

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-1257

June 22, 2015

Michael Yox
Regulatory Affairs Director
Southern Nuclear Operating Company
7835 River Road, Bldg. 140, Vogtle 3&4
Waynesboro, GA 30830

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 – NRC PROGRAM INSPECTION FOR MANAGEMENT OF INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA AND CORRECTIVE ACTION PROGRAM IMPLEMENTATION INSPECTION, REPORTS 05200025/2015007 and 05200026/2015007

Dear Mr. Yox:

On May 21, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Vogtle Electric Generating Plant Units 3 and 4. The enclosed inspection report documents the inspection results, which the inspectors discussed on May 21, 2015, with MR. David Jones, Technical Compliance Vice President, and other members of your staff.

The inspection examined activities conducted under your license as they relate to your programs for managing inspection, test, analyses, and acceptance criteria and for 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 Vogtle Electric Generating Plant Units 3 and 4 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 enclosures, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the Public without redaction.

Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/

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

Docket Numbers: 5200025, 5200026

Licenses Numbers: NPF-91, NPF-92

Enclosure: NRC Inspection Report 05200025/2015007 and 05200026/2015007
w/attachment: Supplemental Information

Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the Public without redaction.

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Letter to M. Yox from Michael E. Ernstes dated June 22, 2015

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 – NRC PROGRAM
INSPECTION FOR MANAGEMENT OF INSPECTIONS, TESTS, ANALYSES,
AND ACCEPTANCE CRITERIA AND CORRECTIVE ACTION PROGRAM
IMPLEMENTATION INSPECTION, REPORTS 05200025/2015007 and
05200026/2015007

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U.S. NUCLEAR REGULATORY COMMISSION
Region II

Docket Numbers: 5200025
5200026

License Numbers: NPF-91
NPF-92

Report Numbers: 05200025/2015007
05200026/2015007

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Unit 3 Combined License
Vogtle Unit 4 Combined License

Location: Waynesboro, GA

Inspection Dates: May 18, 2015 through May 21, 2015

Inspectors: T. Chandler, Resident Inspector, DCP
M. Checkle, Senior Allegations Coordinator, EICS
J. Christensen, Construction Inspector, DCI
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Approved by: Michael Ernstes,
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Construction Projects Branch 4
Division of Construction Projects

Enclosure

SUMMARY OF FINDINGS

Inspection Report (IR) 05200025/2015007, 05200026/2015007; 05/18/2015 through 05/21/2015; Vogtle Unit 3 Combined License, Vogtle Unit 4 Combined License, NRC Program Inspection For Management Of Inspections, Tests, Analyses, And Acceptance Criteria (ITAAC) And Annual Corrective Action Program Implementation.

This report covers an announced team inspection for corrective action program implementation and licensee program for ITAAC management by regional 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 the Vogtle Electric Generating Plant Units 3 and 4 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. 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

IMC 2504, Appendix A, Inspection of Construction Programs

ITAAC Management

1P01 IP 40600, "Licensee Program for Managing Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Closure" – Sections 02.01, 02.02, 02.03 and 02.04

a. Inspection Scope

10 CFR 52.80 requires that the combined license application contain the proposed inspections, tests, and analyses that the licensee shall perform, and the acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, the facility has been constructed and will be operated in conformity with the combined license, the provisions of the Atomic Energy Act, and the Commission's rules and regulations. Pursuant to 10 CFR 52.99, licensees are required to submit notifications on ITAAC for use by staff to verify ITAAC completion. The notifications also provide the public with information regarding the completion of the ITAAC.

The purpose of this inspection was to determine whether the licensee, Southern Nuclear Operating Company, Inc. (SNC), and its engineering, procurement, and construction contractor consisting of Chicago Bridge and Iron (CB&I) and Westinghouse Electric Company (WEC), have:

- established programmatic controls to manage ITAAC closure;
- established an adequate process for preparing and approving notifications on ITAAC and that the process conforms to the applicable requirements of the licensee's quality assurance program;
- implemented their notifications on ITAAC in accordance with approved procedures and instructions; and
- implemented an ITAAC maintenance process to ensure that the acceptance criteria continue to be met until the finding described in 10 CFR 52.103(g) is made.

The inspectors reviewed licensee and contractor procedures that were used to control specific construction and tracking activities that relate to the completion of ITAAC to determine if adequate controls for ITAAC completion, documentation, records verification, quality assurance, and notification were in place. The inspectors reviewed a sample of ITAAC Closure Notifications (ICNs) and ITAAC completion packages to evaluate the principles underlying the basis for the verifiability of the licensee's ITAAC completion packages. The inspectors also determined whether controls had been established that provide reasonable assurance that the inspections, tests, and analyses have been successfully performed and the acceptance criteria have been met and are also being maintained. The inspectors also evaluated whether ITAAC closure documentation was traceable to Quality Assurance (QA) records and that those records

were retrievable. The inspectors also determined whether the licensee had adequate provisions in place to ensure that activities affecting successfully completed ITAAC do not invalidate the conclusion that the acceptance criteria are met. Specifically, the inspectors determined whether:

- an approved procedural and controlled QA process was used to document ITAAC closure;
- the ITAAC closure process was supported by verifiable documents and traceable records that confirmed that ITAAC were satisfactorily closed;
- ICNs were consistent with the examples in Nuclear Energy Institute (NEI) 08-01 and ITAAC completion packages supported the ICN conclusions;
- ITAAC issues that were identified by either the licensee or the NRC were closely tracked and resolved;
- qualification requirements and training activities had been established for the separate groups and individuals involved with preparation, verification, approval, and audit activities for both ITAAC completion packages and ICNs;
- interface controls among the various independent licensee groups involved with the ITAAC closure process had been defined;
- all ITAAC sub-tier construction activities had been adequately controlled and tracked from the start of any related construction to the submittal of the ICN to the NRC;
- ITAAC determination bases supported ITAAC closure and provided evidence of management oversight of the ITAAC during construction;
- there was adequate quality control involvement, such as hold points, where applicable in ITAAC construction activities;
- there was appropriate QA review and audit activities of the licensee's ITAAC management processes;
- conditions adverse to quality related to ITAAC were promptly identified and corrected; and
- there was adequate ITAAC maintenance provisions such that the validity of the acceptance criteria of the completed ITAAC can be maintained for the period of time between the submission of an ICN pursuant to 10 CFR 52.99(c)(1), and an affirmative 10 CFR 52.103(g) finding.

