May 12, 2003

Mr. Roy Anderson
Chief Nuclear Officer and President
PSEG Nuclear LLC - N09
P. O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION - NRC INSPECTION REPORT 50-272/03-004, 50-311/03-004

Dear Mr. Anderson:

On March 28, 2003, the NRC completed a team inspection at the Salem Unit 1 and Unit 2 reactor facilities. The enclosed report documents the inspection findings which were discussed on March 28, 2003 with Mr. O'Connor, Mr. Carlin, Mr. Garchow and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observation of activities, and interviews with personnel.

On the basis of the samples selected for review, the team concluded that in general, problems were properly identified, evaluated and corrected. However, the findings identified by this team supported the conclusion in the Annual Assessment Letter (NRC Inspection Report 50-272, 311/2003-01) of the existence of a substantive cross cutting issue in the problem identification and resolution area. The team identified one Green finding, with two examples, concerning the failure to promptly correct conditions adverse to quality. Specifically, PSEG failed to implement corrective actions for deficiencies associated with the protection of wires inside of control room cabinets from an over-current condition and a component cooling water system pipe support. These findings were determined to be violations of NRC requirements. However, because of their very low safety significance and because they were entered into your corrective action program, the NRC is treating these findings as non-cited violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny these non-cited violations, you should provide a response with the basis for your denial within 30 days of the date of this inspection report, to the U. S. Nuclear Regulator Commission, ATTN. Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, U. S. Nuclear Regulator Commission, Washington DC 20555-0001; and the NRC Resident Inspector at the Salem Facility.

Several examples of minor violations were identified involving conditions adverse to quality that were not entered into the corrective action program. Additionally, examples were identified of narrowly focused problem evaluations and corrective actions that were either ineffective or not performed.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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/

Raymond K. Lorson, Chief
Performance Evaluation Branch
Division of Reactor Safety

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

Enclosure: Inspection Report 50-272/03-004, 50-311/03-004
w/Attachment: Supplemental Information

cc w/encl:
M. Friedlander, Director - Business Support
J. Carlin, Vice President - Engineering
D. Garchow, Vice President - Projects and Licensing
G. Salamon, Manager - Licensing
T. O'Connor, Vice President - Operations
R. Kankus, Joint Owner Affairs
J. J. Keenan, Esquire
Consumer Advocate, Office of Consumer Advocate
F. Pompper, Chief of Police and Emergency Management Coordinator
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OFFICE	RII/DRP		RI/DRP		RI/DRS		RI/DRS			
NAME	RMusser (SMP for) via phone		GMeyer		ECobey (per discussion w/RKL)		RLorson			
DATE	05/07/03		05/07/03		05/12/03		05/12/03			

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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:	50-272/03-004, 50-311/03-004
Licensee:	PSEG Nuclear LLC (PSEG)
Facility:	Salem Nuclear Generating Station, Unit 1 and 2
Location:	P.O. Box 236 Hancocks Bridge, NJ 08038
Dates:	March 10-14 and March 24-28, 2003
Inspectors:	Randall A. Musser, Senior Resident Inspector (Team Leader) Christopher Cahill, Senior Reactor Inspector Thomas Hipschman, Reactor Inspector George Morris, Reactor Inspector
Approved by:	Raymond K. Lorson, Chief Performance Evaluation Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000272/2003-004, IR 05000311/2003-004; 3/10 - 3/14 and 3/24 - 3/28/03; Salem Units 1 and 2; biennial baseline inspection of the identification and resolution of problems; problem identification and resolution.

