



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

June 30, 2011

Mr. Michael Annacone
Vice President
Carolina Power and Light Company
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461

**SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT – NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000325/2011008 AND
05000324/2011008**

Dear Mr. Annacone:

On May 26, 2011, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Brunswick Steam Electric Plant Units 1 and 2. The enclosed report documents the inspection findings, which were discussed on May 26, 2011, with you and other members of your staff.

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

On the basis of the samples selected for review, there were no findings identified during this inspection. The inspectors concluded that problems were properly identified, evaluated, and resolved within the corrective action program (CAP). However, during the inspection, some minor performance deficiencies were identified related to your prioritization and evaluation of identified problems and your adherence to site procedures associated with the corrective action program.

In accordance with 10 CFR 2.390 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 the 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/

George T. Hopper, Chief
Reactor Projects Branch 7
Division of Reactor Projects

Docket Nos.: 50-325, 50-324
License Nos.: DPR-71, DPR-62

Enclosure: Inspection Report 05000325/2011008 and 05000324/2011008
w/Attachment: Supplemental Information

cc w/encl. (See page 2)

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 ADAMS: X Yes ACCESSION NUMBER: ML111810009 X SUNSI REVIEW COMPLETE X FORM 665 ATTACHED

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SIGNATURE	RCT1	GJK2 by email	PKN by email	/RA/	GDS by email	RAM	
NAME	RTaylor	GKolcum	PNiebaum	GHopper	GSmith	RMusser	
DATE	06/28/2011	06/28/2011	06/29/2011	06/28/2011	06/29/2011	06/28/2011	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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Letter to Michael J. Annacone from George T. Hopper dated June 30, 2011

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT – NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000325/2011008 AND
05000324/2011008

Distribution w/encl:

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OE Mail

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-325, 50-324

License Nos.: DPR-71, DPR-62

Report No.: 05000325/2011008 and 05000324/2011008

Licensee: Carolina Power and Light Company (CP&L)

Facility: Brunswick Steam Electric Plant, Units 1 and 2

Location: 8470 River Road SE
Southport, NC 28461

Dates: May 9 – 13, 2011
May 23 – 26, 2011

Inspectors: R. Taylor, Senior Project Inspector, Team Leader
G. Kolcum, Resident Inspector, Brunswick
P. Niebaum, Resident Inspector, Browns Ferry
G. Smith, Senior Resident Inspector, Nuclear Fuel
Services

Approved by: G. Hopper, Chief,
Reactor Projects Branch 7
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000325/2011008, 05000324/2011008; 05/9/2011 – 05/26/2011; Brunswick Steam Electric Plant, Units 1 and 2; Biennial Inspection of Problem Identification and Resolution Program.

The inspection was conducted by a senior project inspector, a senior resident inspector, and two resident inspectors. No findings were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

Identification and Resolution of Problems

The inspection team concluded that, in general, problems were adequately identified, prioritized, and evaluated; and effective corrective actions were implemented. Site management was actively involved in the corrective action program (CAP) and focused appropriate attention on significant plant issues. The team found that employees were encouraged by management to initiate nuclear condition reports (NCRs) and action requests (ARs) as appropriate to address plant issues.

The licensee was effective at identifying problems and entering them into the CAP for resolution, as evidenced by the relatively few deficiencies identified by the NRC that had not been previously identified by the licensee during the review period. The threshold for initiating NCRs and ARs was appropriately low, as evidenced by the type of problems identified and large number of NCRs entered annually into the CAP. Action requests normally provided complete and accurate characterization of the problem. However, the team identified two minor equipment issues during system walkdowns involving selected risk-significant safety-related systems, which were not already entered into the CAP.

Generally, prioritization and evaluation of issues were adequate and consistent with the licensee's CAP guidance. Formal root cause evaluations for significant problems were adequate, and corrective actions specified for problems did address the cause of the problems. The age and extensions for completing evaluations were closely monitored by plant management, both for high priority nuclear condition reports (NCRs), as well as for adverse conditions of less significant priority. Also, the technical adequacy and depth of evaluations (e.g., root cause investigations) were typically adequate. However, the team identified minor issues associated with the licensee's prioritization and evaluation of issues.

