Generating Station Unit Nos. 1 and 2; Routine Integrated Report.

The report covered a three-month period of inspection by resident inspectors, and announced inspections by a regional radiation specialist and a regional operator licensing specialist. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

No findings of significance were identified.

REPORT DETAILS

Summary of Plant Status

Salem Nuclear Generating Station Unit No. 1 (Unit 1) began the period at full power. On September 26, operators lowered Unit 1 to 86% power to conduct main turbine valve testing. Operators returned Unit 1 to full power the same day. Unit 1 operated at or near full power for the remainder of the inspection period.

Salem Nuclear Generating Station Unit No. 2 (Unit 2) began the period at full power. Unit 2 operated at or near full power for the duration of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

1R01 Adverse Weather Protection (71111.01 – 1 Sample)

.1 Evaluate Readiness to Cope with External Flooding

a. Inspection Scope

During the week of September 8, 2009, the inspectors completed one adverse weather protection inspection sample. The inspectors reviewed PSEG's preparations and compensatory measures for severe weather conditions that posed a risk of flooding. The inspectors interviewed engineering and operations personnel regarding the actions taken to prepare for the impending severe weather and walked down risk significant systems to independently assess the adequacy of PSEG's preparations. Specifically, the inspectors reviewed the condition of service water intake structure (SWIS) external flood protection. The inspectors verified that degraded conditions with the potential to impact safety-related systems and components were reported in the corrective action program (CAP). Corrective action notifications written for degraded conditions were reviewed to ensure that operability of the affected components in the SWIS was not impacted. For those areas where operator actions were credited for maintaining safety-related system operability during a flooding event, the inspectors also verified that the procedures used to direct those actions could be fully implemented during the event. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04 – 3 Samples)

.1 Partial Walkdown

a. Inspection Scope

The inspectors completed three partial equipment alignment inspection samples. The inspectors walked down the systems to verify the operability of redundant or diverse trains and components when safety equipment was unavailable. The inspectors focused their review on potential discrepancies that could impact the function of the system and increase plant risk. The inspectors reviewed applicable operating procedures, walked down control system components, and verified that selected breakers, valves, and support equipment were in the correct position to support system operation. The inspectors also verified that PSEG properly utilized its corrective action program to identify and resolve equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers. Documents reviewed are listed in the Attachment. The inspectors walked down the systems listed below:

- Unit 1 component cooling water (CCW) on July 14 following maintenance on the 11 CCW heat exchanger;
- Unit 1 service water (SW) on September 14 just prior to unavailability of the 11 and 15 SW pumps for de-silting of the associated bays;
- Unit 1 emergency diesel generators (EDG) on September 30 during planned unavailability of the 1A EDG.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q – 6 Samples)

.1 Fire Protection - Tours

a. Inspection Scope

The inspectors completed six quarterly fire protection inspection samples. The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that combustibles and ignition sources were controlled in accordance with PSEG's administrative procedures; fire detection and suppression equipment was available for use; that passive fire barriers were maintained in good material condition; and that compensatory measures for out-of-service, degraded, or inoperable fire protection equipment were implemented in accordance with PSEG's fire plan. Documents reviewed are listed in the Attachment.

- Unit 1 and Unit 2 4160V Switchgear Rooms;
- Unit 1 and Unit 2 Diesel Generator Area Elevations 100' and 122';
- Unit 1 and Unit 2 Charging Pumps and Spray Additive Tank Areas.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06 - 1 Sample)

.1 Underground Bunkers/Manholes Subject to Flooding

a. Inspection Scope

The inspectors completed one flood protection measures inspection sample. The inspectors evaluated the condition of safety-related cables located in underground bunkers and manholes. Specifically, the inspectors examined photographic evidence of conditions in manhole vault MH-SWI-1 and directly inspected conditions in the service water tunnel and service water trench. The inspectors verified that safety-related cables are not submerged in water, the integrity of cables and splices, the condition of cable support structures, and the ability to dewater these structures.

In addition, the inspectors evaluated the impact of structures recently constructed above the service water electrical cable vaults. Specifically, PSEG constructed concrete egress pads west of the Unit 1 fuel handling building (FHB) to support movement of spent fuel from the spent fuel pool to dry cask storage pad. The inspectors evaluated provisions made to adequately support the weight of the egress pad and fuel movement equipment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q – 1 Sample, 71111.11B – 1 Sample)

.1 Requalification Activities Review by Resident Staff.

a. Inspection Scope

The inspectors completed one quarterly licensed operator requalification program inspection sample. Specifically, the inspectors observed two annual licensed operator requalification operating tests administered to a single crew on July 13, 2009. The first scenario consisted of a routine rod control problem, a steam generator water level instrument failure, a main turbine runback caused by a stator water malfunction, a power reduction necessitated by axial flux distribution out of normal band, and a reactor coolant leak that degraded to a large break loss of coolant accident that was compounded by malfunctions in a safeguards equipment cabinet and the containment spray system. The second scenario consisted of a main turbine governor valve malfunction, a power range nuclear instrument failure that required operators to remove the nuclear instrument from service, an additional main turbine governor valve failure that necessitated a rapid load reduction, a main steam leak downstream of main steam isolation valves compounded by a main steam isolation valve failure to close, and a steam generator tube rupture.

The inspectors reviewed operator actions to implement the abnormal and emergency operating procedures. The inspectors examined the operators' ability to perform actions associated with high-risk activities, the Emergency Plan, previous lessons learned items, and the correct use and implementation of procedures. The inspectors observed and reviewed the training evaluator's critique of operator performance and verified that deficiencies were adequately identified, discussed, and entered into the corrective action program, as appropriate. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 Biennial Review by Regional Specialist.

a. Inspection Scope

The inspectors completed one biennial requalification program inspection sample. The following inspection activities were performed using NUREG-1021, Rev. 9, Supplement 1, "Operator Licensing Examination Standards for Power Reactors," Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program," NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)," and 10 CFR 55.46, "Simulator Rule," as acceptance criteria.

