



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

August 21, 2013

Mr. Ronald A. Jones
Vice President, New Nuclear Operations
South Carolina Electric and Gas
P.O. Box 88 (Mail Code P40)
Jenkinsville, SC 29065-0088

**SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 – NRC
CORRECTIVE ACTION PROGRAM IMPLEMENTATION INSPECTION
REPORTS 05200027/2013007 AND 05200028/2013007**

Dear Mr. Jones:

On August 1, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed a corrective action program annual inspection at your Virgil C. Summer Nuclear Station Units 2 and 3. The enclosed inspection report documents the inspection results which were discussed on August 1, 2013, with Mr. J. Archie and other members of your staff.

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

Based on the inspection sample, the inspection team concluded that the implementation of the corrective action program and overall performance related to identifying, evaluating, and resolving problems at Virgil C. Summer Nuclear Station Units 2 and 3 was effective. Licensee and contractor- identified problems were entered into the corrective action program at an appropriate threshold. Problems were effectively prioritized and evaluated commensurate with the safety significance of the problems. Corrective actions were effectively implemented in a timely manner commensurate with their importance to safety and addressed the identified causes of problems. Lessons learned from industry construction experience were effectively reviewed and applied when appropriate. Audits and self-assessments were generally used to identify problems and appropriate actions.

No findings were identified during this inspection.

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 Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Michael Ernstes, Chief
Construction Projects Branch 4
Division of Construction Projects

Docket Nos.: 05200027, 05200028

License Nos: NPF-93, NPF-94

Enclosure: Inspection Report 05200027/2013007
and 05200028/2013007
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

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Letter to R. Jones from Micheal E. Ernstes dated August 21, 2013

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION UNITS 2 AND 3 - NRC
CORRECTIVE ACTION PROGRAM IMPLEMENTATION INSPECTION REPORTS
05200027/2013007 AND 05200028/2013007

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**U.S. NUCLEAR REGULATORY COMMISSION
Region II**

Docket Numbers: 05200027
05200028

License Numbers: NPF-93
NPF-94

Report Numbers: 05200027/2013007
05200028/2013007

Licensee: South Carolina Electric and Gas
South Carolina Electric and Gas

Facility: Virgil C. Summer Nuclear Station Unit 2
Virgil C. Summer Nuclear Station Unit 3

Location: Jenkinsville, SC

Inspection Dates: July 29, 2013 through August 1, 2013

Inspectors: A. Allen, Special Assistant, EICS
D. Jackson, Construction Project Inspector, DCP
J. Kent, Construction Project Inspector, DCP
A. Lerch, Construction Project Inspector, DCP
T. Steadham, Senior Construction Project Inspector, DCP
L. Wheeler, Reactor Systems Engineer, DSRA

Approved by: M. Ernstes, Chief
Construction Projects Branch 4
Division of Construction Projects

SUMMARY OF FINDINGS

Inspection Report 05200027/2013007, 05200028/2013007; 07/29/2013 through 08/01/2013; Virgil C. Summer Nuclear Station Unit 2, Virgil C. Summer Nuclear Station Unit 3, Routine Corrective Action Program Inspection.

This report covers an announced corrective action program implementation team inspection by regional and headquarters inspectors. The Nuclear Regulatory Commission's (NRC's) program for overseeing the construction of commercial nuclear power reactors is described in Inspection Manual Chapter 2506, "Construction Reactor Oversight Process General Guidance and Basis Document."

Problem Identification and Resolution

Based on the inspection sample, the inspection team concluded that the implementation of the corrective action program and overall performance related to identifying, evaluating, and resolving problems at Virgil C. Summer Nuclear Station Units 2 and 3 was effective. Licensee and contractor identified problems were entered into the corrective action program at an appropriate threshold. Problems were effectively prioritized and evaluated commensurate with the safety significance of the problems. Corrective actions were effectively implemented in a timely manner commensurate with their importance to safety and addressed the identified causes of problems. Lessons learned from industry construction experience were effectively reviewed and applied when appropriate. Audits and self-assessments were generally used to identify problems and appropriate actions. Although corrective action program trending was not always performed in a thorough and rigorous manner, the inspectors did not identify any trends that were not already being addressed in the corrective action program. Based on the independent assessment of safety culture results, interviews conducted during the inspection, and a review of the employee concerns program, employee freedom to raise nuclear safety concerns without fear of reprisal appeared to be demonstrated.

A. NRC-Identified and Self Revealed Findings

No findings were identified.

B. Licensee-Identified Violations

No findings were identified.