Corrective actions were generally effective, timely, and commensurate with the safety significance of the issues.

The operating experience program was effective in screening operating experience for applicability to the plant, entering items determined to be applicable into the CAP, and taking adequate corrective actions to address the issues. External and internal operating experience was adequately utilized and considered as part of formal root cause evaluations for supporting the development of lessons learned and corrective actions for CAP issues. However, the team identified an example where a Significant Adverse Condition Investigation report did not

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evaluate the applicable operating experience as directed by the licensee's investigation procedure.

The licensee's audits and self-assessments were critical and effective in identifying issues and entering them into the corrective action program. These audits and assessments identified issues similar to those identified by the NRC with respect to the effectiveness of the CAP.

Based on general discussions with licensee employees during the inspection, targeted interviews with plant personnel, and reviews of selected employee concerns records, the inspectors determined that personnel at the site felt free to raise safety concerns to management and use the CAP as well as the employee concerns program to resolve those concerns.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

a. Assessment of the Corrective Action Program

(1) Inspection Scope

The inspectors reviewed the licensee's CAP procedures which described the administrative process for initiating and resolving problems primarily through the use of nuclear condition reports (NCRs). To verify that problems were being properly identified, appropriately characterized, and entered into the CAP, the inspectors reviewed NCRs that had been issued between June 2009 and May 2011 including a detailed review of selected NCRs associated with the following risk-significant systems: Service Water (SW), Emergency Diesel Generators (EDGs), and DC power. Where possible, the inspectors independently verified that the corrective actions were implemented as intended. The inspectors also reviewed selected common causes and generic concerns associated with root cause evaluations to determine if they had been appropriately addressed. To help ensure that samples were reviewed across all cornerstones of safety identified in the NRC's Reactor Oversight Process (ROP), the inspectors selected a representative number of NCRs that were identified and assigned to the major plant departments, including operations, maintenance, engineering, health physics, chemistry, and security. These NCRs were reviewed to assess each department's threshold for identifying and documenting plant problems, thoroughness of evaluations, and adequacy of corrective actions. The inspectors reviewed selected NCRs, verified corrective actions were implemented, and attended meetings where NCRs were screened for significance to determine whether the licensee was identifying, accurately characterizing, and entering problems into the CAP at an appropriate threshold.

The inspectors conducted plant walkdowns of equipment associated with the selected systems and other plant areas to assess the material condition and to look for any deficiencies that had not been previously entered into the CAP. The inspectors reviewed NCRs, maintenance history, completed work orders (WOs)/work requests (WRs) for the systems, and reviewed associated system health reports. These reviews were performed to verify that problems were being properly identified, appropriately characterized, and entered into the CAP. Items reviewed generally covered a two-year period of time; however, in accordance with the inspection procedure, a five-year review was performed for selected systems for age-dependent issues.

Control Room walkdowns were also performed to assess the main control room (MCR) deficiency list and to ascertain if deficiencies were entered into the CAP. Operator Workarounds and Operator Burden screenings were reviewed, and the inspectors verified compensatory measures for deficient equipment which were being implemented in the field.

The inspectors conducted a detailed review of selected NCRs to assess the adequacy of the root cause and apparent cause evaluations of the problems identified. The inspectors reviewed these evaluations against the descriptions of the problem described in the CRs and the guidance in licensee procedure CAP-NGGC-0205, "Condition

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Evaluation and Corrective Action Process.” The inspectors assessed if the licensee had adequately determined the cause(s) of identified problems, and had adequately addressed operability, reportability, common cause, generic concerns, extent-of-condition, and extent-of-cause. The review also assessed if the licensee had appropriately identified and prioritized corrective actions to prevent recurrence where applicable.

The inspectors reviewed selected industry operating experience items, including NRC generic communications to verify that they had been appropriately evaluated for applicability and that issues identified through these reviews had been entered into the CAP.

The inspectors reviewed site trend reports to determine if the licensee effectively trended identified issues and initiated appropriate corrective actions when adverse trends were identified.

The inspectors attended various plant meetings to observe management oversight functions of the corrective action process. These included NCR screening meetings and Management Review Committee (MRC) meetings.