This inspection was conducted by three regional inspectors and a senior resident inspector from another site. The inspection identified one Green finding which was a non-cited violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process (SDP)." Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Identification and Resolution of Problems

The team determined that PSEG was generally effective at identifying discrepant conditions and entering them into the corrective action system. However, the findings identified by this team supported the conclusion in the Annual Assessment Letter (NRC Inspection Report 50-272, 311/2003-01) of the existence of a substantive cross cutting issue in the area of problem identification and resolution. The team identified four examples where conditions adverse to quality were not entered into the corrective action system. The team determined that PSEG was generally effective at classifying and performing operability evaluations for discrepant conditions, however, some examples were noted where problem evaluations did not contain sufficient detail to support the conclusions. The team identified a finding with two examples where PSEG failed to correct conditions adverse to quality. The team noted that PSEG performed a root cause evaluation to identify areas to improve the corrective action program. The team was not able to assess the effectiveness of this effort since the corrective actions had not been completed. On the basis of interviews conducted during the inspection, workers at the site felt free to input safety findings into the corrective action program.

A. NRC Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The team identified a non-cited violation involving two examples where PSEG failed to correct conditions adverse to quality as required by 10 CFR 50, Appendix B Criterion XVI, Corrective Actions. Specifically, PSEG failed to evaluate and correct an adverse condition involving the protection of wires located inside of control room panels from an over-current condition, and also failed to correct an adverse condition involving a degraded component cooling water system pipe support. These findings were evaluated using the Phase 1 worksheet of the significance determination process and found to be of very low significance (Green) since they did not result in the actual loss of a mitigating system (Section 4OA2c).

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The team reviewed PSEG's corrective action program and noted that problems were formally identified through the initiation of notifications (NOTFs). Team members attended the daily review and management meetings, where NOTFs were reviewed for screening and assignment, and also attended corrective action review board (CARB) meetings to understand the threshold for identifying problems and to assess management involvement with the corrective action process.

The team reviewed selected NOTFs to determine whether PSEG was appropriately identifying, characterizing, and entering problems into the corrective action process. The team reviewed NOTFs initiated subsequent to the last NRC problem identification inspection that was completed in March 2001. The team selected NOTFs to cover the seven cornerstones of safety identified in the NRC Reactor Oversight Process (ROP). In addition, the team considered risk insights from the individual plant examination (IPE) report and the probabilistic risk assessment to focus the NOTF sample selection and system walkdowns on risk significant components. Attachment 1 lists the NOTFs selected for review.

The team also interviewed selected plant staff to determine whether other processes were used to address problems. The team conducted walkdowns of control room panels and selected plant equipment to independently assess whether problems were being adequately identified and addressed.

The team selected items from PSEG's maintenance, operations, engineering, and oversight processes to verify that PSEG appropriately considered problems identified in these processes for entry into the corrective action program. Specifically, the team reviewed a sample of control room deficiency and operator work-around lists, maintenance orders, operability determinations, engineering system health reports, quality assessment reports, and departmental self-assessments. The team reviewed issues identified in these documents to ensure that underlying problems associated with each issue were appropriately evaluated and resolved.

(2) Findings and Observations

The team determined that PSEG was generally effective at identifying discrepant conditions and initiating NOTFs where appropriate. Notwithstanding, the team identified four examples where PSEG failed to identify conditions adverse to quality and enter them into the corrective action program. These examples involved: the failure to identify that the 2B battery rack end rail had been improperly installed (notification 20135334); the failure to identify that the alarm response procedure had not been correctly implemented for an elevated service water pressure condition (notifications

20135358 and 20135360); the failure to identify that an improper tank calibration curve was included in a chemistry procedure, and the failure to formally identify the use of an improper analytical laboratory standard (notification 20135531). These problem identification deficiencies were not considered findings since they did not affect the operability of the associated mitigating systems.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed the NOTFs listed in Attachment 1 to determine whether PSEG adequately evaluated and prioritized problems. The review included the appropriateness of the assigned significance, the timeliness of resolutions, and the scope and depth of the root cause analyses. The NOTFs reviewed encompassed the full range of PSEG evaluations, including root and apparent cause evaluations. The team selected the NOTFs to cover the seven cornerstones of safety identified in the NRC revised oversight program (ROP). The team also considered risk insights from PSEG's probabilistic risk assessment to help focus the NOTF sample. Additionally, the team attended the work integration and management meetings to observe the review process and to understand the basis for assigned significance levels (i.e., Category I, II, or III).