The inspectors observed several ITAAC management meetings, interviewed several personnel involved in the ITAAC management processes, observed in-process ITAAC activities being performed by the licensee and contractor, and reviewed ITAAC training records from both the licensee and contractors to determine whether ITAAC management processes were being implemented in accordance with approved procedures and NRC regulations. The inspectors also attended several corrective action program meetings throughout the week to determine that corrective action documents were being screened appropriately for ITAAC applicability.

b. Findings

No findings were identified.

Quality Assurance – Construction

1P02 IP 35007, “Quality Assurance Program Implementation During Construction and Pre-Construction Activities” – Appendix 16, Inspection of Criterion XVI – Corrective Action

.1 Assessment Use of Construction Experience

a. Inspection Scope

The inspectors reviewed the licensee's corrective action program (CAP) to determine if the licensee was effectively implementing their approved quality assurance plan as required by 10 CFR Part 50.55. The licensee delegated responsibility for implementing elements of the CAP to an engineering, procurement, and construction contractor consisting of CB&I and WEC (contractor). 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 contractor.

The inspectors reviewed the licensee's and the contractor's implementing procedures and documents, interviewed personnel, and attended meetings to assess the implementation of the CAP by site personnel. The inspectors reviewed a sample of issues processed or identified since the last CAP inspection in February 2014. The selection of issues ensured an adequate review of issues across the three corrective action programs. The inspectors sampled issues related to conditions adverse to quality and items that were determined to not represent conditions adverse to quality. The inspectors reviewed all issues categorized as significant conditions adverse to quality. The samples also included items related to:

- NRC operating experience (e.g. generic communications);
- industry operating experience; and
- self-assessments and audits.

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, "Quality Assurance Requirements for Nuclear Facility Applications"; NQA-1-1994; and the CAP requirements applicable to each respective organization.

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/or contributing causes. The inspectors evaluated the timeliness and effectiveness of corrective actions and actions to prevent recurrence if required by 10 CFR Part 50, Appendix B.

The inspectors reviewed the selected corrective action documents to determine if the licensee and the contractor 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 or errors, including determining the cause and instituting fixes to the design process and quality assurance program to prevent recurrence of similar deficiencies as appropriate;
- considerations for extent of conditions, generic implications, common causes, and previous occurrences as appropriate;
- classification and prioritization of the resolution of problems commensurate with safety significance;
- for significant conditions adverse to quality, identification of root and contributing causes, as well as actions to preclude recurrence;
- identification of corrective actions that are appropriately focused to correct the problem; and
- completion of corrective actions in a timely manner commensurate with the safety significance of the issue (including the use of interim corrective actions and/or compensatory actions to minimize the problem and/or mitigate its effects until permanent actions can be implemented).

Additionally, the inspectors reviewed a sample of issues entered into the SNC, CB&I, and WEC corrective action programs to determine whether the disposition and evaluation of those issues adequately considered risk, safety significance, consequence of malfunctions or failures, complexity of design and fabrication, needs for special controls or surveillance over activities, the degree to which functional compliance could be demonstrated by inspection or test, the quality history and degree of standardization of items, and the difficulty of repair or replacement. The inspectors assessed whether these issues were screened and classified in a timely manner, consistent with the applicable CAP procedures.

The inspectors reviewed a sample of corrective action records that included a variety of different classification levels under each corrective action program to determine whether:

- conditions adverse to quality were promptly identified and corrected;
- classification and prioritization of the resolution of each problem was commensurate with its safety significance;
- conditions were screened upon entry into the CAP to determine the proper level of evaluation;
- the items entered into the CAP included the identification and correction of issues throughout all aspects of the project scope;
- for significant conditions adverse to quality, the cause was determined, corrective actions were taken to prevent recurrence, and the cause and corrective actions taken were documented and reported to appropriate levels of management;
- proper consideration of extent of conditions, generic implications, common causes, and previous occurrences was performed;
- the corrective actions developed were appropriately focused to ensure the problems were corrected;
- the licensee and their contractors properly evaluated and reported conditions in accordance with 10 CFR 50.55(e) and 10 CFR Part 21;
- the identification and correction of design deficiencies were being adequately addressed;

- extent of conditions were adequately addressed and appropriate corrective actions were developed and implemented; and
- the evaluations properly considered the escalation of issues to higher management if the corrective actions were not adequate or timely.

The inspectors attended several meetings associated with the corrective action programs for the licensee and the contractor, including management meetings and issue screening meetings, to determine whether:

- the licensee and the contractor were identifying equipment, human performance, and program issues at an appropriate threshold and were entering the issues into their respective CAP;
- issues were appropriately screened and classified;
- trending aspects were appropriately applied to issues in accordance with the respective CAP and potential adverse trends were being identified and corrected;
- proper consideration of extent of conditions, generic implications, common causes, and previous occurrences was performed;
- conditions adverse to quality were controlled in accordance with each company's quality assurance program; and
- coordination between the various corrective action programs was managed appropriately to ensure identified conditions adverse to quality were corrected.

Specifically, the inspectors observed the following meetings:

- CB&I Daily CAP Call with Vogtle, V.C. Summer, and Charlotte;
- Integrated CAP Screening meeting;
- CB&I Vogtle Screening Meeting; and
- CAP Management Review Committee meeting with SNC, WEC, and CB&I.