Documents reviewed are listed in the Attachment.

(2) Assessment

Identification of Issues

The inspectors determined that the licensee was generally effective in identifying problems and entering them into the CAP and there was a low threshold for entering issues into the CAP. This conclusion was based on a review of the requirements for initiating CRs as described in licensee procedure CAP-NGGC-0200, “Condition Identification and Screening Process;” management’s expectation that employees were encouraged to initiate CRs for any reason, and the relatively few number of deficiencies identified by inspectors during plant walkdowns not already entered into the CAP. Trending was generally effective in monitoring equipment performance. Site management was actively involved in the CAP and focused appropriate attention on significant plant issues.

Based on reviews and walkdowns of accessible portions of the selected systems, the inspectors determined that system deficiencies were being identified and placed in the CAP.

Prioritization and Evaluation of Issues

Based on the review of NCRs sampled by the inspection team during the onsite period, the inspectors concluded that problems were generally prioritized and evaluated in accordance with the licensee’s CAP procedures as described in the NCR severity level determination guidance CAP-NGGC-0200, “Condition Identification and Screening Process.” Each NCR was assigned a severity level at the CAP coordinator (CAPCO) meeting, and adequate consideration was given to system or component operability and associated plant risk.

The inspectors determined that station personnel had conducted root cause and apparent cause analyses in compliance with the licensee's CAP procedures and assigned cause determinations were appropriate, considering the significance of the issues being evaluated. A variety of formal causal-analysis techniques were used depending on the type and complexity of the issue consistent with CAP-NGGC-0205, "Evaluation and CAP Process."

The inspectors identified three performance deficiencies associated with the licensee's prioritization and evaluation of issues. These issues were screened in accordance with Manual Chapter 0612, "Issue Screening," and were determined to be of minor significance and not subject to enforcement action in accordance with the NRC's Enforcement Policy.

- During a review of the licensee's implementation of CAP-NGGC-0200, "Corrective Action," the inspectors determined that not all work requests (WR) were screened in accordance with the procedure. CAP-NGGC-0200 instructs the screening committee to "Review WRs/WO tasks to determine if an undesired condition exists per Attachment 1 (Specific Examples of Significance by Topical Area). Next initiate an NCR by converting the WR and complete the screening process." The inspectors notes that the licensee failed to screen WR/WOs as needing an NCR for those WR/WO which they believed did not require any type of causal evaluation. By converting WR/WOs to NCRs using attachment 1 the licensee should ensure that all undesired conditions are trended and monitored in the CAP. Inspectors did not identify any instances in which the licensee's failure to screen WR/WOs resulted in a failure to identify a negative performance trend. The licensee initiated NCRs 467668 and 467718 for this issue.
- During a review of the Priority 1 investigation for NCR 397712, trip of the 1B reactor feed pump and failure of the recirculation pumps to runback resulted in a reactor scram, the inspectors determined that the licensee did not identify a contributing cause for the event. Specifically, an opportunity existed in 2007 during implementation of EC-66310 on Unit 2 to identify that the adjustable snubbers were not included in the configuration management program. This, along with the root cause identified by the licensee, could have prevented the reactor scram on Unit 1 and should have been considered a contributing cause to this event. The inspectors concluded that adequate corrective actions were taken in that applicable plant drawings were updated with the proper configuration for these snubbers. This event was previously dispositioned in accordance with the NRC's enforcement policy in inspection report numbers 05000325/2010003 and 05000324/2010003. The licensee initiated NCR 467984 for this issue.
- The inspectors noted that three Extent of Cause (EC) reviews appeared to be less than adequate. Procedure CAP-NGGC-0205, "Condition Evaluation and Corrective Action Process" provides guidance for performing root cause evaluations (RCE). Regarding ECs, CAP-NGGC-0205 stated, "Evaluate the set of products, components, processes or persons that possess similar susceptibility to the identified root and primary contributing causal factor(s) and determine the degree to which these causes have resulted or could result in additional problems. Develop appropriate actions as applicable". As part of the