The team also selected a sample of NOTFs associated with previous NRC NCV's to determine whether PSEG evaluated and resolved problems associated with compliance to applicable regulatory requirements. The team reviewed PSEG's evaluation of industry operating experience (OE) information for applicability to their facility. The team also reviewed PSEG's assessment of equipment operability, reportability requirements, and the potential extent of the problem.

The team reviewed PSEG's response to two items identified by the team where PSEG failed to document the basis for their operability determinations for identified problems. The first example was a recurring problem with 4 kV undervoltage relays associated with the service water (SW) accumulator control circuits. The second example was a recurring problem with ground water leaking through the 4 kV switchgear room wall and wetting the control rod drive mechanism (CRDM) cooling fan backup circuit breaker panels and panel supports.

The team reviewed the organizational support and ownership of the corrective action program, in light of PSEG's recognition (as discussed during a level 1 root cause evaluation (70027584) presentation to the correction action review board (CARB)) of weak accountability for implementation of the corrective action program.

(2) Findings and Observations

The team determined that PSEG was generally effective at classifying and performing operability evaluations and reportability determinations for discrepant conditions. However, the team noted some examples where problem evaluations did not contain sufficient detail to support the conclusions. During this assessment period (January 2001 to March 2003) PSEG implemented several new corrective action program implementing procedures which may have contributed to the corrective action program accountability issues identified during a PSEG self-assessment. The team also noted that administrative procedure NC.NA-AP.ZZ-0002(Q), "Organization," assigned responsibility for the corrective action program to multiple organizations which may have also contributed to the accountability issues identified by PSEG. PSEG completed a root cause evaluation of the corrective action program on March 18, 2003. The team was not able to assess the effectiveness of this review since the corrective actions for the self-identified issues had not been completed.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed PSEG's corrective actions associated with selected NOTFs from Attachment 1 to determine whether the actions addressed the identified causes of the problems. The team also reviewed PSEG's timeliness in implementing corrective actions and their effectiveness in preventing recurrence of significant conditions adverse to quality. Furthermore, the team assessed the backlog of corrective actions to determine, if any, individually or collectively, represented an increased risk due to the delay in implementation. The team reviewed the root cause evaluation for the "level one" condition identified by PSEG associated with the effectiveness of the corrective action program.

(2) Findings and Observations

The team identified four examples where PSEG failed to develop appropriate corrective actions for conditions adverse to quality. The first example was associated with the failure to adequately correct the root cause for operational problems that led to the multiple failures of the 12 residual heat removal (RHR) pump breaker to operate during post-maintenance testing (notification 20135327). This deficient corrective action was not considered a finding since the problem was identified during post-maintenance testing and considered unlikely to impact the RHR system following completion of testing. The second example involved the failure to ensure that leakage into an electrical switchgear room, which corroded the supports and external panel for the control rod drive mechanism cooling fan backup circuit breaker panels, would not adversely impact operation of the breakers to protect the associated containment electrical penetrations (notification 20136848. This problem was not considered a finding since the panel internals were inspected and found to be in an acceptable condition.

The two remaining observations were considered findings since they had the potential to affect the operation of mitigating systems. These findings included the failure to

implement adequate corrective actions for damaged wires in a control circuit cabinet and for a broken component cooling water system spring can hangar.

.1 Failure to Properly Evaluate a Failed Wire Inside a Control Room Cabinet

Introduction. A Green NCV was identified for the failure to evaluate and correct a condition adverse to quality associated with the protection of wires utilized inside of control room relay control panels.