The inspectors reviewed a sample of SNC surveillance reports and technical evaluations to determine whether items associated with unsatisfactory quality inspection results met the appropriate threshold for screening as conditions adverse to quality. Specifically, the inspectors reviewed these reports to determine whether they were completed in accordance with applicable procedures and whether discrepant items received the appropriate screening for entry into the CAP.

The inspectors reviewed trending procedures from SNC, CB&I, and WEC to determine whether trending was being performed on corrective action documents as required by quality assurance procedures. The inspectors interviewed SNC, CB&I, and WEC personnel to determine whether trending of corrective action documents was being performed in accordance with applicable procedures. The inspectors reviewed a sample of recent trend reports from SNC, CB&I, and WEC to determine whether:

- the trend reports were issued within the time frames established by procedures;
- the content of the trend reports contained information and analysis of licensee and contractor performance improvement activities; and
- condition reports were generated for any identified adverse trends or recommendations as required by the procedures.

The inspectors also reviewed a sample of SNC, CB&I, and WEC corrective action documents to verify that the issues identified in the trend reports were being handled in accordance with the corrective action program.

The inspectors reviewed a sample of licensee observation records, surveillance reports, and quality control inspection reports to determine whether:

- conditions adverse to quality when identified through these processes were appropriately entered into the licensee's CAP as required by procedures and
- any conditions adverse to quality were mischaracterized or inappropriately handled outside of the corrective action process.

In addition, the inspectors reviewed a sample of nonconformance and disposition reports (N&Ds) to determine whether:

- the reports correctly and clearly identified the nonconformances;
- the N&Ds were adequately initiated, processed, reviewed, dispositioned, and closed in accordance with the quality assurance program implementing documents for the control of nonconforming material, parts, and components;
- reportability screening and evaluations under 10 CFR Part 21 and 10 CFR 50.55(e) were performed;
- applicability to project documents, records, and ITAAC was properly identified and documented;
- the dispositions were properly identified and documented;
- adequate technical justification for the acceptability of a nonconforming item, dispositioned repair, or use-as-is was appropriately documented;
- nonconformances to design requirements dispositioned use-as-is or repair were subjected to design control measures commensurate with those applied to the original design;
- the as-built records properly reflected the accepted deviation, if applicable;
- controls were implemented to preclude the inadvertent use of nonconforming items and that nonconforming items were marked or tagged and segregated; and
- repaired or reworked items were reexamined in accordance with applicable procedures and with the original acceptance criteria unless the disposition had established alternate acceptance criteria.

b. Assessment

Assessment – Effectiveness of Problem Identification

The inspectors determined that problem identification was adequate and at an appropriate threshold. The sample of issues reviewed by the inspectors that were entered into the various CAPs indicated a low threshold across all three organizations. Where identified issues and corrective actions involved multiple organizations, the interfaces between corrective action programs were effective in ensuring that identified issues were entered into all applicable corrective action programs and were corrected. Thresholds for identifying issues and determining significance were adequate to ensure that adverse conditions were appropriately evaluated and corrected.

Assessment – Effectiveness of Prioritization and Evaluation of Issues

The inspectors determined that the overall performance in prioritization and evaluation of issues was acceptable and in accordance with the respective CAP procedures. The timeliness of initial classifications and the level of classification were consistent with the respective CAP procedures. Based on the samples selected, the inspectors determined that the evaluations adequately considered the risk, safety significance, complexity of

design and fabrication, and needs for special controls over activities. For significant conditions adverse to quality, the extent of conditions, extent of cause, generic implications, and previous occurrences were addressed and 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 to prevent recurrence.

Assessment – Effectiveness of Corrective Actions

The inspectors concluded that corrective actions for identified deficiencies were timely, adequately implemented, and commensurate with their safety significance. Problems identified through root and apparent cause methodologies were resolved in accordance with applicable program and NRC requirements. Corrective actions associated with significant conditions adverse to quality included provisions for preventing recurrence.

c. Findings

No findings were identified.

.2 Assessment Use of Construction Experience

a. Inspection Scope

The inspectors reviewed the SNC, CB&I, and WEC construction experience programs to determine whether the licensee and its 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 interviewed the SNC, CB&I, and WEC principal managers of construction and operating experience to gain a better understanding of the site's handling of relevant issues that may arise anywhere around the globe. The inspectors reviewed the licensee's construction experience database and corrective action program to determine whether items that were classified as applicable were stored in the construction experience database and entered into the corrective action program as specified by procedure. The inspectors reviewed the licensee construction experience database to determine whether the licensee appropriately added NRC related information, such as 10 CFR Part 21 notifications and Generic Letters. The inspectors reviewed a sample of CAP documents to determine if SNC, CB&I and WEC were entering applicable industry experience items into the corrective action program and dispositioning the items appropriately.

b. Assessment

The inspectors performed an assessment of the licensee's use of internally and externally identified construction and operating experience to ensure that the licensee adequately screened and evaluated this experience for applicability to their project. The

inspectors noted that the licensee routinely entered this information in their corrective action program for evaluation and/or tracking. The inspectors reviewed a sample of condition reports that were initiated in order to capture and evaluate relevant external and internal construction experience. The inspectors determined that the licensee had established adequate measures to identify and evaluate construction and operating experience the licensee and contractor properly communicated relevant operating and construction experience commensurate with the safety significance of the issue. The inspectors determined that construction experience items were appropriately screened, stored and evaluated for potential effects on plant systems and work being performed by the licensee and its contractors.

c. Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors reviewed a sample of self-assessments, audits, observations, and surveillance reports. The review was performed to determine whether the licensee and contractor oversight of the corrective action program was sufficient to verify the health of the corrective action program and to identify areas for improvement as needed. The inspectors also compared the results of the audits and self-assessments to the results of the inspection to determine if there were any discrepancies between the results of the inspection of the licensee's conclusions.

b. Assessment

The inspectors determined that the conduct of audits and self-assessments by the licensee and contractor were accomplished in accordance with appropriate procedures. The implementation of the oversight and independent verifications provided sufficient assessments of program effectiveness, including the interfaces of corrective action programs across organizational boundaries. Corrective actions to address the identified issues were generally prioritized, evaluated, and completed within applicable procedural requirements.

c. Findings

No findings were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors conducted reviews to provide insight into whether a safety conscious work environment (SCWE) is being maintained, to confirm that SNC and contractors are complying with NRC requirements, to assess SNC and contractor Employee Concern Programs' (ECP) effectiveness, and to evaluate management oversight of the corrective action process including anonymous CAP entries. These reviews were used to help

determine if licensee and contractor personnel were reluctant to report safety issues via the different avenues available (CAP, ECP, management, etc.).