A review was conducted of recent operating history documentation found in inspection reports, PSEG's corrective action program, and the most recent NRC plant issues matrix. The inspectors also reviewed specific events from the PSEG's corrective action program that indicated possible training deficiencies, to verify they had been addressed appropriately. The resident inspectors were also consulted for insights regarding licensed operators' performance. These reviews did not detect any operational events that were indicative of possible training deficiencies. The documents reviewed are listed in the Attachment.

The inspectors reviewed two sets of 2008 comprehensive biennial written exams, and three sets of scenarios and job performance measures (JPMs) administered during this current exam cycle (2009) to verify that the quality of these exams met the criteria established in the Examination Standards and 10 CFR 55.59.

The week of the inspection, the inspectors observed the administration of operating examinations to one operating crew. The operating examinations consisted of two simulator scenarios and one set of five JPMs administered to each individual.

Conformance with operator license conditions was verified by reviewing the following records:

- Reviewed two crews' medical records and confirmed all records were complete, that restrictions noted by the doctor were reflected on the individual's license, and that the exams were given within 24 months.

- Proficiency watch-standing and reactivation records. A sample of two licensed operator reactivation records and a sample of watch-standing documentation were reviewed to ensure time on shift was current and conformed with the requirements of 10 CFR 55.
- Remediation training records for one licensed operator were reviewed for the past two-year training cycle.

The inspectors interviewed instructors, training and operations management personnel, and reviewed feedback records to ensure the requalification program was meeting the needs of the operators and was responsive to their noted deficiencies and recommended changes.

For the site specific simulator, the inspectors observed simulator performance during the conduct of the examinations, and reviewed discrepancy reports to verify compliance with the requirements of 10 CFR 55.46.

The inspectors reviewed a sample of simulator tests including transients, steady state operations, and malfunction tests. The inspectors verified that a sample of completed simulator work requests and notifications from the past two-year period effectively addressed each issue. The specific simulator tests reviewed are listed in the Attachment.

This annual operating exam administration cycle will be completed in the fourth quarter of calendar year 2009. Pass/fail results will be reported in the next quarterly resident inspector report.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q – 3 Samples)

a. Inspection Scope

The inspectors completed three quarterly maintenance effectiveness inspection samples. The inspectors reviewed performance monitoring and maintenance effectiveness issues for the three samples listed below. The inspectors reviewed PSEG's process for monitoring equipment performance and assessing preventive maintenance effectiveness, and verified that systems and components were monitored in accordance with the maintenance rule program requirements. The inspectors compared documented functional failure determinations and unavailability hours to those being tracked by PSEG to evaluate the effectiveness of PSEG's condition monitoring activities and to determine whether performance goals were being met. The inspectors reviewed applicable work orders, corrective action notifications, and preventive maintenance tasks. Documents reviewed for this inspection are listed in the Attachment.

- Service water chiller condenser recirculation pump discharge check valves SW99
- Unit 2 auxiliary building ventilation (ABV) supply fan 21
- Unit 1 100 foot elevation personnel airlock

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 6 Samples)

a. Inspection Scope

The inspectors completed six maintenance risk assessment and emergent work control inspection samples. The inspectors reviewed the maintenance activities listed below to verify that the appropriate risk assessments were performed as specified by 10 CFR 50.65(a)(4) prior to removing equipment from service for maintenance. The inspectors reviewed the applicable risk evaluations, work schedules and control room logs for these configurations. PSEG's risk management actions were reviewed during shift turnover meetings, control room tours, and plant walk downs. The inspectors also used PSEG's on-line risk monitor (Equipment Out-Of-Service workstation) to gain insights into the risk associated with these plant configurations. The inspectors reviewed notifications documenting problems associated with risk assessments and emergent work evaluations to verify the issues were entered into the corrective action program. Documents reviewed are listed in the Attachment.

- Unit 1 planned unavailability of the 11 component cooling (CC) heat exchanger concurrent with planned unavailability of the 13 containment fan coil unit (CFCU) on July 14.
- Unit 1 emergent unavailability of the 14 station power transformer (SPT) during adverse weather concurrent with planned unavailability of the 11 service water pump (SWP) and planned maintenance on the 13B circulating water condenser water box on August 20.
- Unit 2 unplanned unavailability of the 2A vital instrument bus inverter on August 14.
- Unit 1 and 2 during planned unavailability of Unit 1 control room emergency air conditioning system (CREACS) concurrent with planned unavailability of the station gas turbine generator and 11 service water pump on September 14.
- Unit 2 planned unavailability of the 4 station lighting power (SLP-4) transformer and the station gas turbine generator concurrent with blocked automatic actuation of pressurizer power operated relief valve 2PR2 on September 17.
- Unit 1 planned unavailability of the 1A EDG on September 30.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 – 5 Samples)

a. Inspection Scope

The inspectors completed five operability evaluation inspection samples. The inspectors reviewed the operability determinations for degraded or non-conforming conditions associated with:

- Offsite power supplies given failure of the 14 Station Power Tranformer (STP) Load Tap Changer (LTC);
- Degraded conduit located at the Unit 1 and Unit 2 intake structures;
- Service water system given reduced material strength of the service water strainer (SWS) rotating elements caused by de-alloying of the metal while in service;
- Unit 2 rod control system given degradation of individual rod position indication (IRPI) for rod 2B4-2; and
- Unit 1 emergency core cooling system (ECCS) containment sump level indication.