Description. The team identified that PSEG failed to evaluate the acceptability of continued use of American Wire Gauge (AWG) number 22 wire inside a Unit 2 relay control panel. The wire was protected by a 15 ampere circuit breaker and was damaged by an over-current condition in September 2001 (notification 20077969). In April 2002, PSEG identified the need to evaluate this condition, however, the team determined that PSEG did not perform an evaluation and failed to prevent a subsequent occurrence at Unit 1 in March 2003.

During the recent event, several wires inside of the cabinet were damaged, including a wire integral to the 13 auxiliary feedwater pump speed control and indication circuit. PSEG tested the 13 auxiliary feedwater pump and indicated that it remained functional in the "as found" degraded condition. PSEG indicated that the load on the Unit 1 circuit was approximately 2 amperes but was unable to provide the original design basis for use of the 15 ampere circuit breaker.

Analysis. PSEG failed to evaluate and correct an adverse condition associated with ensuring adequate over-current protection for wires utilized in control room relay panels. The team determined that this finding was greater than minor since a recent over-current event resulted in damage to the insulation of wires for several systems including the speed control and indication circuit for the 13 auxiliary feedwater pump. The team reviewed this finding using the Phase 1 SDP worksheet and determined that the issue was of very low significance (Green) since the recent condition did not result in the loss of any mitigating equipment.

Enforcement. Title 10 to CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. Contrary to the above, PSEG failed to evaluate the adequacy of a condition where a 15 ampere circuit protective device was used to protect AWG number 22 wires in control panel applications. Because the failure to evaluate and correct this condition adverse to quality is of very low significance and has been entered into the corrective action program (notification 20137270), this violation is being treated as a NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-272,311/2003-04-01, Example 1, Failure to Correct Conditions Adverse to Quality.

.2 Failure to Repair a Problem with a Component Cooling Water Spring Can Hanger

Introduction. A Green NCV was identified for failure to properly investigate a degraded component cooling water spring can hanger condition.

Description. During a plant walkdown the team identified that a spring can hanger supporting a component cooling water line attached to the 12 residual heat removal (RHR) heat exchanger was coated with a calcified substance consistent with the residual debris from long term ground water in-leakage. The problem with the calcium deposits had been previously identified by PSEG in March 2001 (notification 20060667), however no corrective actions had been implemented. Subsequent to this recent finding, PSEG performed an additional inspection of the spring can and identified that the hangar spring was broken. PSEG initiated notification 20134299 to re-document the calcified deposit condition and also to document the untimely and ineffective corrective action associated with the degraded spring can.

Analysis. The deficiency associated with this matter was PSEG's failure to investigate a degraded component cooling water spring can hanger condition which apparently delayed identification that the hangar spring was broken. The finding was greater than minor since it resulted in operation of the component cooling water system with a degraded spring can hangar. The team reviewed this finding using the Phase 1 SDP worksheet for mitigating systems and determined that the finding was of very low significance (Green) since it did not result in the loss of any mitigating system.

Enforcement. Title 10 to CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. Contrary to the above, PSEG failed to promptly evaluate and correct a degraded spring can hangar on the component cooling water system. Because the failure to correct this condition adverse to quality is of very low significance and has been entered into the corrective action program (notification 20134299), this violation is being treated as a NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-272, 50-311/03-004-01, Example 2, Failure to Correct Conditions Adverse to Quality.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

Team members interviewed plant staff, observed various activities throughout the plant, and attended a cross section of meetings to determine if conditions existed that would result in personnel being hesitant to raise safety concerns to their management and/or the NRC.

(2) Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

The team presented the inspection results to Mr. O'Connor, Mr. Carlin, Mr. Garchow and other members of PSEG management on March 28, 2003. PSEG management acknowledged the results presented. No proprietary information was identified during the inspection.