REPORT DETAILS

1. CONSTRUCTION REACTOR SAFETY

Cornerstones: Design/Engineering, Procurement/Fabrication, Construction/Installation, Inspection/Testing

1P01 Quality Assurance Implementation, Appendix 16, Inspection of Criterion XVI – Corrective Actions (35007)

.1 Assessment of Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program (CAP) to determine if the licensee was effectively implementing their 10 CFR Part 50, Appendix B approved quality assurance plan as required by 10 CFR Part 50.55. The licensee delegated responsibility for implementing elements of the corrective action program to an engineering, procurement, and construction (EPC) consortium consisting of suppliers Chicago Bridge and Iron (CB&I – formerly Shaw) and Westinghouse Electric Corporation (WEC). The delegation was permitted by the licensee's quality assurance plan; however, the plan also stated that the licensee maintained responsibility for the effectiveness of corrective action measures. Consequently, the inspection scope included a review of programs established by both the licensee and the EPC consortium.

The inspectors reviewed the licensee's and the EPC consortium's implementing procedures and documents, interviewed personnel, and attended meetings to assess the implementation of the CAP by site personnel. The inspectors reviewed issues identified after May 1, 2012, which included an overlapping portion of time since the last NRC CAP inspection in November 2012. The selection of issues ensured an adequate review of issues across the three CAP programs. The inspectors selected issues related to conditions adverse to quality (CAQ), significant conditions adverse to quality (SCAQ), and items that were determined to not represent a CAQ. The samples also included items related to:

- violations of regulatory requirements documented in NRC inspection reports;
- NRC operating experience (e.g. generic communications);
- industry operating experience; and
- self assessments and audits.

Additionally, the inspectors reviewed issue reports generated as a result of facility personnel's performance in daily plant activities. The inspectors reviewed corrective action documents and a selection of completed root cause and apparent cause investigations. During the reviews, the inspectors determined whether the actions were in compliance with 10 CFR Part 50, Appendix B, NQA-1-1994, and the corrective action program requirements applicable to each respective organization:

- licensee: procedure NND-AP-0002, Corrective Action and Trending Program, Revision 13

- licensee: procedure NND-AP-0018, Observation Program, Revision 4
- CB&I Services: procedure QS 16.5, Corrective Action Program, Revision 001
- WEC: procedure WEC-16.2, Westinghouse Corrective Actions Process, Revision 4.1

Specifically, the inspectors determined if personnel were identifying issues at the proper threshold, entering the issues into the CAP in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also determined whether personnel assigned the appropriate investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions (preventing recurrence if required by 10 CFR Part 50, Appendix B) for selected corrective action documents, completed investigations, and NRC findings.

The inspectors reviewed the selected corrective action documents to determine if the licensee and the EPC consortium appropriately followed applicable implementing documents and addressed the following CAP performance attributes, as applicable:

- Classification, prioritization, and evaluation for reportability (i.e., 10 CFR 50.55(e)) of conditions adverse to quality.
- Complete and accurate identification of the problem in a timely manner commensurate with its significance and ease of discovery.
- Screening of items entered into the CAP, as necessary to determine the proper level of evaluation.
- Identification and correction of: procurement document errors; deviations from procurement document requirements; defective items; poor workmanship; incorrect vendor instructions; significant recurring deficiencies at both vendor shops and on site; and generic procurement related deficiencies.
- Identification and correction of design deficiencies (errors). For significant deficiencies, it includes determining the cause and instituting fixes to the design process and QA program to prevent recurrence of similar deficiencies.
- Consideration of extent of condition, generic implications, common cause, and previous occurrences.
- Classification and prioritization of the resolution of the problem commensurate with its safety significance.
- Identification of root and contributing causes, as well as actions to preclude recurrence for significant conditions adverse to quality.
- Identification of corrective actions that are appropriately focused to correct the problem.
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue. If permanent corrective actions require significant time to implement, then interim corrective actions and/or compensatory actions are identified and implemented to minimize the problem and/or mitigate its effects, until the permanent action can be implemented.
- Provisions for escalating to higher management those corrective actions that are not adequate or not timely.

b. Assessment

(1) Effectiveness of Problem Identification

In general, problem identification was adequate and at an appropriate threshold. The sample of issues reviewed by inspectors that were entered into the various CAPs indicated a low threshold across all three organizations. Where corrective actions involved multiple organizations, the integrated corrective action programs, including the handoffs of corrective action program tasks between the licensee and the members of the EPC consortium, were effective in ensuring that identified issues were entered into all applicable corrective action programs.

Thresholds for identifying CAQs were adequate to ensure that adverse conditions were evaluated and corrected. Additionally, the inspectors determined that adverse conditions identified under other programs outside of the corrective action program, including quality assurance audits and management observation reports, were screened to determine whether the conditions were adverse to quality and entered into the respective CAP as required by procedure.

The licensee tracked selected issues in their CAP when the EPC consortium identified significant issues.

Findings

No findings were identified.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors determined that the overall performance in prioritization and evaluation of issues was acceptable. The timeliness of initial classifications and the level of classification appeared consistent with the respective CAP procedures. The inspectors examined selected samples of corrective action program entries made by the licensee and the EPC consortium and determined that the evaluations adequately considered the risk/safety significance, complexity of design and fabrication, and needs for special controls or surveillance over activities. Based on the selected samples, the inspectors determined that each of the programs implemented adequate methods for prioritizing issues and developing technical evaluations of issues.