The inspectors reviewed the technical adequacy of the operability determinations to ensure the conclusions were justified. The inspectors walked down accessible equipment to corroborate the adequacy of PSEG's operability determinations. Additionally, the inspectors reviewed other PSEG identified safety-related equipment deficiencies during this report period and assessed the adequacy of their operability screenings. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18 – 1 Sample)

.1 Temporary Modification

a. Inspection Scope

The inspectors completed one plant modification inspection sample. The inspectors reviewed a temporary modification developed to restore alarm capability to the 11 steam generator feed pump (SGFP). The vibration alarm was actuating frequently in the control room, due to the elevated vibration on the pump outboard bearing. The temporary modification raised the alarm and danger set points. Inspectors verified that the new set points were developed using existing station procedures. The alarm set point was verified to be high enough to eliminate nuisance alarms and low enough to alert the plant operators of a change in the current condition of the pump, providing a warning prior to the vibrations reaching the danger level.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 – 9 Samples)

a. Inspection Scope

The inspectors completed nine post-maintenance testing inspection samples. The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability following the completion of maintenance. The inspectors verified that the effect of testing on the plant was adequately addressed by control room personnel and risk assessment engineering; testing was adequate for the maintenance

performed; acceptance criteria were clear, demonstrated operational readiness and were consistent with design and licensing basis documentation; test instrumentation was calibrated, and the appropriate range and accuracy for the application; tests were performed, as written, with applicable prerequisites satisfied; and equipment was returned to an operational status and ready to perform its safety function. Documents reviewed are listed in the Attachment.

- Replacement of 2C EDG air start solenoid valves, Work order (WO) 30089821
- Replacement of the 21 auxiliary building ventilation (ABV) supply fan belt, WO 30142044
- Repair of 100 foot elevation containment airlock, WO 60084993
- Repair of the 14 Station Power Tranformer (STP) Load Tap Changer (LTC), WO 60085524
- Replacement of the 1A EDG 4kV output breaker (1AD1AX6D), WO 30103946
- Planned maintenance for the 2A1 125 VDC battery charger, WO 50113534
- Planned maintenance for the 11SW42 diesel generator service water flow controller, WO 30151429
- Planned maintenance for the 22 auxiliary feed water (AFW) pump discharge pressure transmitter, WO 30125415
- Planned maintenance for the station blackout diesel control air compressor, WO 30183591

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 – 7 Samples)

a. Inspection Scope

The inspectors completed seven surveillance testing inspection samples. The inspectors observed portions of and/or reviewed results for the surveillance tests listed below to verify, as appropriate, whether the applicable system requirements for operability were adequately incorporated into the procedures and that test acceptance criteria were consistent with procedure requirements, the technical specification requirements, the UFSAR, and ASME Section XI for pump and valve testing. Documents reviewed are listed in the Attachment. The inspectors evaluated the surveillance tests listed below:

- S2.OP-ST.RHR-0001, 21 RHR Pump Inservice Test (IST) on July 2;
- S2.OP-ST.DG-0005, 22 Fuel Oil Transfer System Operability Test on July 10;
- S2.OP-ST.DG-0012, 2A Diesel Generator Endurance Run on July 27;
- S1.OP-LR.CAN-0001, 100 Foot Elevation Containment Airlock Leak Rate Testing on July 23;
- S2.OP-ST.AF-0002, 22 AFW Pump IST on August 2;
- S2.OP-ST.RHR-0002, 22 RHR Pump IST on August 6; and
- S2.IC-CC.RC-0094, PZR Safety Valve Discharge Temperature on August 18.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06 – 1 Sample)

a. Inspection Scope

The inspectors completed one drill evaluation inspection sample. On July 13, the inspectors observed a drill from the control room simulator during an annual licensed operator requalification examination scenario. The inspectors evaluated operator performance relative to developing event classifications and notifications. The inspectors reviewed the Salem Event Classification Guides. The inspectors referenced Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator (PI) Guideline," Revision 5, and verified that PSEG correctly counted the evaluated scenario's contribution to the NRC PI for drill and exercise performance.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program (71122.03 – 10 Samples)

a. Inspection Scope

The inspectors reviewed the most current Annual Environmental Monitoring Report (AEMR) and licensee assessment results to verify that the REMP was implemented as required by Technical Specifications (TS) and the Offsite Dose Calculation Manual (ODCM). The review included changes to the ODCM with respect to environmental monitoring, commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, inter-laboratory comparison program, and analysis of data. The inspectors reviewed the ODCM to identify environmental monitoring stations. The inspectors reviewed licensee self assessments, audits, licensee event reports, and inter-laboratory comparison program results. The inspectors reviewed the Final Safety Analysis Report (FSAR) for information regarding the environmental monitoring program and meteorological monitoring instrumentation. The inspectors reviewed the scope of the PSEG's audit program to verify that it met the requirements of 10 CFR 20.1101(c).

The inspectors walked-down the six air particulate and iodine sampling stations, two broad leaf vegetation stations and 37 direct reading monitoring stations. The inspectors verified that they were located as described in the ODCM and that the equipment material condition was acceptable.

The inspectors observed the collection and preparation of a variety of environmental samples (e.g., vegetation and ground and surface water). The inspectors verified that

environmental sampling was representative of the release pathways as specified in the ODCM and that sampling techniques were in accordance with procedures.

Based on direct observation and review of records, the inspectors verified that the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the FSAR, NRC Safety Guide 23, and licensee procedures. The inspectors reviewed each event documented in the Annual Environmental Monitoring Report that involved a missed sample, inoperable sampler, lost thermo-luminescent dosimeter (TLD), or anomalous measurement for the cause and corrective actions. The inspectors also reviewed PSEG's assessment of any positive sample results (i.e., licensed radioactive material detected above the lower limits of detection (LLDs)) and reviewed the associated radioactive effluent release data that was the likely source of the released material.

The inspectors reviewed any significant changes made by PSEG to the ODCM due to changes to the land census or sampler station modifications since the last inspection. The inspectors also reviewed technical justifications for any changed sampling locations and verified that PSEG performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

The inspectors reviewed the calibration and maintenance records for air samplers and composite water samplers. The inspectors reviewed PSEG's calibration records for the environmental sample radiation measurement instrumentation. The inspectors verified that the appropriate detection sensitivities, as specified in the TS/ODCM, were utilized for counting samples. The inspectors reviewed quality control charts for maintaining radiation measurement instrument status and any actions taken to address degrading detector performance. The inspectors reviewed the results of PSEG's inter-laboratory comparison program to verify the adequacy of environmental sample analyses performed by PSEG. The inspectors also reviewed PSEG's quality control evaluation for the inter-laboratory comparison program and the corrective actions for any deficiencies. The inspectors reviewed quality assurance (QA) audit results of the program to verify that PSEG met the TS/ODCM requirements. The inspectors completed these activities via direct observation at the PSEG Maplewood Testing Laboratory.