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 interviewed ECP personnel and other staff who were the designated SCWE subject matter experts. Interviews with SCWE subject matter experts were conducted to:

- determine if the staff was knowledgeable of SCWE processes and procedures;
- understand the interrelationship between SNC and CB&I Employee Concerns Programs; and
- understand any current perceived challenges as they related to SCWE.

SNC and CB&I ECP procedures and files were reviewed to determine if:

- procedures were adequate;
- files contained adequate documentation;
- issues were entered and reviewed in a timely manner;
- concerns were adequately addressed;
- corrective actions were tracked; and
- whether individuals were provided feedback.

SNC and CB&I ECP audits and self-assessments were reviewed to determine if identified issues were addressed and actions to prevent recurrence were put in place.

The inspectors evaluated SCWE training material to determine if:

- the SCWE guidance provided clear, concise, and complete information regarding how to report concerns;
- the material included contact information for reporting concerns, roles and responsibilities, and the importance of reporting safety concerns and their impact; and
- whether training was effective.

The inspectors evaluated both a sample of anonymous concerns entered into the CAP and the methods used to resolve safety significant issues where the methods represented alternatives to the CAP, such as ECP.

The inspectors reviewed both SNC and CB&I anonymous CAP entries, CAP entries made by ECP or about ECP, and CAP entries pertaining to SCWE issues to determine if:

- these were entered into the corrective action program in a timely manner consistent with the safety significance of the issue;
- recurring issues were adequately evaluated and trended;
- the identified issues were adequately resolved;
- area trends raised via different avenues (e.g. management, ECP and CAP programs) were promptly identified and addressed; and
- the various programs were identifying the cross-cutting and underlying causes.

The inspectors also reviewed repeat issue identification in anonymous CAP entries to determine if these had been the result of inadequate corrective action which could cause personnel to be reluctant to identify additional related issues.

Additionally, interviews were conducted with approximately 100 randomly selected employees from SNC, WEC, CB&I Power, CB&I Services, Wachs Services, and MISTRAS. Interviews were conducted with random personnel to determine if they knew how to raise safety concerns, if they felt free to raise such concerns, and if they were aware of alternate means for reporting safety concerns.

b. Assessment

In general, the inspectors determined that:

- SCWE and CAP training was effective, in that employees indicated they were familiar with their employer's ECP, the CAP program, and were aware of the ECP/CAP drop box locations;
- the employees felt the CAP was effective and would use it if needed;
- SNC and CB&I ECP organizations were effectively handling concerns; and
- SNC, WEC, and CB&I Services individuals felt comfortable raising concerns.

Corrective actions to address SCWE concerns were in place, seemed to be effective, and the SCWE seemed to be improving. Some SCWE challenges were identified within CB&I Power. These issues, however, were being identified and proactively addressed by SNC, CB&I management, and ECP. Corrective actions were in place to address these issues. Increased leadership emphasis, from both SNC and the contractors, was being placed on awareness and understanding of safety culture and SCWE.

c. Findings

No findings were identified.

4OA3 Follow-up of Licensee Reports

a. Inspection Scope

On September 10, 2014, the licensee made a 10 CFR 50.55(e) notification (Event Notification No. 50441) due to the identification of a significant breakdown in the Quality Assurance Program of Chicago Bridge and Iron (CB&I) Lake Charles, a sub-supplier to CB&I Power. Safety related structural modules manufactured by CB&I Lake Charles and supplied to Vogtle Electric Generating Plant Units 3 and 4 contained welds that were made using welding procedure specifications that did not comply with American Welding Society (AWS) D1.1. Although previous revisions to the applicable welding procedures complied with AWS D1.1, CB&I Lake Charles later revised the welding procedures without the review and approval of CB&I Power. These later revisions utilized welding process variables that were not in accordance with the original procedure qualification record and were therefore no longer qualified in accordance with AWS D1.1.

CB&I Power was notified by CB&I Lake Charles of the QA breakdown and subsequently entered the issue into their corrective action program as Corrective Action Report (CAR) 2014-1316. Additionally, previous weld procedure discrepancies were identified and entered into the corrective action program as CARs 2014-0139 and 2014-0053. The

inspectors reviewed the events and circumstances related to the issue, including these three CARs, to determine if the licensee:

- effectively classified, prioritized, and evaluated the condition for reportability;
- completely and accurately identified the problem in a timely manner, commensurate with its significance and ease of discovery;
- reported the issue in accordance with the reporting requirements of 10CFR50.55(e);
- identified the cause and implemented corrective actions to prevent recurrence of similar deficiencies;
- considered the extent of condition, generic implications, common cause, and previous occurrences;
- classified and prioritized corrective actions commensurate with the safety significance of the issue;
- identified corrective actions that were appropriately focused to correct the problem; and
- completed corrective actions in a timely manner commensurate with the safety significance of the issue.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

.1 Exit Meeting

On May 21, 2015, the inspectors presented the inspection results to David Jones, Technical Compliance Vice President, along with other licensee and contractor staff members. The inspectors stated that no proprietary information would be included in the inspection report.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensees and Contractor Personnel