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

K. Augustine	Reliability Engineer
C. Banner	Emergency Preparedness Supervisor
K. Berger	Licensing Engineer
N. Bergh	Quality Assurance Manager
B. Bingelli	Operations Supervisor
D. Booz	Operations SAP Coordinator
B. Bower	Production Engineer
H. Berrick	Response Team Member - Licensing
B. Bowen	Production Engineer
C. Buckley	Work Management Superintendent
W. Buirch	Fire Department Superintendent
J. Cardona	Controls Electrician
J. Carlin	Vice President - Engineering
V. Chandra	Principal Engineer
M. Chastain	Work Management
J. Cichello	Reliability Engineer
D. Coleman	Valve Engineer
J. Corbett	Design Engineering - Electrical
S. Corman	Operations
M. Dammann	Maintenance
D. Davis	Reliability Engineer
J. DeFebo	Quality Assurance Supervisor
J. Deyton	Work Management Cycle Lead
J. Dierick	Chemistry CAP
J. Duffy	Senior Nuclear Engineer
K. Fleischer	Electrical/I&C Design Engineering Supervisor
C. Fricker	Response Team Member - Operations
G. Greer	Reliability Engineer
R. Henriksen	Corrective Action Program Manager
F. Hummel	Reliability Engineer
R. Hurd	Maintenance CAP
M. Ivanick	Security Operations Superintendent
T. Lake	Employee Concerns
J. Lopez	Reliability Engineer
J. Louch	Controls Superintendent
P. Koppel	Design Engineering - Mechanical
D. Lyons	IST Implementation Engineer
T. Mohoney	Controls
M. McCabe	Operating Experience
D. McCollum	Valve Engineering
G. Mellott	Operations Supervisor
K. Miller	Design Engineer

G. Modi	Design Engineering - Electrical
K. Moore	Operations Support Manager
R. Morgan	Quality Assurance Engineer
G. Morrison	Supervisor, Mechanical Design Engineering
M. Morroni	Production Engineer
M. Mosier	Response Team Member - Licensing
G. Nagy	Engineering Manager
J. O'Conner	Engineering Manager
R. Olsen	Operations Superintendent
D. Parfitt	Chemistry
K. Petroff	Reliability Engineer
M. Pfizenmaier	Primary System Supervisor, Reliability Engineering
M. Rahmani	Reliability Engineer
G. Rich	Chemistry
R. Sambuca	Controls Supervisor
B. Sbroat	Reliability Engineer
B. Schuster	Work Management
R. Shindel	Operations CAP
C. Smyth	Licensing Projects Supervisor
F. Soens	Assistant Operations Manager
G. Salamon	Nuclear Licensing Manager
B. Thomas	Senior Licensing Engineer
L. Wagner	Director Work Management, CARB Chairman
P. Walsh	Manager, Reliability Engineering
W. Wikoff	ISI Engineer
F. Wiltsee	Response Team Member - Engineering
J. Zambuto	Maintenance CAP Supervisor

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

50-272, 50-311/03-004-01	NCV	Failure to Implement Corrective Actions (Section 4OA2.c.2)