The inspectors observed several locations where PSEG monitors potentially contaminated material leaving the radiologically controlled area (RCA) and inspected the methods used for control, survey, and release from these areas. When possible, the inspectors observed the performance of personnel surveying and releasing material for unrestricted use to verify that the work was performed in accordance with plant procedures.

The inspectors verified that the radiation monitoring instrumentation used was appropriate for the radiation types present and was calibrated with appropriate radiation sources. The inspectors reviewed PSEG's criteria for the survey and release of potentially contaminated material. The inspectors verified that there was guidance on how to respond to an alarm that indicated the presence of licensed radioactive material. The inspectors reviewed PSEG's equipment to ensure the radiation detection sensitivity was consistent with the NRC guidance contained in IE Circular 81-07 and IE Information

Notice 85-92 for surface contamination and HPPOS-221 for volumetrically contaminated material. The inspectors also reviewed PSEG's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting. The inspectors verified that PSEG had not established a "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high radiation background area. The inspectors reviewed PSEG's licensee event reports (LER), Special Reports (SR), audits, and self-assessments related to the radiological environmental monitoring program performed since the last inspection. The inspectors verified that identified problems were entered into the corrective action program for resolution.

The inspectors reviewed corrective action notifications that affected environmental sampling, sample analysis, or meteorological monitoring instrumentation. The inspectors also interviewed staff and reviewed corrective action program documents to verify that the following activities were conducted in an effective and timely manner commensurate with their importance to safety and risk:

1. Initial problem identification, characterization, and tracking.
2. Disposition of operability/reportability issues.
3. Evaluation of safety significance/risk and priority for resolution.
4. Identification of repetitive problems.
5. Identification of contributing causes.
6. Identification and implementation of effective corrective actions.
7. Resolution of non-cited violations (NCVs) tracked in corrective action system(s).
8. Implementation/consideration of risk significant operational experience feedback.

In cases where the inspectors identified repetitive or significant deficiencies in corrective action program implementation, the inspectors verified that PSEG's self-assessment activities were also identifying and addressing deficiencies in this area.

The inspectors evaluated PSEG's performance in these areas against the requirements contained in 10 CFR 50.36, 10 CFR 50, Appendix I, and Plant Technical Specification 6.9.1.7.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151 - 6 Samples)

a. Inspection Scope

The inspectors completed six performance indicator verification inspection samples. The inspectors reviewed PSEG submittals for the Unit 1 and Unit 2 Mitigating Systems cornerstone performance indicators discussed below. Data reviewed was for the third and fourth quarters of 2008, as well as the first and second quarters of 2009. To verify the accuracy of the PI data reported during this period the data was compared to the PI

definition and guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5.

Cornerstone: Mitigating Systems

- Unit 1 and Unit 2 Heat Removal System MSPI
- Unit 1 and Unit 2 Residual Heat Removal System MSPI
- Unit 1 and Unit 2 Cooling Water Systems MSPI

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152 – 1 Sample)

.1 Review of Items Entered into the Corrective Action Program:

a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of all items entered into PSEG's corrective action program. This was accomplished by reviewing the description of each new notification and attending daily management review committee meetings. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified.

.2 Annual Sample: Review of Operator Workaround Program

a. Inspection Scope

The inspectors conducted a cumulative review of operator workarounds for Unit 1 and 2 and assessed the effectiveness of PSEG's operator workaround program. The inspectors reviewed PSEG's operator burden list, control room distraction report, and an operator burden self-assessment. The inspectors focused on the potential impact on mitigating systems and the potential to affect operator ability to implement abnormal and emergency operating procedures. The review included interviews with licensed operators and walk downs of main control room panels.

b. Findings and Observations

No findings of significance were identified.

PSEG identified eleven operator challenges at Unit 1 and 2, but none of the challenges were classified as operator workarounds. The inspectors did not identify additional operator challenges or workarounds. The inspectors reviewed OP-AA-102-103, "Operator Work-around Program", and OP-AA-102-103-1001, "Operator Burdens Program", for PSEG program requirements and found that PSEG adequately

implemented these procedures. The most recent quarterly operator burden assessment was reviewed for each unit. The inspectors determined that the cumulative impact of the identified operator challenges was within manageable limits. Documents reviewed are listed in the Attachment.

4OA5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with PSEG security procedures and regulatory requirements related to nuclear plant security. These observations took place during both normal and off-normal plant working hours. These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

The inspectors presented the inspection results to Mr. R. Braun and other members of PSEG management at the conclusion of the inspection on October 5, 2009. The inspectors asked PSEG whether any materials examined during the inspection were proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

R. Braun	Salem Site Vice President
L. Rajkowski	Engineering Director
M. Gwirtz	Operations Director
R. DeSanctis	Maintenance Director
E. Eilola	Plant Manager
B. Gary	Radiation Protection Manager
D. Boyle	Nuclear Specialist III
C. Pupek	Operations Engineer
W. Kittle	Senior Engineer Nuclear
M. Rahmani	Senior Engineer Nuclear
J. Higgins	Principal Nuclear Engineer
L. Oberembt	System Manager
S. Bowers	Staff Engineer Nuclear
S. Crampton	Staff Engineer Nuclear
F. Hummel	Staff Engineer Nuclear
S. Davies	Principal Nuclear Engineer

LIST OF DOCUMENTS REVIEWED

In addition to the documents identified in the body of this report, the inspectors reviewed the following documents and records:

Section 1R01: Adverse Weather Protection

Procedures
SC.OP-AB.ZZ-0001, Adverse Environmental Conditions, Rev. 12

Notifications
20427014
20266371
20366273
20368420

Section 1R04: Equipment Alignment

Procedures
S1.OP-SO.SW-0005, Service Water System Operation, Rev. 38
S1.OP-SO.DG-0005, Preparation for Removing a Diesel Generator from Service, Rev. 7

Drawings
205242
205241

Notifications
20429353 20429351

Other Documents
WCD 4254371

Section 1R05: Fire Protection

Procedures
FRS-II-421, 4160 V Switchgear Rooms & Battery Rooms, Elevation: 64'- 0", Rev. 6
FRS-II-445, 4160 V Switchgear Diesel Generator Area Elevations 100' and 122', Rev. 11

Notifications
20347124
20366371
20395281
20398172
20398912
20400672
20417401
20417799
20421431
20422605

Other Documents
NC.DE-PS.ZZ-0001-A2-FHA, Salem Fire Protection Report Fire Hazard Analysis, Rev. 6

Section 1R06: Flood Protection Measures

Procedures
SC.FP-SV.FBR-0026, Flood and Fire Barrier Penetration Seal Inspection, Rev. 3

Drawings

205404	219594	229350	264906	264957	264972
205447	219597	264900	264908	264969	606103
210451	228547	264902	264918	264971	
218625	228548	264906	264954	264972	

Notifications
20406085
20406162
20406265
20420237
20422037

Orders
60034596

60080977
60081894
70078512
80091529
80096186

Other Documents
SureVoid® Corrugated Paper Void Forms, SlabVoid Product Description
A-5-DCS-CDC-1963, Underground/Aboveground Utilities Evaluation, Rev. 1C
LR-N07-0095, PSEG Letter to NRC dated May 7, 2007, re: Response to NRC Generic Letter 2007-01
A-0-ZZ-EDS-0225-0, Class 1E Medium Voltage Shielded Power Cable for use at Salem & Hope Creek Generating Stations, Rev. 0

Section 1R11: Licensed Operator Requalification Program

Procedures
2-EOP-FRCE-1, Response to Excessive Containment Pressure, Rev. 22
2-EOP-LOCA-1, Loss of Reactor Coolant, Rev. 28
2-EOP-LOCA-3, Transfer to Cold Leg Recirculation, Rev. 28
2-EOP-LOCA-6, LOCA Outside Containment, Rev. 21
2-EOP-LOPA-1, Loss of All AC Power, Rev. 26
2-EOP-LOSC-1, Loss of Secondary Coolant, Rev. 23
2-EOP-SGTR-1, Steam Generator Tube Rupture, Rev. 27
2-EOP-TRIP-1, Reactor Trip or Safety Injection, Rev. 27
NC.EP-EP-0102, Emergency Coordinator Response, Rev. 14
S2.OP-AB.LOAD-0001, Rapid Load Reduction, Rev. 17
S2.OP-AB.NIS-0001, Nuclear Instrumentation System Malfunction, Rev. 7
S2.OP-AB.RC-0001, Reactor Coolant System Leak, Rev. 10
S2.OP-AB.ROD-0003, Continuous Rod Motion, Rev. 20
S2.OP-AB.STM-0001, Excessive Steam Flow, Rev. 9
S2.OP-SO.RPS-0001, Nuclear Instrumentation Channel Trip/Restoration, Rev. 4
S2.OP-SO.TRB-0001, Turbine-Generator Startup Operations, Rev. 30
TQ-AA-106-0304, Licensed Operator Requal Training Exam Development Job Aid, Rev. 10
JA-Analysis-210-1303, Training Needs/Cost Analysis Worksheet Job Aid, Rev 1
TQ-AA-210-4101, Remediation, Rev 5
OP-AA-105-102, Reactivation of License Log, Attachment 2, Rev 8
TQ-AA-106, Licensed Operator Requal Training Program, Rev 13
OP-AA-105-102, NRC Active License Maintenance, Rev 9
HR-AA-07-101, Licensed Nuclear Operator Medical Examination, Rev 4
OP-AA-105-101, Administrative Process for NRC License and Medical Requirements, Rev 11
TQ-AA-301, Simulator Configuration Management, Rev 8

Scenarios:
ESG-903, Steam Leak Faulted/Ruptured SG
ESG-904, LOCA
ESG-905, Ruptured / Faulted SG coincident with ATWT
ESG-906, Inadvertent SI / PZR PORV leak
ESG-914, Manual Reactor Trip / SBLOCA

Job Performance Measures:
N1150190501, Perform actions for a SGTR
1130070501, Control Charging flow after Control Room Evacuation
1140290401, Respond to leak in RCP Thermal Barrier
N0170030501, Calculate Actual RCS Subcooling During Performance of LOCA-1

Simulator Documents
SWR S-2008-012, OHA B08 and B16, SW Strainer Trouble Clear When Should Not Be
SWR S-2008-016, Implement CFCU DCP #88089131
SWR S-2008-017, Implement Changed Stroke Times for 2SJ44 and 2RH4 DCP #80090480
SWR S-2008-026, Change MS10 Position Limit Switch Settings
SWR S-2008-055, Readjust MS10 Position Limit Switch Settings
2R16 Refueling Outage DCP Test Procedure
Malfunction Test for PR0016, Pressurizer Pressure Ch I/III (PT455/457) Fails H/L, dated 2/1/08
Malfunction Test for RC0003D, 24 RC Pump Electrical Trip, dated 3/6/08
TQ-AA-302-0105, Completed Simulator Testing Report for 2007
TQ-AA-302-0105, Completed Simulator Testing Report for 2008
Transient Test OPA-02, Simultaneous Trip of All FW Pumps, dated 12/18/08
Transient Test OPA-09, Maximum Size Unisolable Main Steam Line Rupture, dated 12/18/08
Transient Test OPA-11, Load Rejection, dated 12/18/08
100% Simulator Steady State Heat Balance Test for 2009
Event Comparison - Polisher Sightglass Blowout/Loss of Condensate Pressure on 5/24/07

