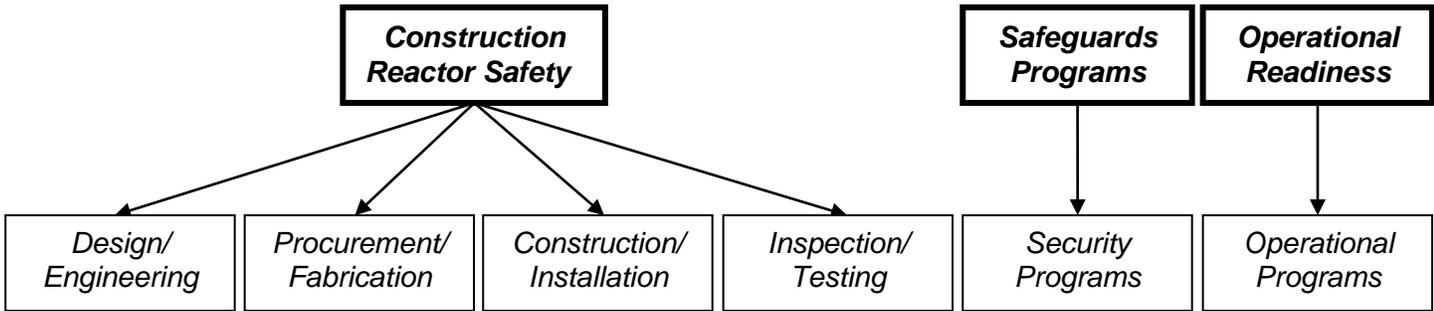


V.C. Summer Unit 2 3Q/2017 Performance Summary

[Construction Action Matrix Column:](#)
[Licensee Response](#)



Most Significant Inspection Findings

3Q/2017	No findings this quarter	G	No findings this quarter			
2Q/2017	G	No findings this quarter				
1Q/2017	G	No findings this quarter				
4Q/2016	G	No findings this quarter	No findings this quarter	G	No findings this quarter	No findings this quarter

Additional Inspection and Assessment Information

- ❖ [List of Construction Inspection Reports](#)
- ❖ [List of Construction Assessment Reports/Inspection Plans](#)
- ❖ [V.C. Summer Unit 2 Findings Archive](#)

Design Engineering

Identified By: NRC

Identification Date: 06/30/2017

Significance: Green

Item Type: ITAAC Finding

Licensee failure, through their contractor Westinghouse Electric Company (WEC), to perform thermal stress analysis in the ASME design report for the shear cap and valve body of the 14-inch fourth-stage automatic depressurization system (ADS) squib valves, RCS-PL-V004A/B/C/D.

Green: The NRC identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion III, "Design Control" for the licensee's failure through their contractor Westinghouse Electric Company (WEC) to perform thermal stress analysis in the ASME design report for the shear cap and valve body of the 14-inch fourth-stage automatic depressurization system (ADS) squib valves, RCS-PL-V004A/B/C/D. The licensee entered this finding into their corrective action program as CR-17-30805 (additional CR for CAPAL 100478313 was in process, but is no longer being created due to the decision announced on July 31, 2017, to cease construction of the project) and WEC CAPALs 100478099 and 100481984. The licensee performed immediate corrective actions to demonstrate with reasonable assurance through design analysis that the component would have been able to meet its design function. Additional long-term corrective actions included performance of additional analysis and revisions to the ASME design report and supporting documentation, but due to the cancellation of the project will not be pursued at this time. The inspectors determined this finding was associated with the Design/Engineering Cornerstone. The finding was determined to be more than minor because the performance deficiency represented an adverse condition that rendered the quality of component indeterminate, and required substantive corrective action. The inspectors also determined that the finding was more than minor because it represented an ITAAC finding that was material to the acceptance criteria of V.C. Summer Units 2 & 3 ITAAC 13 (2.1.02.02a), and if left uncorrected, the licensee may not have been able to demonstrate that the acceptance criteria of this ITAAC was met. The inspectors evaluated the finding in accordance with IMC 2519, Appendix A, "AP1000 Construction Significance Determination Process," and determined the finding was of very low safety significance (Green) because it was associated with the RCS system which is assigned to the high risk importance column of the AP1000 Construction Significance Determination Matrix, and the licensee was able to demonstrate with reasonable assurance that the design function of the applicable structure or system would not be impaired by the deficiency. The inspectors determined the finding was indicative of present licensee performance and was associated with the cross-cutting aspect of Documentation, in the area of Human Performance, in accordance with IMC 0613, Appendix F, "Construction Cross-Cutting Areas and Aspects." Specifically, the licensee failed to maintain complete, accurate, and up-to-date design documentation for the 14-inch ADS squib valves [H.7]. (Section 1A01)

Identified By: NRC

Identification Date: 03/31/2017

Significance: Green

Item Type: ITAAC Finding

Failure to adequately implement measures to assure that the design basis was correctly translated into design output documents

Green: The inspectors identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion III, "Design Control" for South Carolina Electric & Gas Company's (SCE&G) failure through their contractor Westinghouse Electric Company (WEC) to adequately implement measures to assure that the design basis was correctly translated into design output documents. The licensee entered this finding into their corrective action program as SCE&G Condition Report (CR) CR-NND-17-

30445 and WEC Corrective Action, Prevention, and Learning (CAPAL) System Issue DI 100460545. Corrective actions are planned to ensure design changes to the affected floor modules are met prior to pouring the concrete.