Where applicable, significant conditions adverse to quality were identified, causes were determined, and corrective actions were taken to prevent recurrence. Significant conditions adverse to quality also addressed the extent of conditions, extent of cause, generic implications, and previous occurrences and were reported to appropriate levels of management. The inspectors determined that the cause evaluations for significant conditions adverse to quality were adequately thorough to determine the causes and to identify the appropriate corrective actions. In cases where formal root cause analyses were conducted, the root cause team was sufficiently independent of the issue being evaluated.

The inspectors reviewed a sample of corrective action reports that addressed issues from the 2012 NRC CAP inspection and concluded that the corrective actions resulted in an overall improvement in the implementation of the corrective action program from the previous CAP inspection.

Observations

The inspectors observed one routine initial screening meeting and one Management Review Team meeting conducted by the licensee and the EPC consortium for determining significance, priority, and responsibilities for evaluation and corrective actions. Based on these observations, the inspectors determined that the meeting attendees were focused on assuring corrective action reports contained adequate descriptions, proper classifications, assignments of responsible organization, assignments of responsible review manager, and assignment of appropriate levels of causal evaluations. The inspectors also determined that conditions adverse to quality were given the appropriate level of attention, assigned appropriate actions, and were reviewed in a timely manner.

Findings

No findings were identified.

(3) Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were generally timely and adequately implemented, commensurate with their safety significance. Problems identified using either root or apparent cause methodologies were resolved in accordance with applicable program and NRC requirements. The inspectors also sampled corrective action assignments for selected NRC documented violations and findings and determined that the actions were generally effective and timely. Corrective actions implemented for significant conditions adverse to quality appeared to be appropriately focused on preventing recurrence.

Observations

During an audit in December 2012, WEC identified that IR 12-264-M017 was inappropriately closed because the action to revise a procedure was not completed prior to closing the IR. Procedure WEC-16.2 required that all corrective actions be complete before closing the IR. WEC opened another IR, 13-001-C004, to track the procedure revision; however, the inspectors identified that WEC closed this later IR prior to revising the procedure. WEC identified that another open IR, 13-122-M034, included the procedure revisions that IR 13-001-C004 had intended to make.

Findings

No findings were identified.

.2 Assessment of the Use of Construction and Operating Experience

a. Inspection Scope

The inspectors reviewed six licensee and two EPC consortium construction and operating experience programs to determine if the licensee and their contractors were systematically implementing the following:

- relevant internal and external construction and operating experience items were collected;

- collected experience items were adequately evaluated;
- relevant experience items were communicated to affected stakeholders; and
- experience items were used to inform plant design and work processes.

The inspectors reviewed selected construction experience screening committee meeting minutes to determine if internal and external construction experience items were appropriately reviewed, screened, added to the licensee's database and assigned to the appropriate affected site stakeholders. The inspectors reviewed CAP documents to determine if the licensee and the EPC consortium were entering applicable industry experience items into the corrective action program and appropriately dispositioning the issues.

The inspectors reviewed the licensee's and the EPC consortium's construction experience databases to determine if the licensee was appropriately adding NRC related information such as 10 CFR Part 21 notifications and Generic Letters. The inspectors interviewed design engineering staff to determine if they were knowledgeable on relevant operating/construction experience that was applicable to their discipline.

b. Assessment

The licensee and the EPC consortium were appropriately screening, storing, evaluating, and communicating construction and operating experience items for potential effects on plant systems and work being performed by the licensee and its vendors. Where applicable, the licensee ensured that the EPC consortium was aware of relevant operating and construction experience commensurate with the safety significance of the issue.

Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors assessed the licensee and EPC consortium's ability to identify and enter issues into their respective CAPs, prioritize and evaluate issues, and implement effective corrective actions, through efforts from assessments and audits.

b. Assessment

Based on the inspectors' review of six audits, three self-assessments, and three surveillance reports issued by the licensee and the EPC consortium, oversight of each organization's respective CAP was sufficient to verify the health of the corrective program and to identify areas for improvement as needed. The inspectors compared the results of the audits and self-assessments to the results of the inspection and did not identify any significant discrepancies.

The inspectors determined that the conduct of audits and self-assessments by the licensee and EPC consortium members was being accomplished in accordance with appropriate procedures. Implementation of the oversight and independent verifications

provided sufficient assessments of program effectiveness. Where weaknesses were identified, corrective action documents were consistently initiated and followed up on during subsequent audits. Corrective actions to address the identified issues were generally prioritized, evaluated, and completed within applicable procedural requirements.

Both the licensee and CB&I developed a CAP trending program to help determine the adequacy of management oversight of corrective action program activities.