RCE, an extent of cause (EC) is performed. The EC should focus on forward looking vulnerabilities and not address historical data. Specifically, the EC should not focus on how many times this condition occurred in the past but, rather what is the likelihood that the same condition or concern could occur now or in the future. As part of CAP-NGGC-0205, the EC is formulated by asking the question, "Where else might these causal factors occur and lead to similar problems." The inspectors noted also that in some cases corrective actions were not developed as a result of ECs even though they may have been warranted. The licensee initiated NCR 260965 for these issues. Some examples include:

- NCR 344300 was a Significant Condition Adverse to Quality (SCAQ) and included a formal root cause. The EC in the RCE did not appear to address other areas where the causal factors could come into play. Also no corrective actions were developed even though the causal factors indicated potential vulnerabilities in other areas.
- EC associated with NCR 312876 did not take a broad enough review and focused solely on how the cause would affect other EDGs and not all risk significant components in the plant.
- Similarly, EC associated with NCR 356076 did not encompass a broad enough review and focused solely on how the cause (foreign material) would affect other governors on the remaining EDGs and not all risk significant components in the plant.

Effectiveness of Corrective Actions

Based on a review of corrective action documents, interviews with licensee staff, and verification of completed corrective actions, the inspectors determined that overall, corrective actions were timely, commensurate with the safety significance of the issues, and effective, in that conditions adverse to quality were corrected and non-recurring. For significant conditions adverse to quality, the corrective actions directly addressed the cause and effectively prevented recurrence in that a review of performance indicators, NCRs, and effectiveness reviews demonstrated that the significant conditions adverse to quality had not recurred. Effectiveness reviews for corrective actions to prevent recurrence (CAPRs) were sufficient to ensure corrective actions were properly implemented and were effective.

(3) Findings

No findings were identified.

b. Assessment of the Use of Operating Experience (OE)

(1) Inspection Scope

The inspectors examined licensee programs for reviewing industry operating experience, reviewed licensee procedure CAP-NGGC-0202, "Operating Experience Program," and reviewed the licensee's operating experience database to assess the effectiveness of how external and internal operating experience data was handled at the plant. In

addition, the inspectors selected operating experience documents (e.g., NRC generic communications, 10 CFR Part 21 reports, licensee event reports, vendor notifications, and plant internal operating experience items, etc.), which had been issued since May 2009 to verify whether the licensee had appropriately evaluated each notification for applicability to the Brunswick plant, and whether issues identified through these reviews were entered into the CAP. Procedure CAP-NGGC-0202, "Operating Experience Program," was reviewed to verify that the requirements delineated in the program were being implemented at the station. Documents reviewed are listed in the Attachment.

(2) Assessment

Based on a review of documentation related to the review of operating experience issues, the inspectors determined that the licensee was generally effective in screening operating experience for applicability to the plant. Industry OE was evaluated by plant OE Coordinators and relevant information was then forwarded to the applicable department for further action or informational purposes. OE issues requiring action were entered into the CAP for tracking and closure. In addition, operating experience was included in all root cause evaluations in accordance with licensee procedure CAP-NGGC-0205, "Condition Evaluation and CAP Process."

(3) Findings

No findings were identified.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

The inspectors reviewed audit reports and self-assessment reports, including those which focused on problem identification and resolution, to assess the thoroughness and self-criticism of the licensee's audits and self assessments, and to verify that problems identified through those activities were appropriately prioritized and entered into the CAP for resolution in accordance with licensee procedure CAP-NGGC-0201, "Self Assessment & Benchmarks Programs"

(2) Assessment

The inspectors determined that the scopes of assessments and audits were adequate. Self-assessments were generally detailed and critical, as evidenced by findings consistent with the inspector's independent review. The inspectors verified that CRs were created to document all areas for improvement and findings resulting from the self-assessments, and verified that actions had been completed consistent with those recommendations. Generally, the licensee performed evaluations that were technically accurate. Site trend reports were thorough and a low threshold was established for evaluation of potential trends, as evidenced by the NCRs reviewed that identified adverse trends.