J. Beasley, CB&I Quality Control Engineering Manager
M. Connor, SNC Performance Improvement Supervisor
T. Edwards, SNC ECP Coordinator
B. Emmons, CB&I Performance Improvement
C. Fonseca, CB&I ITAAC Project Manager
D. Fujiyoshi, CB&I Licensing
D. Gardner, CB&I CAP Compliance Manager
C. Griffin, WEC ITAAC Manager
J. Marsh, SNC ECP, Manager
B. McCreary, CB&I ECP, Manager
R. Pennenga, CB&I CAP Compliance Manager
A. Rickman, SNC Senior Engineer
E. D. Rose, CB&I ECP Consultant
J. Sharp, WEC CAP Manager
V. Smith, SNC Senior Engineer
M. Washington, SNC Licensing
F. Willis, SNC Licensing Supervisor

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Item Number</u>	<u>Type</u>	<u>Status</u>	<u>Description</u>
EN50441	50.55(e)	Closed	CB&I Lake Charles WPS not in compliance with AWS D1.1

LIST OF DOCUMENTS REVIEWED

ITAAC Management

1P01

Corrective Action Documents

CR-713760, "LAR needed for Unit 4 ITAAC 3.9.05.01.04 (852)", created on 10/06/2013

CR-733848, "WEC ITAAC Closure Document does not meet ITAAC Acceptance Criteria", created on 11/15/2013

CR-776608, "Volumes for Unit 3 ACT A&B Tanks As-Built drawings are not correct", created on 2/20/2014

CR-748975, "Potential License Amendment Request (LAR) for ITAAC C.2.6.09.09", created on 12/26/2013

CR-819322, "CA05 Coating Report Nonconformances", created on 5/28/2014

CR-850786, "Noncompliant coatings on source range radiation detector wells", created on 8/07/2014

Issue ID 100001110, "GSI 191 Assumed Coatings ZOI", created on 1/28/2014

Issue ID 100004660, "SNC ICAP CR 790026 Incomplete IR Resolution IR 13-351-M038", created on 4/17/2014

Issue ID 100010947, "APP-PCS-T1P-502 Licensing Review needed on PCS Containment Cooling Flow Rates issue from GAP-147", created on 5/07/2014

Issue ID 100017138, "Measurement methodology for gap between reactor vessel and reactor vessel insulation", created on 5/14/2014

Issue ID 100023124, "AP1000 Coating Specs (SX/MX) do not comply with Coatings Requirements (X0)", created on 6/04/2014

Issue ID 100037921, "PV62 QA Data Packages missing coating documentation", created on 8/14/2014

Issue ID 100060397, "Incorrect values of IRWST Screen Frontal Face and Total Screen Areas", created on 11/13/2014

Issue ID 100071674, "CA20 Submodule 63 (CA20_63) Fire Barrier", created on 1/12/2015

ITAAC Closure Notifications

Letter from SNC to USNRC Document Control Desk, "Completion of ITAAC 2.1.03.11 [Index Number 86]," dated August 01, 2013. (ICN for Unit 3)

Letter from SNC to USNRC Document Control Desk, "Completion of ITAAC 2.2.03.08c.vi.02 [Index Number 190]," dated February 17, 2015. (ICN for Unit 4)

Letter from SNC to USNRC Document Control Desk, "Completion of ITAAC 2.3.11.02.ii [Index Number 451]," dated March 20, 2015. (ICN for Unit 4)

Letter from SNC to USNRC Document Control Desk, "Completion of ITAAC 2.3.11.03a [Index Number 453]," dated November 17, 2014. (ICN for Unit 3)

Letter from SNC to USNRC Document Control Desk, "Completion of ITAAC 2.4.02.03.i [Index Number 500]," dated April 23, 2014. (ICN for Unit 3)

Letter from SNC to USNRC Document Control Desk, "Completion of ITAAC 2.4.02.03.iii [Index Number 502]," dated October 24, 2014. (ICN for Unit 4)

ITAAC Completion Packages

SVP_SV0_002003, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 2.1.03.11 (#86)", dated 7/31/2013

SVP_SV0_003052, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.2.03.08c.vi.02 (#190)", dated 2/11/2015

SVP_SV0_003010, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.3.11.02.ii (451) (Activated Carbon Delay Bed Seismic Analysis)", dated 2/12/2015
SVP_SV0_002901, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 2.3.11.03a (453) (Verification of Activated Carbon Delay Bed Volume)", dated 11/12/2014
SVP_SV0_002424, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 2.4.02.03.i (500) (Independence and Isolation of the Turbine Overspeed Protection Systems)", dated 4/16/2014
SVP_SV0_002843, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.4.02.03.iii (502) (Verification of Turbine Overspeed Diversity)", dated 10/17/2014

ITAAC Maintenance Screenings

TE 666060, created on 7/03/2013
TE 884500, created on 10/23/2014
TE 914498, created on 3/10/2015
TE 919787, created on 4/28/2015

ITAAC Performance and Documentation Plans

APP-RXS-ITH-001, "Standard Plant ITAAC 2.1.03.11 Performance and Documentation Plan", Rev. 1
APP-PXS-ITH-041, "Standard Plant ITAAC 2.2 03.08c.vi.02 Performance and Documentation Plan", Rev. 0
APP-WGS-ITH-002, "Standard Plant ITAAC 2.3 11.02.ii Performance and Documentation Plan", Rev. 0
APP-WGS-ITH-003, "Standard Plant ITAAC 2.3 11.03a Performance and Documentation Plan", Rev. 0
APP-MTS-ITH-006, "Standard Plant ITAAC 2.4.02.03.i Performance and Documentation Plan", Rev. 0
APP-MTS-ITH-007, "Standard Plant ITAAC 2.4 02.03.iii Performance and Documentation Plan", Rev. 0