LIST OF DOCUMENTS REVIEWED

Procedures

NC.NA-AP.ZZ-0002(Q), Rev. 8, Organization
NC.NA-AP.ZZ-0004(Q), Rev. 10, Station Operations Review Committee
NC.NA-AP.ZZ-0006(Z), Rev. 13, Corrective Action Review Board Process
NC.NA-AP.ZZ-0088(Q), Rev. 0, Performance Improvement Process
NC.CA-TM.ZZ-0003(Z), Rev.4, Root Cause Manual
NC.CA-TM.ZZ-0004(Z), Rev.1, Root Cause Evaluation Template
NC.CA-TM.ZZ-0005(Z), Rev. 2, Apparent Cause Evaluation Template
NC.DE-AP.ZZ-0030(Q), Rev. 0 Control of Temporary Modifications
NC.NA-AP.ZZ-0009(Q), Rev. 16, Work Management Program
NC.NA-AP.ZZ-0016(Q), Monitoring the Effectiveness of Maintenance
NC.NA-AP.ZZ-0074(Z), Differing Professional Opinion (DPO) Resolution
NC.NA-AP.ZZ-0078(Z), Employee Concerns Program
NC.WM-AP.ZZ-0000(Q), Rev. 5, Notification Process
NC.WM-AP.ZZ-0001(Q), Rev 7, Work Management Process
NC.WM-AP.ZZ-0002(Q), Rev. 6, Performance Improvement Process
NC.WM-AP.ZZ-0003(Q), Rev. 2, Regular Maintenance Process
S1.OP-AB.CW-0001, Rev. 13, Circulating Water System Malfunction
S1.OP-PT.SW-0004 (Q), Rev. 5, Service Water Biofouling Monitoring Safety Injection and Charging Pumps
S1.OP-PT.SW-0007 (Q), Rev. 7, Service Water Biofouling Monitoring Containment Fan Coil Units
S1.OP-SY.4KV-0001(Q), Rev. 11, Electrical Power Systems 4 KV Vital Bus Transfer
S2.OP-PT.SW-0004 (Q), Rev. 6, Service Water Biofouling Monitoring Safety Injection and Charging Pumps
SC.CH-AD.CS-0415(Q), Rev. 8, Adjusting Spray Additive Tank Concentration
SC.DE-TS.ZZ-2032(Q), Rev. 2, Physical Separation Requirements (Electrical)
SC.MD-ST.ZZ-0003(Q), Rev. 21, Inspection and Preventive Maintenance of Unit 1,2 and 3 Batteries
SC.OP-AB.ZZ-0003 (Q), Rev. 6, Component Biofouling
SE.MR.SA.01, Rev 11, Maintenance Rule System Function and Risk Significant Guide (Salem)
SH.ER-DG.ZZ-0002, Rev. 0, Maintenance Rule (a)(1) Evaluations and Goal Monitoring

Calculations

S-C-VAR-CDC-0095, Rev. 4, Spray Additive Tank (Deleted)
S-C-VAR-MDC-1429, Rev. 0, Section 8.11, Minimum Usable Volume for Spray Additive Tank
S-C-RC-MDC-1928, Determination of Effective Degradation Years
S-C-SW-MDC-1500, Rev. 0, Biofouling Monitoring and Trending

Audits and Self-Assessments

Radiation Protection Corrective Action Evaluations, Report Number 80026116/0020
Radiation Protection Corrective Action Evaluations, Report Number 80030976/0020
Radiation Protection Corrective Action Evaluations, Report Number 80038318/0020
Radiation Protection Corrective Action Evaluations, Report Number 80043789/0020
Radiation Protection Corrective Action Evaluations, Report Number 80047782/0020
Radiation Protection Corrective Action Evaluations, Report Number 80051804/0020
QA Assessment Report 2002-0018, Performance Engineering Program Administration
QA Assessment Report 2002-0243, Service Water and Circulating Water Systems Preparation for Grassing
Operations, Maintenance, Engineering Self Assessments 2001-2003
QA Quarterly Reports, 2001-2002
QA Assessments 2001-0008, 2002-0370, 2003-0027, 2001-0150, 2001-0302, 2001-0452, 2001-0471,
Component Cooling Water System Health Reports
125 Vdc System Health Report
4 kV System Health Report

CARB Meeting Minutes

February 5, 2002
March 18, 2003
March 25, 2003

Non-Cited Violations

50-272/01-03-01
50-272/01-06-001
50-311/01-08-01
50-272/01-09-02
50-272/01-10-01
50-311/01-10-02
50-311/01-11-01
50-311/01-11-02
50-311/01-11-03
50-272,311/01-11-04
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50-311/02-07-03
50-311/02-07-04
50-272/02-09-02
50-272,311/02-09-03
50-272/311/02-09-04
50-272/02-09-05