Observations

The licensee routinely reviewed the audit findings identified in the prior year's audit to determine if the corrective actions remained open; however, the licensee did not systematically review audit findings that were identified in older audits. This practice could result in the failure to follow-up on issues that an audit team determines should be within the scope of a future audit.

During the 2010 CAP audit, the licensee identified a procedural deficiency and documented the issue as CR-0-L-10-0136. During the 2012 CAP audit, the licensee identified that this issue remained open pending issuance of a new procedure that was then-currently in draft. The audit team determined that the 2010 audit finding was required to be followed-up on during the 2013 CAP audit and documented that requirement in audit report NND-AUD-201203-0. The 2013 CAP audit, documented in report NND-AUD-201304-0, did not follow-up on the 2010 audit finding. The inspectors reviewed CR-0-L-10-0136 and determined that all actions to address the 2010 audit finding were completed.

Due to restricting the data that CB&I reviewed in the first quarter 2013 trend report to CAQs entered into their CAP, the CB&I program excluded a larger population of corrective action documents that could be useful in identifying low level trends that either could represent a CAQ when taken in aggregate or could result in a CAQ if left uncorrected. The licensee and CB&I continue to work together to obtain a more robust trend report from CB&I. As of this inspection, trend data was not available from WEC.

Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment and Safety Culture

a. Inspection Scope

The inspectors conducted reviews to provide insight into whether a safety conscious work environment (SCWE) had been maintained, to confirm that the applicant and contractors were complying with NRC requirements, to provide information related to cross-cutting areas that could be used in the assessment process, and to evaluate management/QA oversight of the corrective action process. These reviews were used to help determine if licensee personnel were reluctant to report safety issues. The inspectors interviewed staff and observed other activities involving licensee personnel during the inspection to identify areas and issues that may represent challenges to the free flow of information, such as areas where employees may be

reluctant to raise concerns or report issues in the CAP. The inspectors also determined if repeat issue identification might have been the result of inadequate corrective action which could cause personnel to be reluctant to identify additional related issues.

The inspectors evaluated both a sample of anonymous concerns entered into the corrective action program and the methods used to resolve safety significant issues where the methods represented alternates to the problem, identification, and resolution processes (e.g. Employee Concerns Program). The inspectors evaluated these documents to determine if the original concerns were accurately entered into the corrective action program in a timely manner consistent with the safety significance of the issue, whether the issues were evaluated appropriately, and if the identified issues were adequately resolved in accordance with QAD 16.5.

The inspectors reviewed policies, procedures, CADs, and other SCWE-related consortium documents including reviews of SCWE surveys and safety culture surveys and assessments. The inspectors evaluated SCWE policies and procedures to determine if the SCWE guidance provided clear, concise, and complete information regarding how to report concerns, contact information for reporting concerns, how concerns are processed, how feedback is provided after a concern is processed, how concerns are tracked, when concerns would be entered into the corrective action program, and how anonymous concerns are processed. SCWE policies and procedures were also reviewed to determine if any administrative barriers exist that may prevent the reporting of a concern or deter the free flow of information.

The inspectors reviewed SCWE Surveys and the Safety Culture Survey to determine if there were any negative trends related to SCWE (i.e., any notable positive or negative trends between the 2011 and 2012 surveys or if there were any organizational outliers) and if actions recently implemented to improve SCWE appeared to be effective.

The inspectors interviewed Employee Concerns Program personnel and other staff who were the designated SCWE subject matter experts. Additionally, random interviews were conducted with approximately 50 field personnel. Interviews with SCWE subject matter experts were conducted to determine if the staff was knowledgeable of SCWE processes and procedures, to understand the interrelationship between SCE&G and CB&I Employee Concerns Programs, and to understand any current perceived challenges as it related to SCWE. Interviews were conducted with random personnel to determine if they knew how to raise safety concerns, if they felt free to raise such concerns, if they were aware of alternate means for reporting safety concerns, and if they would proceed with the work if the issue (concern) was not resolved to their satisfaction.

b. Assessment

Generally, individuals felt comfortable raising concerns, usually feeling most comfortable raising concerns to their first line supervisor. Most indicated they were familiar with the ECP and were aware of the ECP drop box locations. Six individuals expressed a reluctance to raise concerns because of the fear of retaliation. However, despite this general reluctance, they indicated that they would not hesitate to raise nuclear safety concerns. The information obtained through the random interviews with field personnel was consistent with the data gathered through CB&I's 2013 Safety Culture Survey.

Observations

The SCWE at V.C. Summer Units 2 and 3 appears to be improving, with the exception of a few pockets on site where individuals may still be reluctant to raise concerns. There does appear to be significant progress in this area, in that new policies and procedures have been developed and training has been revised. Increased leadership emphasis is being placed on awareness and understanding of safety culture and SCWE. Overall, both the safety culture and SCWE appear to be trending in a positive direction.

Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA6 Management Meetings

.1 Exit Meeting Summary

On August 1, 2013, the inspectors presented the inspection results to Mr. J. Archie, Chief Nuclear Officer, along with other licensee and consortium staff members. The inspectors stated that no proprietary information would be included in the inspection report.

KEY POINTS OF CONTACT

Licensees and Contractor Personnel

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M. Ernstes, Chief, Construction Projects Branch 4, Division of Construction Projects

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

Section 1P01.1:

CB&I:

Corrective Action Documents:

- CAR 2013-1317, QAD 15.1 Contains Administrative Error, dated 08/01/13 (NRC-Identified)
- CAR 2012-1093, Discrepancies Between DEL, TDL, and Documents Included in Work Package, 08/27/12
- CAR 2012-1197, Performance Improvement Team Review of Trend Analysis data for 2012 Quarter 1 & 2 in the Cornerstone of Design Engineering: Human Performance, 9/20/2013
- CAR 2012-1050, Rebar did not meet minimum bend diameters, 8/28/2012
- CAR 2012-0570, The VC Summer Project Quality Assurance Plan (PQAP) document title is not consistent with those defined in QAD 5.1. This condition was identified during QA audit 2012-11., 5/24/2012
- CAR 2012-0554, Work Outlined in Two Work Packages Done Under One Work Package, 5/21/2012
- CAR 2013-0097, Revised Design Document drawings are not being issued with the respectively revised Released Document List, 1/23/2013
- CAR 2012-1143, Comprehensive Look Back at VC Summer CARs, 14 Sep 2012
- CAR 2012-1640, Mistras NDE Level III certification Records do not meet requirements as delineated in Mistras procedure 100-QC-005.2 Rev 2 and 100-QC-005.2 G Rev. 1, 7 Dec 2012
- CAR 2012-1141, Construction did not notify Quality Control for the pre-placement, placement, and testing of grout placed under Unit 2 Nuclear island Sump legs, 13 Sep 2012
- CAR 2012-1150, Concrete placed without paperwork properly signed off, 17 Sep 2012
- CAR 2012-1275, CAR Backtracker, 1 Oct 2012
- CAR 2012-1276, CAR Backtracker – Question #22, 1 Oct 2012
- CAR 2012-1277, CAR Backtracker – Question #8, 1 Oct 2012
- CAR 2012-1115, AMEC 10 CFR 21/50.55e Evaluation for VCS-ND-12-0352, 12 Sep 2012
- CAR 2012-0950, Commercial Grade Dedication of VC Summer Units 2&3 Waterproof Membrane, dated 8/3/2012
- CAR 2012-1237, NI Mechanical Splice Installation (Generated in response to Significance Review), dated 9/27/2012
- CAR 2012-1621, SCANA Self-Assessment SA-12-CON-04, ITAAC Related Work Packages, dated 12/5/2012
- CAR 2010-12-08-971, 10/12/10. Rebar installation at the HLD in unauthorized design change and non-conforming material
- CAR 2012-0399, 4/20/12, CAQs designated as Non CAQs
- CAR 2012-0867, 7/2/12, Reject tags and risk tags falling off component or tags faded
- CAR 2012-1028, 8/16/12, FFD related to badging
- CAR 2012-1267, 8/20/12, Embed plates and welding
- CAR 2012-1510, 11/8/12, NRC November 2012 Inspection
- CAR 2012-1513, 11/8/12, NRC November 2012 Inspection
- CAR 2012-1691, 12/17/12, QA/QC review of corrective actions (CAP 2012-0325)
- CAR 2013-0591, 4/2/13, non-safety related materials identified as safety related
- CAR 2012-0874, Evaluation of vendors' failure to provide quality products, 7/16/2012
- CAR 2013-0322, Circulating Water System Cooling Tower Package Welding Inspection, dated 02/28/13
- CAR 2013-0326, Unacceptable Welding Procedure Specification 13, dated 03/01/13

CAR 2013-0369, Deficient Storage/Staging of Materials, dated 03/11/13
 VS2-CR01-GNR-018, Field Deviation Report NI Rebar Bend Issue, Rev.0
 VCS-ND-12-0398, Nuclear Island Pre-fabricated Rebar, 8/28/2012
 VCS-ND-12-0419, 8/20/12, Embed plates and welding
 Field Deviation Report, VS2-CE01-GNR-003, 9/17/12, Embed plates and welding

Procedures:

NCSP 2-19-2, Work Package Planning, Development, Approval and Closure, 3/11/2013
 QAD 10.68, Inspection Planning, Rev. 002
 QAD 5.1, Preparation, Issue, and Control of Quality Assurance Procedures, Rev. 001
 QAD 5.1, Preparation, Issue, and Control of Quality Assurance Procedures, Rev. T
 QS 7.1, Receiving Process, Revision G with Change Notice Rev. G.1
 QS 16.5, Corrective Action Program, Rev. 1
 QS 16.6, Causal Analysis, Rev. A, with Change Notice dated 1/8/13
 QAD 15.1, Nonconformance & Disposition Tagging, Rev. 0
 QSI 15.1, Site Quality Material Tagging, Rev. 0