ITAAC Project Plans

2.1.03.11-U0-PrjPln, "ITAAC 2.1.03.11 Project Plan – Unit 3 or 4", Project Plan Version 1.0
2.2.03.08c.vi.02-U0-PrjPln, "ITAAC 2.2.03.08c.vi.02 Project Plan – Unit 3 or 4", Project Plan Version 1.0
2.3.11.02.ii-U0-PrjPln, "ITAAC 2.3.11.02.ii Project Plan – Unit 3 or 4", Project Plan Version 3.0
2.3.11.03a-U0-PrjPln, "ITAAC 2.3.11.03a Project Plan – Unit 3 or 4", Project Plan Version 1.0
2.4.02.03.i-U0-PrjPln, "ITAAC 2.4.02.03.i Project Plan – Unit 3 or 4", Project Plan Version 2.0
2.4.02.03.iii-U0-PrjPln, "ITAAC 2.4.02.03.iii Project Plan – Unit 3 or 4", Project Plan Version 1.0

Miscellaneous

SNC Quality Assurance Manual, "Nuclear Development Quality Assurance Manual, Version Number 13.0, Effective Date 02/24/2015
Training Records for 5 SNC staff trained to ITAAC requirements, current as of 5/18/2015
Training Records for 4 Consortium staff trained to ITAAC requirements, current as of 5/18/2015
APP-MV6H-VDR-001, "AP1000 MV6H WGS Delay Bed Design Report", Rev. 1
APP-PLS-J0R-009, "AP1000 Turbine Control & Protection System Overspeed Diversity Analysis", Rev. 0

SV3-MV01-VQQ-001, "Vogtle 3 Reactor Vessel Quality Release & Certificate of Conformance", Rev. 2
SV3-MV6H-VQQ-001, "Data Package and Quality Release for MV6H", Rev. 2
SV4-MT02-VDR-001, "AP1000 Vogtle 4 Accumulator Tanks Volumetric Scanning Report", Rev. 0

Procedures

ND-TC-VNP-002, "Site-Specific ITAAC PDP Development", Version 3.0
ND-TC-VNP-003, "ITAAC Project Plan Development and Execution", Version 10.0
ND-TC-VNP-004, "ITAAC Completion Package and Closure Notification Development Support and Review", Version 3.0
ND-TC-VNP-005, "Corrective Action Program (CAP) Screening for ITAAC Applicability", Version 4.0
ND-TC-VNP-006, "ITAAC Determination Report Development", Version 2.0
ND-TC-VNP-007, "Uncompleted ITAAC Notification (UIN) Development and Review", Version 2.0
ND-TC-VNP-008, "ITAAC Principal Closure Document Acceptance", Version 1.0
APP-GW-GAP-117, "Implementation and Control of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)", Rev. 5
APP-GW-GAP-609, "Screening Issues for ITAAC Significance", Rev. 1
SV0-GW-GAP-111, "Identification and Documentation of Manufacturing-Related ITAACs for Vogtle 3 & 4", Rev. 2
SV0-GW-GLH-002, "Vogtle Units 3 & 4 ITAAC Program Execution Plan", Rev. 1
CSI 2-24, "ITAAC Screening Process", Rev. 9
QSI 5.4-V, "QE/QC ITAAC Process", Rev. 6
QSI 5.5-V, "Quality Engineering Cross Function Training", Rev. 1
ND-QA-004, "Quality Assurance Internal Audits", Version 13.0
ND-QA-009, "Supplier Quality-Related Program Audits", Version 6.0
ND-QA-014, "Audits of the NDQA Department", Version 5.0

QA/QC ITAAC Audits and Surveillances

WEC-14-58, "Internal Audit Report", Rev. 0
ND-14-1909, "Nuclear Development Quality Assurance (NDQA) Audit, ND-S-ITAAC-2014, of SNC and Consortium ITAAC Program", dated 12/01/2014

Quality Assurance – Construction

1P02

CB&I Corrective Action Reports

2013-1767
2013-1793
2013-1919
2013-1994
2013-2139
2013-2140
2014-0043
2014-0118
2014-0123
2014-0143

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2014-0441
2014-0468
2014-0580
2014-0603
2014-0624
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2014-0679
2014-0707
2014-0709
2014-0720
2014-0813
2014-0864
2014-0882
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2014-0972
2014-0981
2014-0993
2014-1002
2014-1025
2014-1050
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2014-1142
2014-1145
2014-1164
2014-1175
2014-1179
2014-1225
2014-1304
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2015-1680

CB&I Procedures

CMS-805-01-PR-00001, Employee Concerns Program, Rev. 4
NCAP 2.1, "Trend Analysis," Rev. 000
NCSP 2-13-2, "Best Practices and Improvement Opportunities", Rev. 2
QS 09.04, "Visual Examination – Structural Welding," Rev. 02.00
QS 14.02, "Inspection Report System," Rev. 03.02
QS 15.01, "Nonconformance and Disposition Report," 05.02
QS 16.05 "Corrective Action Program," Rev. 06.00
QS 16.05, "Corrective Action Program," Rev. 06.00
QS 16.06, "Causal Analysis," Rev. 01.00

CB&I Quality Assurance Inspection Reports

Q445-006-14-0079, "Receipt Inspection-Reinforcing Steel," 02/27/2014
S511-002-14-0135, "Mechanical Rebar Splices-Tapered, Threaded headed Bar Assemblies (Terminators)," 10/28/2014

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APP-1110-GEF-066, "Changes to Containment Concrete Reinforcement," Rev. 0
APP-1240-GEF-135, "Auxiliary Building Wall 11 Reinforced Concrete Design Up to EL. 117'-6",
Rev. 0
APP-1240-GEF-135, "Auxiliary Building Wall 11 Reinforced Concrete Design Up to EL. 117'-6",
Rev. 1
APP-1240-GEF-192, "Auxiliary Building Floor EL. 117'-6", 121-0 & 126'-3" areas 3&4, Concrete
Reinforcement Drawing revision for details," Rev. 0
APP-CA01-GEF-496, "OLP Changes to CA01-36," Rev. 0
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APP-CE01-GEF-054, "Shield Wall Embeds EL. 98," Rev. 0
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and ratings requirements," Rev. 0
APP-GW-GEF-1268, "AP1000 Core Makeup Tank (MT01)/Accumulator Tank (MT02) Technical
Manuals Long-Term Storage Requirements Update," Rev.0