Notifications
20425070
20425193
20426760

Other Documents
ESG-0903, Simulator Examination Scenario, Steam Leak, Faulted/Ruptured SG, Rev. 02
ESG-0904, Simulator Examination Scenario, LOCA, Rev. 00
Order 70085490, 21-24 SG Feed Flow / Steam Flow Mismatch
Order 70079460, EAL Misclassification During OBE
Order 70087054, ECG Misclassification During OBE
Order 70094729, 2CV18 Did Not Get Closed Limit
Order 70070461, Review MS10 Position Limit Switch Settings
Notification 20322781, MS10 Valve Position Indication on Unit 1 Reactor Trip
Design Change 80099131, CFCU Constant Flow
Design Change 80090480, Change Stroke Times on SJ44 & RH4 Valves
ANSI/ANS-3.4-1983, Medical Certification and Monitoring of Personnel Requiring Operator Licensees for Nuclear Power Plants
ANSI/ANS-3.5-1993, Nuclear Power Plant Simulators for Use in Operator Training and Examination
The Lifting of 2CV6: A Case Study on Human Performance
Steam Flow Mismatch and 3.0.3 Shutdown Case Study
Just in Time Training Pressurizer Drain 1R19
Lesson Plan No. NOS010P006-6: IOP-6, Hot Standby to Cold Shutdown

Section 1R12: Maintenance Effectiveness

Procedures

ER-AA-310, Implementation of the Maintenance Rule, Rev. 6
ER-AA-310-1004, Maintenance Rule – Performance Monitoring, Rev. 7
ER-SA-310-1009, System Function Level Maintenance Rule Scoping vs. Risk Reference, Rev 0
SC-MD-EU.CAN-0003, Installation and Removal of Personnel Airlock Inner Door Strongbacks, Rev. 0
ER-AA-380-1004, Qualification of Leak Rate Monitor Technicians Desk Top Guide, Rev. 0
SC.OP-LR.ZZ-0001, Leak Rate Troubleshooting Guidelines, Rev. 1
S1.OP-LR.CAN-0001, 100 Ft. Elevation Containment Airlock Leak Rate Testing, Rev. 1
SH.RA-DG.ZZ-0113, Qualification of Leak Rate Monitor Technicians Desk Top Guide, Rev. 2
S1.OP-ST.SW-0009, Service Water Valves (Penetration Area) Modes 1-6, Rev. 8
SH.MD-GP.ZZ-0131, Inspection and Replacement of Drive Belts, Rev. 1
SC.MD-CM.ABV-0001, Auxiliary Building Supply and Exhaust Fan Repairs, Rev. 8

Drawings
142141
201193
205242
300070
301084

Notifications

20142155	20247001	20288167	20408926	20424538	20430538
20150677	20255956	20288167	20420014	20425169	20430541
20172622	20270287	20320974	20420014	20425206	20431899
20237050	20280950	20320974	20420609	20425365	
20239317	20281044	20333127	20421022	20425738	
20239425	20281714	20406266	20422441	20425738	
20240185	20283023	20406267	20423648	20426667	

Orders

30135256	30178338	60054672	70029891	70056501	70099122
30135665	30178338	60064960	70031141	70056691	70100778
30142044	50104330	60084993	70047781	70068555	
30170802	50104330	70029347	70047966	70095639	

Other Documents
S-C-SW-MDC-1350, Service Water System MODE OPS Analysis, Rev. 8
S-C-CH-MDC-1869, Aux. Bldg. chilled Water System Integrated Requirements/Maximum CW Temperature, Rev. 0
S-C-CH-MDC-2282, Chiller Service Water Flow Requirements, Rev. 0
VTD 322772, Atwood & Morrill Co., Instruction Manual for Dual Plate Check Valve, Rev. 0
Salem Inservice Testing Program Basis Document for 11SW99

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures
S1.OP-DL.ZZ-0003, Control Room Logs – Mode 1-4, Rev. 60
S1.OP-AR.ZZ-0010, Overhead Annunciators Window K, Rev. 33
S1.OP-SO.4KV-0001, 1A 4KV Vital Bus Operation, Rev. 26
S1.OP-AB.4KV-0001, Loss of 1A 4KV Vital Bus, Rev. 9
1-EOP-TRIP-1, Reactor Trip or Safety Injection, Rev. 26

1-EOP-TRIP-2, Reactor Trip Response, Rev. 24
1-EOP-LOPA-1, Loss of all AC Power, Rev. 24

Drawings
203000
208625
26511

Notifications

20409596	20428779	20428808	20429025	20432694
20418104	20428806	20428843	20429464	20427774
20428403	20428807	20429023	20431834	20427870

Other Documents
SGS Unit 1 PRA Risk Evaluation Form for work week 929 (12 to 18 July 2009), Rev. 0
SGS Unit 1 PRA Risk Evaluation Form for work week 940 (27 September to 3 October 2009), Rev. 0
SGS Unit 1 PRA Risk Evaluation Form for work week 938 (13 to 19 September 2009), Rev. 0
SGS Unit 2 PRA Risk Evaluation Form for work week 938 (13 to 19 September July 2009), Rev. 0

Section 1R15: Operability Evaluations

Procedures
S1.OP-DL.ZZ-0003, Control Room Logs – Mode 1-4, Rev. 60
S1.OP-AR.ZZ-0010, Overhead Annunciators Window K, Rev. 33
S1.OP-SO.4KV-0001, 1A 4KV Vital Bus Operation, Rev. 26
S1.OP-AB.4KV-0001, Loss of 1A 4KV Vital Bus, Rev. 9
S2.OP-ST.RCS-0001, Reactivity Control System Rod Control Assemblies, Rev. 19
S1.OP-AB.ROD-0001, Immovable/Misaligned Control Rods, Rev. 6
S1.OP-AB.ROD-0004, Rod Position Indication Failure, Rev. 6
SC.RE-RA.RCS-0017, Rod Cluster Control Assembly Position Verification, Rev. 4
SC.RE-SO.NIS-0001, Beacon Operation & Calculation Verification, Rev. 7
SC.RE-RA.RCS-0017, Rod Cluster Control Assembly Position Verification, Rev. 4
SC.OP-AB.ZZ-0001, Adverse Environmental Conditions, Rev.12