Miscellaneous:

C112-12-0206, Shaw Nuclear Quality Assurance Form, 8/15/2012
 C112-12-0216, Shaw Nuclear Quality Assurance Form, 8/17/2012
 Quarterly Analysis of Corrective Actions First Quarter 2013 Trend Report, dated 06/04/13
 Selected Apparent Cause Training Records
 Selected Root Cause Training Records
 Mistras Procedure 100-QC-005.2G, Addendum G Qualification and Certification of
 Nondestructive Test Personnel in Accordance with ASNT SNT-TC-24, 1992 Edition and Shaw
 Power Group, Nuclear Division Requirements, Rev. 2
 Mistras Procedure 100-QC-005.2, Qualification and Certification of Nondestructive Test
 Personnel, Rev. 3

SCE&G:

Corrective Action Documents:

CR-NND-13-00179, CRs not found in Filenet, 2/28/2013
 CR-NND-13-00053, CRs Entered into Filenet, 1/24/2013
 CR-NND-12-00509, Check Rebar Bend Radius, 8/8/2012
 CR-NND-12-00309, Inadequate follow-up and status control to audit findings from 2011 External
 Audit of NND Quality Systems (NND-AUD-201105-0), dated 5/31/2012
 CR-NND-12-00427, Potential discrepancy discovered with Shaw document QS 7.1 Receiving
 Inspection Process, dated 7/12/2012
 CR-NND-12-00474, Lack of process and impediments to FSAR Drawing Changes, dated
 7/31/2012
 CR-NND-12-00499, Licensing commitment for CV coatings not met, dated 8/6/2012
 CR-NND-12-00561, No revision to NND-AP-0006 was made to include NQA-1-1994 training for
 in-processing of NND personnel, as identified in CR-11-0231 during audit of NND Quality
 Systems (NND-AUD-201105-0), dated 8/31/2012
 CR-NND-12-00535, 8/21/12, FFD related to badging
 CR-NND-12-00792, 11/9/12, NRC November 2012 Inspection
 CR-NND-13-00256, NRC Preliminary White Finding, 03/26/13

Procedures:

NND-LIC-0006, Inspection Test Analysis and Acceptance Criteria (ITAAC) Corrective Action Screening and Evaluation, Rev. 0
 NND-AP-0006, NND Personnel In-Processing, Training, and Qualification, Revision 7
 NND-LIC-0004, UFSAR Revision Notice Processing, Revision 1
 NND-AP-0015, Cause Determination, Rev. 6
 NND-AP-0002, Corrective Action and Trending Program, Rev. 13
 NND-AP-0801, Corrective Action Interface, Rev. 2
 NNDG-0008, Cause Determination Guidelines, Rev. 2

Miscellaneous:

First Quarter 2013 Trend Report, dated 06/25/13
 Quality Assurance Program Description, dated 8/20/12
 UFSAR, Rev. 1

WEC:Corrective Action Documents:

IR 13-072-M003, Design Loads for the Pressurizer Column and Embedment are Less than Actual Loads, 03/13/13
 IR 12-264-M017, ASME Section III Criteria on WEC Quality Release, dated 09/20/12
 IR 13-001-C004, Improper Closure of Corrective Actions, dated 01/01/13
 IR 12-228-M012, VC Summer Rebar Bend Radius out of Spec, 8/15/2012
 IR 13-095-M011, Correction of DCD changes for DCP-1129 DP-13, 4/5/2013
 IR 13-085-M029, CBI CAR 2013-0097 Revised Design Document drawings are not being issued with the respectively revised Released Document List, 3/26/2013
 IR 12-185-M029, Error in Generic AP1000 Power Calorimetric Measurement Calculation, 7/3/2012
 IR 12-151-M005, Revision to E&DCR – Impacted Document Relationships not Reflected on Site Data Centers, 30 May 2012
 IR 13-059-M017, NRC Information Notice Identified by the V.C. Summer 2&3 Screening Committees potentially applicable OE for Westinghouse, 28 Feb 2013
 IR 12-130-M048, DCD ASCE 7 Code year discrepancy identified, dated 5/9/2012
 IR 12-165-M019, Mechanical Splice Requirements in APP-CR01-Z0-010 R6 changed by EDCR APP-CR01-GEF-005, dated 6/13/2012
 IR 12-226-M047, Procedure Noncompliance with APP-GW-GAP-117, dated 8/13/2012
 IR 12-250-M054, Errors and Missing Evaluations in AP1000 Accumulator Detailed Analysis Calc Note, dated 9/6/2012
 IR 13-015-M043, Revisions to CQR not Addressed in Procedures, dated 01/15/13

Procedures:

Westinghouse DP-13, Rev. 1
 WEC 16.2, Westinghouse Corrective Actions Process, Rev 4.1
 WEC 16.5, Apparent Cause Analysis, Rev. 2.0 APP-CR01-Z0-010, Specification for Supply and Installation of Mechanical Splices for Reinforcing Steel, Revision 6
 APP-GW-GAP-450, Work Instruction for Revising AP1000 E&DCR Impacted Document Information, Rev. 1
 APP-GW-GAP-463, Placement of Attachments to Structural Members in the Nuclear Island, Rev. 0
 APP-PLS-M3C-102, Power Calorimetric Measurement Uncertainty Calculations for AP1000, Rev. 0

APP-PLS-M3C-102, Power Calorimetric Measurement Uncertainty Calculations for AP1000, Rev. 1
 APP-GW-GEE-1129, Traction Elevator Machine Room Deletions, Rev. 0

Miscellaneous:

Selected Apparent Cause Qualification Records
 E&DCR VS2-PH01-GEF-000001, Rev. 0
 VS2 RDL List, 2013-07-23

Section 1P01.2:

SCE&G:

Corrective Action Documents:

CR-NND-13-00096, LER Supplement 2012-004-01 Submitted, dated 01/31/13
 CR-NND-13-00432, Evaluate ConE/OpE for Share the Knowledge Worksheet, dated 05/17/13
 CR-NND-12-00713, OE36327, dated 10/22/12
 CR-NND-12-00742, IER L3-12-74, dated 10/29/12
 CR-NND-12-00704, IER L3-12-60, dated 10/19/12
 CR-NND-12-00601, NRC IN 2012-17, dated 09/13/12

Miscellaneous:

Construction Experience Screening Committee Meeting Minutes, April through July, 2013

WEC:

Corrective Action Documents:

IR 12-299-C002, Operating Experience Report 12-46, dated 10/25/12
 IR 13-059-M017, NRC IN 2012-16, dated 02/28/13

Section 1P01.3:

SCE&G:

Corrective Action Documents:

CR-NND-13-00755, Audit Commitment not Completed, dated 07/31/13 (NRC-Identified)
 CR-NND-13-00767, IR 13-001-C004 Improperly Closed, dated 08/01/13 (NRC-Identified)

Procedures:

Procedure NND-AP-0024, Assessment Program, Rev. 2
 Procedure NND-QS-0005, QA Surveillances, Rev. 0
 Procedure NND-QS-0006, NND QS Audit and QAPD Review Programs, Rev. 0

Audits, Surveillances, and Self-Assessments:

Corrective Action Program Audit NND-AUD-201304-0, dated 05/23/2013
 Corrective Action Program Audit NND-AUD-201203-0, dated 05/10/2012
 Corrective Action Program Audit NND-AUD-201208-0, dated 05/11/2012
 Formal Self-Assessment SA-12-ODP-01, CAP Interface Implementation and Compliance with NRC IPs 35007/40504, dated 09/14/12
 Snapshot Self-Assessment SA-13-ODP-02, Snapshot Assessment of the CMMS Document-to-Records Process, dated 06/17/13

Snapshot Self-Assessment SA-13-ODP-01, INPO Construction Review Visit Snapshot Assessment for OD&P, dated 06/06/13

CB&I:

Corrective Action Documents:

CAR 2012-1699, Documenting Results of QA Surveillance, dated 12/17/12
 CAR 2012-1691, Review of Corrective Actions from QA Surveillance, dated 12/17/12

Audits, Surveillances, and Self-Assessments:

Corrective Action Program Audit 2012-33, dated 10/17/12
 Corrective Action Program Audit 2012-05, dated 03/14/12
 Surveillance Report S-132177-2012-134, Review of Nonconformance and Disposition Reports, dated 12/17/12
 Surveillance Report S-132177-2012-149, Significance Reviews, dated 12/17/12
 Surveillance Report S-132177-2012-148, Review of Unsatisfactory Inspection Reports, dated 12/17/12

Miscellaneous:

Procedure Request Form PRF-173, dated 01/03/13
 QA Inspection Report Q445-11-0288, dated 04/25/12

WEC:

Corrective Action Documents:

IR 13-212-M042, CAP 13-001-C004.01 Closure lacks Reference to Open IR and Commitments, dated 07/31/13 (NRC-Identified)
 IR 13-001-C004, Improper Closure of Corrective Actions, dated 01/01/13
 IR 12-264-M017, ASME Section III Criteria on WEC Quality Release, dated 09/20/12
 IR 13-001-C007, Nonconformances not Archived in EDMS, 01/01/13
 IR 13-001-C026, Hold Tags not Legible, dated 01/01/13

Audits, Surveillances, and Self-Assessments:

Corrective Action Program Audit WEC-12-62, dated 01/02/13

Section 1P01.4:

SCE&G:

Corrective Action Documents:

CR-NND-13-00396, 5/6/13, Monthly Observation Manager Audit Documentation
 CR-NND-13-00513, 6/6/13, Monthly Observation Manager Audit Documentation
 CR-NND-13-00641, 7/8/13, , Monthly Observation Manager Audit Documentation
 CR-NND-13-00006, 1/3/13, documents self assessment SA12-ODP-02 of Safety Culture conducted 11/26 - 12/6/12
 CR-NND-13-00007, 1/3/13, documents Areas for Improvement (AFI #1)
 ACE associated CR-NND-13-00007, 1/3/13, documents Areas for Improvement (AFI #1)
 CR-NND-13-00008, 1/3/13, documents Areas for Improvement (AFI #2)
 ACE associated with CR-NND-13-00008, 1/3/13, documents Areas for Improvement (AFI #2)
 CR-NND-13-00035, 1/16/13, CR for tracking WEC RCA Document in IR 12-336-M011

Procedures:

QSG-11, Employee Concerns Program Process, Rev. 0, 1/11/10
 SAP-1306, Employee Concerns Program, Rev. 3, 8/4/11
 NND-AP-0002, Corrective Action and Trending Program, Rev. 13, 1/28/13
 NND-AP-0018, Observation Program, Rev.4 , 3/19/13

Miscellaneous:

SCWE Survey 2011
 Safety Culture 2012 rollup results
 First Qtr 2013 Trend Report, Virgil C. Summer Nuclear Station, New Nuclear Deployment
 Safety Culture Training slides
 Employee Concerns Program (ECP) Training slide
 Sample Exit Questionnaires QSG-11, Rev 0, Att. 14
 Self Assessment SA12-ODP-02, VC Summer Units 2&3 Safety Culture Self Assessment, 11/26-12/6/12
 Observation Manager Forms

CB&I:Corrective Action Documents:

CAR 2012-1271, 10/1/12, Methodology for capturing issues when SCE&G initiates a CR and there is an expectation that Shaw or WEC develop a CAR or IR to track the same issue
 CAR 2012-1279, 10/1/12, Loss of traceability of reinforcing steel due to intermixing rebar with replacement rebar
 CAR 2012-1180, 9/18/12, Bypass Hold Point Work Step 2.0 #VS2-1210-POW-006(i) (Anonymous)
 CAR 2012-1103, 7/26/12, Material not stored properly in the field (Anonymous)

Miscellaneous:

Shaw Nuclear Services, Inc. Audit of PI&R – Audit No.2012-33, 9/24 – 10/2/12
 2013 Nuclear Safety Culture Survey Results for VC Summer Site, 5/30/13
 2012 Nuclear Safety Culture Results
 Shaw Nuclear Quality Standard, QS16.5, Rev.001, 10/1/12, Corrective Action Program
 Shaw Power Group Safety Conscious Work Environment Policy, PWR-PS-0002, Rev. 002, 7/26/12
 Shaw Power Group Procedure, Maintaining a Positive Nuclear Safety Culture & SCWE, 7/26/12
 CBI Power – Nuclear Procedure, Nuclear Employee Concerns Program, NDG 11-02-03, 4/11/13
 July thru Dec 2012 VC Summer Craft Assessment - Cumulative Results
 CB&I Nuclear Anonymous Condition Initiation Form

WEC:Corrective Action Documents:

IR 12-336-M011, Design and Licensing Issues with the Application of Shear Reinforcement in NI Structures, dated 12/1/12,
 Root Cause Analysis, CAPs-RCA-12-336-M011 Rev.2, 2/8/13, Design and Licensing Issues with the Application of Shear Reinforcement in NI Structures

Miscellaneous:

WEC LLC Safety Concerns Policy, Oct 2008

WEC 21.3, Rev. 0, DPO for Technical/Quality Issues, 6/20/13

WEC Corrective Actions Process Root Cause – Team Lead Update Training, Conducting a Nuclear Safety Culture Assessment during an RCA Assessment, Rev. 1, 7/12/13

ACRONYMS USED

ACI	American Concrete Institute
ASME	American Society of Mechanical Engineers
AWS	American Welding Society
CAP	Corrective Action Program
CAQ	Condition Adverse to Quality
CAR	Corrective Action Report
CB&I	Chicago Bridge and Iron
CFR	Code of Federal Regulations
CR	Condition Report
E&DCR	Engineering and Design Coordination Reports
EPC	Engineering, Procurement, and Construction
IMC	Inspection Manual Chapter
IR	Issue Report
ITAAC	Inspection, Tests, Analyses, and Acceptance Criteria
M&TE	Measuring and Test Equipment
N&D	Nonconformance and Disposition
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
QAPD	Quality Assurance Program Description
SCAQ	Significant Condition Adverse to Quality
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
UT	Ultrasonic Examination
WEC	Westinghouse Electric Company, LLC
WPS	Welding Procedure Specification