APP-GW-GEF-1268, "Core Makeup Tank (MT01)/Accumulator Tank (MT02) Alternate Manway Cover during Storage," Rev. 0
 APP-GW-GEF-605, "Battery Rack and Cell Storage Level Change," Rev. 0
 APP-MB01-GEF-112, "AP1000 Steam Generator - Design Changes to Receipt Inspection and Storage Technical Manual," Rev. 0
 APP-MV01-GEF-145, "Modification of AP1000 Reactor Vessel Long Term Storage Manual Requirements," Rev. 0
 APP-MV10-GEF-172, "AP1000 IHP Location Update for Storage Configuration," Rev.0
 APP-VCS-GEF-850006, "VCS storage requirements," Rev. 0
 SV0-1238-GEF-000001, "Concrete cover supports SC," Rev. 0
 SV3-1000-GEF-000002, "Rebar Splice to SB Reinforcement," Rev. 0
 SV3-CR01-GEF-000109, "Layer 4 Rebar at Column Line 11," Rev. 0
 SV3-MG01-GEF-000005, "VOG 3 Turbine Casing Site Storage," Rev. 0
 SV4-1200-GEF-000007, "KB10/KB13 Concrete Placement," Rev. 0
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 CB&I Surveillance report S-132175-2014-001, "Corrective Action Program," 01/13/2014
 Drawing APP-1230-CC-563, "Auxiliary Building Concrete Floor El. 100'-0" Areas 5&6," Rev. 5
 SNC 2014 Annual Audit – Vogtle 3&4 Concerns Program, dated 4/28/2015
 SNC Nuclear Development Quality Assurance Audit, ND-CS-CAP-2015, of Nuclear Development Performance Improvement and Corrective Action Program, 02/05/2015
 SNC Quality Assurance Manual, "Nuclear Development Quality Assurance Manual," Rev. 13.0
 WEC Vogtle 3 & 4 Quarterly CAP Trending Report, 2014 First Quarter
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Nonconformance & Disposition Reports

APP-CA01-GNR-850113, "SV3, CA01-21 (NCR 2014-346) Misalignment of sub-module wall plates," Rev. 0
 SV0-AT01-GNR-000015, "MSE Membrane Material Storage Level," Rev. 0
 SV0-AT01-GNR-000016, "MSE Membrane Material Storage Level," Rev. 0
 SV0-AT01-GNR-000017, "Membrane Material Storage and Expiration," Rev. 0
 SV0-MS10-GNR-000003, "Air Handling Units Exposed to Water," Rev. 0
 SV0-MS40-GNR-000001, "DGU Radiator Motor Heaters Not Powered," Rev. 0
 SV3-CA20-GNR-000407, "CA20 Attachment Bracket E32," Rev. 0
 SV3-CA20-GNR-000419, "Oversized tapped holes at Embed Plate 28," Rev. 1
 SV3-CA20-GNR-000492, "CA20, E28 threaded holes for cap screws," Rev. 0
 SV3-CB65-GNR-000027, "CB65 OLPs Interfering with Stiffeners," Rev. 0
 SV3-CC01-GNR-000118, "Conduit Enchased in concrete at 78'-6" +/- elevation," Rev. 0
 SV3-CC01-GNR-000145, "Concrete in CA20 Wedge Area," Rev. 0
 SV3-CR01-GNR-000073, "Wall K; Lap Splice running through Construction Joint (CJ)," Rev. 0
 SV3-CR01-GNR-000081, "Clear Cover: Battery Room Walls L, M, and P from 66'-6" to 82'-6"," Rev. 0
 SV3-CR01-GNR-000134, "Bent Rebar: Wall in Room 12154," Rev. 0
 SV3-EB01-GNR-000006, "Bus Duct Exposed to Water," Rev. 0
 SV3-ME01-GNR-000115, "Level B Storage Area Out of Compliance," Rev. 0
 SV3-MS40-GNR-000001, "MS40 Diesel Generator Units Not Meeting Storage Requirements," Rev. 0

SV3-MS60-GNR-000002, "MS60 Pumps not meeting storage requirements," Rev. 0
SV3-MV10-GNR-000001, "Unit 3 Integrated Head Package missed preventive maintenance,"
Rev. 0
SV3-TCS-GNR-000001, "Heat Exchangers not meeting Storage & PM requirements & Installed
w/o approved work order," Rev. 0
SV3-TCS-GNR-000002, "Heat Exchangers not meeting Storage & PM requirements & Installed
w/o approved work order," Rev. 0
SV4-CC01-GNR-000022, "U4 Concrete Pedestal Missed Basic Set Test Sequence," Rev. 0
SV4-CR01-GNR-000039, "AMEC CR-SV-190 Initial curing temps beyond maximum K Mix:
SV4," Rev. 0

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CMP-GO-RSHT-1014
CMP-GO-RSHT-1015
CMP-GO-RSHT-1016
CMP-GO-RSHT-1017
CMP-GO-RSHT-1018
CMP-GO-RSHT-1019
CMP-GO-RSHT-1020
CMP-GO-RSHT-1021
CMP-GO-RSHT-1022
CMP-GO-RSHT-1023
CMP-GO-RSHT-1077
CMP-GO-RSHT-1132