(3) Findings

No findings were identified.

d. Assessment of Safety-Conscious Work Environment(1) Inspection Scope

The inspectors randomly interviewed 16 on-site workers regarding their knowledge of the corrective action program at Brunswick and their willingness to write NCRs or raise safety concerns. During technical discussions with members of the plant staff, the inspectors conducted interviews to develop a general perspective of the safety-conscious work environment at the site. The interviews were also conducted to determine if any conditions existed that would cause employees to be reluctant to raise safety concerns. The inspectors reviewed the licensee's Employee Concerns Program (ECP) and interviewed the ECP manager. Additionally, the inspectors reviewed a sample of ECP issues to verify that concerns were being properly reviewed and identified deficiencies were being resolved and entered into the CAP when appropriate.

(2) Assessment

Based on the interviews conducted and the NCRs reviewed, the inspectors determined that licensee management emphasized the need for all employees to identify and report problems using the appropriate methods established within the administrative programs, including the CAP and ECP. These methods were readily accessible to all employees. Based on discussions conducted with a sample of plant employees from various departments, the inspectors determined that employees felt free to raise issues, and that management encouraged employees to place issues into the CAP for resolution. The inspectors did not identify any reluctance on the part of the licensee staff to report safety concerns.

(3) Findings

No findings were identified.

4OA6 Meetings, Including Exit

On May 26, 2011, the inspectors presented the inspection results to M. Annacone and other members of the site staff. The inspectors confirmed that all proprietary information examined during the inspection had been returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

M. Annacone, Site Vice President
E. Willis, DSO
J. Frisco, Plant Manager
C. Dunsmore, Shift Ops Manager
B. Brewer, Maintenance Manager
F. Jefferson, Engineering Director
J. Mentel, Performance Improvement Manager
L. Grzeck, Licensing Supervisor
R. Holland, CAP/OE Supervisor
G. Galloway, Plant Ops Assessment Supervisor
P. Dubrouillet, Training Manager
J. Burke, Outage Manager
J. Stanley, Performance Improvement
Nancy Holley, Self Assessments/Benchmarking
Bertrand Wilder OE Coordinator
R. Bissett, Performance Improvement
E. Conway, Security
B. Gallup, CAP Coordinator
T. Sherrill, Licensing

NRC

G. Kolcum, Resident Inspector
P. O'Bryan, Senior Resident Inspector
R. Musser, Chief, Branch 4, Division of Reactor Projects

LIST OF REPORT ITEMS

Opened and Closed

None

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Procedures

CAP-NGGC-0200, Condition Identification and Screening Process, Rev. 33
CAP-NGGC-0201, Self-Assessment and Benchmark Programs, Rev. 16
CAP-NGGC-0202, Operating Experience Program, Rev. 18
CAP-NGGC-0205, Condition Evaluation and Corrective Action Process, Rev. 12
CAP-NGGC-0206, Assessment and Trending, Rev. 5
CAP-NGGC-1000, Performance Improvement, Rev. 3
WCP-NGGC-0300, Work Request Process, Rev. 1
WCP-NGGC-1000, Online Work Management, Rev. 3
OPS-NGGC-1305, Operability Determinations, Rev. 4
OENP-649, OneTime Inspection Program, Rev. 3
ADM-NGGC-0101, Maintenance Rule Program, Rev. 21
EGR-NGGC-0009, Engineering Change Work Management, Rev. 5
ADM-NGGC-0101, Maintenance Rule Program, Rev. 21
NGGD-0010, Nuclear Generation Group Policy for a Strong Safety Culture, Revision 0
NGGD-1400, NGG Self Evaluation Program, Revision 7
NOS-NGGC-0400, Employee Concerns Program, Revision 1
OPS-NGGC-1305, Operability Determinations, Revision 1
TAP-403, "Conduct of Examinations", Revision 10
TAP-411, "Continuing Training Annual/Biennial Exam Development, Administration, and Security", Revision 10