Notifications/Orders Reviewed as part of this Inspection

20035462, 20052181, 20052185, 20054038, 20056547, 20056723, 20058260, 20058293, 20058414, 20060667, 20061052, 20061162, 20061427, 20061659, 20062936, 20063076, 20058401, 20063850, 20064349, 20064417, 20065263, 20065366, 20066033, 20066514, 20066963, 20067333, 20067334, 20067340, 20068791, 20068963, 20070005, 20070410, 20071724, 20073729, 20074837, 20075914, 20076230, 20076547, 20078047, 20078117, 20078141, 20078709, 20079293, 20080286, 20082037, 20083003, 20083427, 20084063, 20084738, 20086085, 20086179, 20086203, 20087747, 20089109, 20089888, 20090573, 20090923, 20091973, 20092708, 20093161, 20093656, 20094258, 20095284, 20095802, 20096933, 20097022, 20099546, 20099566, 20101499, 20101777, 20101881, 20103950, 20104986, 20108950, 20110575, 20111363, 20111986, 20113054, 20116935, 20117001, 20117389, 20117622, 20117627, 20117696, 20118327, 20118336, 20118564, 20122943, 20123564, 20124754, 20124847, 20125507, 20125915, 20127190, 20127259, 20127330, 20127821, 20128238, 20128289, 20128290, 20128291, 20128476, 20131319, 20132727, 20133894, 20134052, 20135147, 20135178, 20135151, 20137354, 20135790, 20135832, 20135981, 20135990 20136253, 20136471, 30057961, 30081881, 30084678, 60020583, 60020590, 60026421, 60027725, 60034582, 70004741, 70013999, 70021131, 70022789, 70022987, 70023302, 70023341, 70025551, 70028631, 80034819, 80043339, 70023583, 70024304, 80042873, 80057382, 70027584, 70023651, 70015001, 60010836, 60013642, 60011367, 60011203, 70015673

Notifications Written as a Result of This Inspection

20130305	Biennial PIR Inspection
20134299	Broken Coil in Spring Can Hanger
20134599	CSAT NaOH Acid Standard Error
20135133	11 RHR Pump Seal Boron Accumulation
20135134	11 RHR Motor Oil Leak
20135138	Material Condition of 11 RHR Pump Room
20135140	Material Condition of 12 RHR Pump Room
20135211	Notification Not Processed IAW WMAP-0
20135303	Tight Radius on Control Cable SW-17 Valve
20135327	Insufficient Corrective Actions (re. Breaker Operation)
20135334	Evaluate the Existing Gap on (Battery) 2BTR2BDC
20135358	Calibrate Pressure Setpoint Indicator
20135360	Alarm Locked In Reduces Vigilance
20135383	Operability Screening Less than Adequate
20135423	Relay Cover Glass Cracked
20135426	Review Orders For 2B 125 VDC for Closure
20135531	Chemistry Procedure Graph
20135550	Bus UV Transfer Relay Pickup Setting
20135589	Procedure Revision to S1.OP-ST.4KV-0001
20135634	CC Heat Ex Slide Plate Discrepancy
20135638	Needle on Pressure Gage is Broken
20135917	Less Than Adequate Evaluation Documentation and Corrective Actions
20136432	12 RHR Pump Room Material Condition
20136586	Water Weeping Through Wall - S1 Switchgear room.
20136848	Ground Water Leaks into Breaker Panel
20136863	Revise NC.NP-AP.ZZ-0002(Q), Rev. 8
20136903	Replace Styrofoam (Spacers) and Bus Bar Fasteners

20136988	Untimely Notification Initiation (CSAT Unexpected Analytical Results)
20137270	Less Than Adequate Documentation of Request to Evaluate Wire Size
20137356	CARB Members Experience and Knowledge not Documented
20137381	Chemistry Procedure Graph Out of Date
20137267	Discrepancy in Calc. ES-4.006
20137492	SW Valve Metal Tag Data