Drawings
203000
208625
265110

Notifications

20378967	20418104	20428806	20429023	20429564	20430789
20385653	20424746	20428807	20429025	20431832	
20394681	20428403	20428808	20429464	20366273	
20409596	20428779	20428843	20429464	20368420	

Orders
50125275
70094668

70090278
70100779
70100778
70101890

Other Documents
S-C-4KV-EEE-1795, Establishment of New Lower Voltage Limit for Vital Buses at Salem Stations, Rev. 1
Lehigh Testing Laboratories, Inc., Strainer Drum Evaluation (Lehigh Project Number 2615-09); dated March 25, 2009
Design Engineering Analysis Corp., FEA Evaluation of a 20" Model 'A' Strainer Drum with Compromised Material Strengths for the PSEG Nuclear Power Facility in Hancocks Bridge, NJ (DEAC-TR-138), dated July 2009

Section 1R18: Plant Modifications

Procedures
CC-AA-112, Temporary Configuration Changes, Rev. 12

Other Documents
TCCP: 1 ST 09-007, 11 SGFP Vibration Alarm Set Point

Section 1R19: Post-Maintenance Testing

Procedures
NC.NA-AP.ZZ-0050, Station Post Maintenance Testing, Rev. 7
MA-AA-716-012, Post Maintenance Testing, Rev. 13
SH.MD-GP.ZZ-0240, System Pressure Test at Normal Operating Pressure and Temperature, Rev. 9
S2.OP-ST.DG-0003, 2C Diesel Generator Surveillance Test, Rev. 47
SH.MD-GP.ZZ-0131, Inspection and Replacement of Drive Belts, Rev. 1
SC.MD-CM.ABV-0001, Auxiliary Building Supply and Exhaust Fan Repairs, Rev. 8
SC-MD-EU.CAN-0003, Installation and Removal of Personnel Airlock Inner Door Strongbacks, Rev. 0
ER-AA-380-1004, Qualification of Leak Rate Monitor Technicians Desk Top Guide, Rev. 0
SC.OP-LR.ZZ-0001, Leak Rate Troubleshooting Guidelines, Rev. 1
S1.OP-LR.CAN-0001, 100 Ft. Elevation Containment Airlock Leak Rate Testing, Rev. 1
SH.RA-DG.ZZ-0113, Qualification of Leak Rate Monitor Technicians Desk Top Guide, Rev. 2
S1.OP-SO.4KV-0001, 1A 4KV Vital Bus Operation, Rev. 26
S1.OP-AB.4KV-0001, Loss of 1A 4KV Vital Bus, Rev. 9
SC.MD-ST.125-0007, Preventive Maintenance and 18 Month Surveillance of 125 Volt Battery Chargers using BCT-2000 with Alber Windows Software, Rev. 3
SC.MD-IS.4KV-0001, 4KV and 13KV Magne-Blast Circuit Breakers Inspection and Test, Rev. 24
SC.MD-TR.4KV-0008, 4KV and 13KV Breaker Timing, Rev. 4
S1.OP-ST.DG-0001, 1A Diesel Generator Surveillance Test, Rev. 42
S1.OP-ST.DG-0006, 1A Diesel Generator Auxiliaries Air Start Valve Test, Rev. 9
S2.OP-SO.AF-0001, Auxiliary Feedwater System Operation, Rev. 32
S2.OP-ST.AF-0004, Inservice Testing – Auxiliary Feedwater Valves, Rev. 16

SC.OP-PT.CA-0001, SBO Diesel Control Air Compressor Test, Rev. 13

Drawings

203000
205241
205242
208625
223690
244978
265110
610580
610595

Notifications

20237050	20409596	20425738	20428806	20429023	20433935
20255956	20418104	20426667	20428807	20429025	
20288167	20424538	20428403	20428808	20429464	
20320974	20425738	20428779	20428843	20433935	

Orders

30089879	30139854	30163002	50113534	60084993
30103946	30142044	30163021	50124439	70100778
30103946	30151429	30163086	50125923	30125415
30124974	30151429	50104330	60064960	

Other Documents

Work Control Document 4254350, 2C ED ('B' Starting Air Train) Tagging Work List

Section 1R22: Surveillance Testing

Procedures

S2.OP-ST.RC-0008(Q), Reactor Coolant System Leak Rate Calculation on July 1-4, 2009
S2.OP-SO.RC-0004 (Q), Identifying and Measuring Leakage, Rev. 30
S2.OP-ST.RC-0008(Q), Reactor Coolant Water Inventory Balance, Rev. 30
S2.OP-ST.DG-0001, 2A Diesel Generator Surveillance Test, Rev. 45
S2.OP-ST.DG-0001, 2A Diesel Generator Surveillance Test Acceptance Criteria, Rev. 5
S2.OP-ST.DG-0012, 2A Diesel Generator Endurance Run, Rev. 25
S2.OP-ST.DG-0019, 2A Diesel Generator Hot Restart Test, Rev. 12
S2.OP-ST.RHR-0002, Inservice Testing – 22 Residual Heat Removal Pump, Rev. 27
S2.OP-ST.AF-0002, Inservice Testing – 22 Auxiliary Feedwater Pump, Rev. 17
S2.OP-ST.RHR-0001, Inservice Testing – 21 Residual Heat Removal Pump, Rev. 22
S2.RA-ST.RHR-0001, Inservice Testing, 21 Residual Heat Removal Pump, Rev.7
S2.OP-ST.DG-0005, 22 Fuel Oil Transfer System Operability Test, Rev. 23
S2.IC-CC.RC-0094, Pressurizer Safety Valve Discharge Temperature, Rev. 4
ER-AA-380-1004, Qualification of Leak Rate Monitor Technicians Desk Top Guide, Rev. 0
SC.OP-LR.ZZ-0001, Leak Rate Troubleshooting Guidelines, Rev. 1
S1.OP-LR.CAN-0001, 100 Ft. Elevation Containment Airlock Leak Rate Testing, Rev. 1
SH.RA-DG.ZZ-0113, Qualification of Leak Rate Monitor Technicians Desk Top Guide, Rev. 2