Test Procedures

OPS-NGGC-1311, Protected Equipment, Rev. 0
1MST-RHR28BR, RHR B Loop Time Delay relay Chan Cal, Rev. 1
1MST-RHR28AR, RHR A Loop Time Delay relay Chan Cal, Rev. 1
2MST-RHR28BR, RHR B Loop Time Delay relay Chan Cal, Rev. 1
2MST-RHR28AR, RHR A Loop Time Delay relay Chan Cal, Rev. 1
0AP-025, BNP Integrated Scheduling, Rev. 43
0AI-122, Pre-Job Briefings & Post Job Critiques, Rev. 23
OPT—08.2.2b, LPCI/RHR System Operability Test Loop B, Rev. 89
OPT—08.2.2b, LPCI/RHR System Operability Test Loop B, Rev. 90
OPT—08.2.2c, LPCI/RHR System Operability Test Loop A, Rev. 79

Nuclear Condition Reports

465303*	342827	356076
338676	345587	348329
340173	357017	352791
341668	357028	375865
343145	357866	379027
349426	370471	380756
355003	405102	382848
355626	356078	386907
356290	356606	419863
361974	366685	421264
339726	357054	453745
340429	354019	458655

343938	397712	357183
367775	397713	257661
370308	344233	359705
401243	329675	367339
406063	431099	383779
412863	424403	401157
425565	259088	407842
419794	346113	413184
426532	351002	427745
307894	383636	428054
278678	312876	428809
343543	344300	429541
289187	356076	395552
364860	403460	292216
389241	403477	325496
389619	421264	327475
329633	424415	332817
328082	458567	355811
364928	424932	383779
365149	230139	367339
427444	282917	395095
250389	292232	316695
417194	316695	

Work Orders

1375131	1649163	844624
1432087	1730894	1429492
1439816	1731059	1760369
1372519	1736503	1765075
1600684	1758796	1760369
1606292	1765362	1765510
1627905	1778839	

Work Requests

339694	433035
353997	433036
394204	434555
400252	438596
405940	438777
425348	43928
425424	439932
400252	
31229	
431840	
432118	
432394	

NCRs and Work Requests Written as a Result of the Inspection

NCR 465306, Possible Desensitization to JW Level Alarms on EDGs
 NCR 467398, Undocumented Rubber Lining Repair in B219
 NCR 467668, Need a Method to Trend WR/WO in the Corrective Action Program
 NCR 467718, Unclear Procedural Guidance for Converting WRs to NCRs
 NCR 467719, Untimely Change of CAP-NGGC-0200 for Clarification
 NCR 467887, No Investigation for Failed Support Weld on SW Pipe
 NCR 467984, NCR PI&R Follow-up to NCR 397712
 WR 484440, Air Deflector on 1B CSW Motor Needs to be Repositioned
 WR 484439, Oil Weeping from the 2-SW-V015 Motor Operator
 WR 484438, South Water Tight Door on DG Building Seal Degrading
 WR 484437, Floor Drain in SWB 4 Ft Elevation in Front of 1-SW-v12 Backed Up
 WR 484436, Floor Support on 1A CSW Motor Cooling Line Has Sheared Bolt

Self Assessments

448752-04, BNP Maintenance Work Order Documentation
 442628, BNP Performance Improvement
 402730, BNP Self Assessment/Benchmark Plan vs. Known Gaps
 395886, PRR Processing in Action Tracking
 415590, OE Use in Work Packages
 398621, Internal Operating Experience

Engineering Changes

EC-66310, Engineering Change for Unit 1 Installation of snubbers on feed pump instruments, Rev. 0
 EC-72733, Engineering Change for Unit 2 Service Water Pipe Downstream of PDV-68B, Rev. 0

Other Documents

System 4060 Health Report, Service Water – 4th quarter 2010
 System 4060 Health Report, Service Water – 2nd quarter 2011
 DBD-43, Service Water System Design Basis Document , Rev. 9
 SD-43, Service Water System Description, Rev. 21
 1OP-43, Service Water System Operating Procedure, Rev. 104
 BN-43.0.01, Service Water System P&ID, Rev. 1
 Maintenance Rule Scoping and Performance Criteria for Service Water System as of 5/11/2011
 D-25037, Reactor Building Service Water System Piping Diagram Sheet 1, Rev. 94
 D-25037, Reactor Building Service Water System Piping Diagram Sheet 2, Rev. 84
 D-20041, Service Water System Piping Diagram Sheet 1, Rev. 53
 D-20041, Service Water System Piping Diagram Sheet 2, Rev. 54
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