Drawings

203001 A 8789-29	Unit 1 4160 Volt Group Buses One Line Diagram
203002 A 8789-34	Unit 1 4160 Volt Vital Buses One Line Diagram
203007 A 8789-28	Unit 1 125 V.D.C. One Line Diagram
203008 A 8789-12	Unit 1 250 V.D.C. One Line Diagram
203047 A 8789-33	Unit 1 1A 4160 Volt Vital Bus Undervoltage Transfer Relay Schematic
203061 A 8789-32	Unit 2 4160 Volt Vital Buses One Line Diagram
203062 A 8789-27	Unit 2 4160 Volt Group Buses One Line Diagram
203103 A 8789-24	Units 1 and 2, 1A and 2A 4160 Volt Vital Buses Bus Feeder CB 13ACD and 23ASD Schematic
203105 A 8789-23	Units 1 and 2, 1A and 2A 4160 Volt Vital Buses Bus Feeder CB 12ASD and 24ASD Schematic
203117 B 497-0	4160 V Vital Buses Relay Settings, Sheet 9
203242 B 9489-7	No. 1 Relay Room Relay Cabinet RC16-6 Arrangement
203552 B 9776-13	Auxiliary Building Ventilation Exhaust Filter Units Schematic
221410 B 9545-24	Unit 1 1CCDC 125V>D>C Distribution Cabinet Wiring Diagram
223720 A 1404-31	Unit 2 125 V.D.C. One Line Diagram
205331 A 8763-35	Unit 2 Component Cooling
205231 A 8761-43	Unit 1 Component Cooling
205232 A 8761-36	Unit 1 Residual Heat Removal
205332 A 8763-30	Unit 2 Residual Heat Removal
111008-08	Component Cooling Heat Exchangers
108724-05	Component Cooling Heat Exchangers

Miscellaneous

2003 NBU Grassing Readiness Assessment
Chemistry DataBase Analysis Results, CSAT, January 2002 - March 2003, Units 1 and 2
Configuration Baseline Document for Containment Spray, DE-CB.CS-0035(Q), Rev. 4
Detritus Risk Assessment, March 11, 2003
Evaluation S-1-CAN-SEE-1519, Rev. 0, SGS Containment, Liner Insulation Studs, 1RF14
Maintenance Department - CM Backlog Breakdown, Period Ending 3/23/2003
Salem Service Water and Circulating Water Systems Reliability Improvement Project, Rev. 0
Salem CWIS Impingement Daily Average, 3/13/2003
Salem CWIS Impingement Rolling Weekly Average, week ending 3/15/03
Salem Unit 1 Service Water, System Health Report, Period 07/01/02 to 11/30/02
Salem Unit 2 Service Water, System Health Report, Period 06/01/02 to 11/30/02
Salem Unit 1 Residual Heat Removal, System Health Report, Period 10/01/02 to 12/31/02
Salem Unit 2 Residual Heat Removal, System Health Report, Period 10/01/02 to 12/31/02
Salem Unit 2 Residual Heat Removal Pump 22 Vibration Date Report, Period 9/28/99 to 12/19/02

SGS Unit 1 PSA Risk Evaluation Form, Work Week 113(05)
SGS Unit 1 PSA Risk Evaluation Form, Work Week 114(06)
SGS Unit 2 PSA Risk Evaluation Form, Work Week 113(05)
SGS Unit 2 PSA Risk Evaluation Form, Work Week 114(06)

Vendor Information

VTM 309448, Rev. 7, Standby Battery Vented Cell Installation and Operating Instructions

LIST OF ACRONYMS USED

AWG	American Wire Gauge
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
CRDM	Control Rod Drive Mechanism
IPE	Individual Plant Examination
NCV	Non-Cited Violation
NOTF	Notification (PSEG input into their CAP)
OE	Operating Experience
PSEG	Public Service Electric Gas Nuclear, LLC
RHR	Residual Heat Removal
ROP	Reactor Oversight Process
SAT	Spray Additive Tank
SDP	Significant Determination Process
SW	Service Water