Notifications

20396433	20414700	20420058	20426066	20426333	20426771
20409112	20414914	20422103	20426149	20426769	20422355
20414586	20415431	20422411	20426188	20426770	20428182

Orders

50104330	50110575	50124413	50172707
50110567	50120599	70100407	

Other Documents

WCAP-16465-NP, Pressurized Water Reactor Owners Group Standard RCS Leakage Action Levels and Response Guidelines for Pressurized Water Reactors, Rev. 0

Section 1EP6: Drill Evaluation

Procedures

NC.EP-EP-0102, Emergency Coordinator Response, Rev. 14

Other Documents

ESG-0903, Simulator Examination Scenario, Steam Leak, Faulted/Ruptured SG, Rev. 02
Salem Event Classification Guides, Rev. 84
SGS EAL/RAL Technical Basis, Salem Generating Station Emergency Action Level/Reporting Action Level Technical Basis Document, Revision 33

Section 2PS3: Radiological Environmental Monitoring Program

Procedures

2008 Annual Radiological Environmental Operating Report, January 1 to December 31, 2008
Functional Area Self-Assessment, "Radiological Environmental Monitoring Program," SAP Order No. 70089372
Environmental Supply Company, Inc., Dry Gas Meter Calibration Reports
Maplewood Testing Services Mechanical Division Environmental/Radiological Group Quality Assurance/Control Plan
Maplewood Testing Services Mechanical Division Environmental Group Work Instructions:
TLDSV-1.2.1, Installation of Thermoluminescent Dosimeters
ENCAL-3.5.3, Multi Point Energy/Shape Calibration
GVISSAMP-3.5.1, Gammavision Spectrum Acquisition and Analysis
3PT-G-3.5.4A, System QC Using a 500ML Marinelli Three Nuclide Check Source
Meteorological Tower Quarterly Calibrations, July 2009 & August 2009
Salem/Hope Creek Met Data Recovery, July 2008 – June 2009
Salem and hope Creek 2008 Land Use Census
Bicron NE SAM-9 Calibration records, Serial No. 103, 105, 118, 122
NC.CH-RC.ZZ-2525(Q), Rev 4, Gamma Spectroscopy Analysis Using CAL
RP-AA-503, Rev 3, Unconditional Release Survey Method
Daily Gamma Control Charts – Detectors 3003, 286a, 41TP, 42TP,
43TP & 44TP (January July 2009)
Packard Liquid Scintillation Counter Model 2500TR, 2009 Control Charts
Packard Liquid Scintillation Counter Model 3100TR, 2009 Control Charts
Tennelec Series 5XLB Gas Proportional Counter 2009 Control Charts
Offsite Dose Calculation Manual, Rev 23
2009 REMP Analytical Results, Aquatic Environment (Surface Water, Fish/Crab, Sediment)

2009 REMP Analytical Results, Atmospheric Environment (Air Iodine)

Notifications
10248521
10256322
10235970
10212268
10227944
10225999
10216855

Section 4OA1: Performance Indicator Verification

Procedures
ER-AA-600-1047, Mitigating Systems Performance Index Basis Document, Rev. 2

Notifications
20384080
20421787
20394273
20402095
20374731
20389212
20401148
20401620

Other Documents
Salem 1 Narrative Log, June 1, 2008 through June 1, 2009
Salem 2 Narrative Log, June 1, 2008 through June 1, 2009
NRC Web 2Q 2009 Performance Indicators, Salem 1
NRC Web 2Q 2009 Performance Indicators, Salem 2

Section 4OA2: Identification and Resolution of Problems

Procedures
OP-AA-102-103-1001, Operator Burdens Program, Rev. 0
OP-AA-102-103, Operator Work-Around Program, Rev. 2

Notifications
20392282
20372484
20378133
20422435
20410789
20393256
20296978
20422201

Orders
70085807
30179439

30179440

Other Documents
SER OTDM: S-08-009, Unit 2 Pressurizer Power Operated Relief Valves (PORV's)
Control Room Distractions Log

LIST OF ACRONYMS

ABV	Auxiliary Building Ventilation
ADAMS	Agency-wide Documents Access and Management System
AFW	Auxiliary Feedwater Pump
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CC	Component Cooling
CCW	Component Cooling Water
CFCU	Containment Fan Coil Unit
CFR	Code of Federal Regulations
CREACS	Control Room Emergency Air Conditioning System
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
FHB	Fuel Handling Building
FSAR	Final Safety Analysis Report
IRPI	Individual Rod Position Indication
IST	Inservice Test
JPM	Job Performance Measures
LER	Licensee Event Report
LLD	Lower Limit Detection
LTC	Load Tap Changer
MSPI	Mitigating System Performance Index
NCV	Non-cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PI	Performance Indicator
PSEG	Public Service Enterprise Group Nuclear LLC
PZR	Pressurizer
QA	Quality Assurance
RCA	Radiological Controlled Area
REMP	Radiological Environmental Monitoring Program
RHR	Residual Heat Removal
SDP	Significance Determination Process
SGFP	Steam Generator Feed Pump
SLP	Station Lighting Power
SPT	Station Power Transformer
SR	Special Report
SW	Service Water
SWIS	Service Water Intake Structure
SWP	Service Water Pump

SWS	Service Water Strainer
TLD	Thermo-luminescent Dosimeter
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
WO	Work Order