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Test (FAT) Documentation," 07/21/2014
CMP-DS-2014-9-10049, "CMP-SURV-Protection and Safety Monitoring System (PMS) Factory
Acceptance Test (FAT)," 08/01/2014
CMP-DS-2014-9-10114, CMP-SURV-Storage of Unit 4 Digital Rod Position Indication System
(DRPI) Equipment, 08/28/2014
CMP-DT-2014-10-10252, "Review of Protection and Safety Monitoring System (PMS) Design
Requirements Implementation," 10/17/2014
CMP-ENG-2014-10-10231, "Unit 3 Containment Vessel Bottom Head (CVBH) 80'-6" Concrete
Placement Readiness Walkdown," 10/07/2014
CMP-NI-2014-10-10248, "Unit 4 Nuclear Island - Pre Concrete placement civil activities of
interior wall placements #31, 32 and 33 from 66'-6" elv. to 82'- 6" (RM 12153),"
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CMP-NI-2014-11-10284, "Field Storage of Rebar," 11/05/2014
CMP-NI-2014-9-10036, "CMP-SURV-Unit 3 Steam Generator Lower Support Embeds,"
09/19/2014
CMP-NI-2014-9-10095, "CMP-SURV-Unit 3 Containment Concrete Curing at 80-6 Elev.,"
11/04/2014

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First Quarter 2015

SNC Construction Experience Screening Committee Meeting Minutes

ND-AD-VNP-004-F04, "Construction Experience (CE) Screening Committee Meeting Minutes,"
Version 1.0, dated April 22, 2015
ND-AD-VNP-004-F04, "Construction Experience (CE) Screening Committee Meeting Minutes,"
Version 1.0, dated August 13, 2014
ND-AD-VNP-004-F04, "Construction Experience (CE) Screening Committee Meeting Minutes,"
Version 1.0, dated November 10, 2014
ND-AD-VNP-004-F04, "Construction Experience (CE) Screening Committee Meeting Minutes,"
Version 1.0, dated March 18, 2015
ND-AD-VNP-004-F04, "Construction Experience (CE) Screening Committee Meeting Minutes,"
Version 1.0, dated May 6, 2015

SNC Condition Reports

437034
448673
465728
580392
722443
747282
755517
764966
768256
775714
776525
778973
779148
779203
779474
785084
788635
791820
792000
793550
794908
803656
807038
807191
807193
807344
811202
812507
813138
813285
813608
815598
818687
819711

823427
824707
824937
828090
829622
832007
832239
838804
844527
861970
867950
871071
897366
10001926
10001945
10009017
10019185
10019554
10048993

SNC Procedures

ND-AD-002, "Nuclear Development Corrective Action Program," Rev. 23
ND-AD-002-010, "Performance Monitoring and Trending," Rev. 2.0
ND-AD-VNP-001, "Interface of Corrective Action Processes," Rev. 4.0
ND-AD-VNP-004, "Construction Experience Program," Rev. 10
ND-AD-VNP-004-F04, "Construction Experience (CE) Screening Committee Meeting Minutes,"
Version 1.0

SNC Technical Evaluations

653139
699210
724888
724896
743315
743833
743861
743873
743879
743883
743885
743890
744125
744128
744154
749271
752015
756404
768926
776512
778226
779315

779772
779860
779862
781647
785538
785889
786818
786818
790329
794586
794591
795519
795536
809293
813420
813471
815072

WEC Corrective Action, Prevention and Learnings

100011436
100012415
100012421
100012572
100020333
100031403
100059771
100061140
100070847
100075129
100084857

WEC Procedures

APP-GW-GAH-004, "AP1000 Program Project Quality Plan," Rev. 2
APP-GW-GAP-106, "Corrective Action Interface," Rev.5
APP-GW-GAP-150, "Process and Guidelines for Preparing the Technical Content of AP1000
Certified for Construction (CFC) Civil/Structural Drawings," Rev. 1
WEC 16.10, "Common Cause Analysis (CCA)," Rev. 0.0
WEC 16.11, "Issue Review Committee," Rev. 1.0
WEC 16.12, "Limited Cause Analysis (LCA)," Rev. 0.0
WEC 16.13, "Effectiveness Review," Rev. 0.0
WEC 16.2, "Westinghouse Corrective Action Program," Rev. 8.0
WEC 16.3, "Corrective Action Review Board," Rev. 4.0
WEC 16.4, "Root Cause Analysis," Rev. 4.0
WEC 16.5, "Apparent Cause Analysis," Rev. 3.0

40A3

CB&I Lake Charles CR 2013-1641
CB&I Lake Charles Root Cause Evaluation 2013-1641
CB&I Power CAR 2014-0053
CB&I Power CAR 2014-0139

CB&I Power CAR 2014-1316

CB&I Evaluation ID 14-402, QA Program Issues Associated with CB&I Lake Charles WPS
Nonconformances, dated 9/3/14

SNC Letter ND-14-1419, 10 CFR 50.55(e) Report Regarding Results of Root Cause Analysis
for Deviations Associated with Welding Program Deviations for Sub-Modules Being
Supplied by CB&I Lake Charles for Vogtle Units 3&4, dated 9/10/14

SNC Audit No. SNC-ND-2014.07-CB&I-CORP-QAEP, Limited Scope Audit of CB&I Power
Corporate QA, dated 8/27/14

SNC Letter No. ND-15-0859, Corrective Actions Related to Audit No. SNC-ND-2014.07-CB&I-
CORP-QAEP, dated 5/6/15

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access & Management System
AWS	American Welding Society
CAP	Corrective Action Program
CAR	Corrective Action Report
CB&I	Chicago Bridge and Iron
CFR	Code of Federal Regulations
ECP	Employee Concerns Program
ICN	ITAAC Closure Notifications
IMC	Inspection Manual Chapter
ITAAC	Inspections, Tests, Analysis, and Inspection Criteria
N&D	Non Conformance & Disposition Report
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
QA	Quality Assurance
QC	Quality Control
SCWE	Safety Conscious Work Environment
SNC	Southern Nuclear Operating Company, Inc.
WEC	Westinghouse Electric Company, LLC