The finding was associated with the Design / Engineering Cornerstone. The finding was considered more than minor because the performance deficiency represented a substantive failure to adequately implement a quality assurance process that rendered the quality of a structure, system, and component (SSC) indeterminate. The inspectors evaluated the finding in accordance with IMC 2519, "Construction Significance Determination Process," and determined the finding was of very low safety significance because the licensee was able to demonstrate with reasonable assurance that the design function of the containment internal structures (CIS) floor at elevation 107'-2" would not be impaired. The inspectors determined that the finding represented an ITAAC finding because it was material to the acceptance criteria of VCSNS Unit 2 ITAAC 760, in that, if left uncorrected, the licensee may not have been able to demonstrate that the acceptance criteria of these ITAAC were met. The acceptance criteria of these ITAAC require that all deviations between the as-built structures and the approved designs be reconciled to verify that the as-built structures will withstand the design basis loads without a loss of structural integrity or other safety-related functions. The inspectors determined that the failure to adequately implement measures to assure that the design basis was correctly translated into design output documents may have resulted in a deviation from the approved design that would not have been reconciled by the licensee. The inspectors reviewed the finding for a possible cross-cutting aspect in accordance with IMC 0613 Appendix F, "Construction Cross-Cutting Areas and Aspects," and determined the finding was not related to any of the cross-cutting aspects (CCA) discussed in IMC 0613. (Section 1A24)

Identified By: NRC

Identification Date: 12/31/2016

Significance: Green

Item Type: ITAAC Finding

Failure to Properly Translate Design Requirements

The inspectors identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion III, "Design Control" for South Carolina Electric & Gas Company's (SCE&G) failure through their contractor Westinghouse Electric Company (WEC) to adequately implement measures to assure that design inputs are correctly translated into design documents. The licensee entered this finding into their corrective action program as SCE&G Condition Report (CR) CR-NND-16-01990 and WEC Corrective Action, Prevention, and Learning (CAPAL) System Issue ID 100423100.

The finding was associated with the Design/Engineering Cornerstone. The finding was considered more than minor because the performance deficiency represented a substantive failure to adequately implement a quality assurance process that rendered the quality of an structure, system, or component (SSC) indeterminate. The inspectors evaluated the finding in accordance with IMC 2519, "Construction Significance Determination Process," and determined the finding was of very low safety significance because the licensee was able to demonstrate with reasonable assurance that the design function of the in-containment refueling water storage tank (IRWST) would not be impaired. The inspectors determined that the finding represented an ITAAC finding because it was material to the acceptance criteria of VCSNS Units 2 and 3 ITAAC 760, in that, if left uncorrected, the licensee may not have been able to demonstrate that the acceptance criteria of these ITAAC were met. The acceptance criteria of these ITAAC require that all deviations between the as-built structures and the approved designs be reconciled to verify that the as-built structures will withstand the design basis loads without a loss of structural integrity or other safety-related functions. The inspectors determined that the failure to adequately implement measures to assure that design inputs are correctly translated into design documents may have resulted in a deviation from the approved design that would not have been reconciled by the licensee. The inspectors determined the finding had a cross-cutting aspect in the Human Performance area because the detailed design documentation for the CA03 module did not provide evidence that the

design was performed in accordance with quality assurance requirements, and that the IRWST would have performed satisfactorily in service. [H.7] (Section 1A18)

[Back to Top](#)

Procurement/Fabrication

Identified By: NRC

Identification Date: 07/31/2017

Significance: Unknown

Item Type: ITAAC Finding TBD: The inspectors identified an ITAAC finding of unknown safety significance (TBD) and associated violation (VIO) of 10 CFR Part 50 Appendix B, Criterion IX, "Special Processes," regarding inadequate radiographs of Class 1 and 3 components. Specifically, numerous radiographic films of welds in the Unit 2 pressurizer, Unit 2 accumulator tank (ACC) A, Unit 2 core make-up tank (CMT) B, Unit 3 ACC B, and Unit 3 CMT B were found to not meet the quality requirements of ASME Code Section III, Division 1, 1998 Edition including 2000 Addenda. The licensee initiated the following corrective action documents to capture the identified issues: CR-17-30869, CR-17-30963, CR-17-31003, DI 100481162, DI 100483875, and DI 100485005. However, due to the decision to abandon the construction of Units 2 and 3, shortly after this finding was identified, no corrective actions will be pursued nor will the safety significance of the matter be determined. Therefore, this VIO will remain open.

The finding was associated with the Procurement/Fabrication Cornerstone. This performance deficiency was considered more than minor because, if left uncorrected, it represented a condition adverse to quality that rendered the quality of the system, structure or component (SSC) indeterminate, and the performance deficiency would require substantive corrective actions to correct since the welds would need to be reexamined. The inspectors utilized IMC 2519, "Construction Significance Determination Process," to evaluate the finding and determined that it was a violation with unknown safety significance because welds within multiple trains of the reactor coolant system (RCS) and passive core cooling system (PXS) systems are of indeterminate quality until reexamination. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 2 ITAAC 2.1.02.03a and 2.2.03.03a and Unit 3 ITAAC 2.2.03.03a. The acceptance criteria of these ITAAC require that a report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds. This finding is associated with violations of ASME Code Section V which is required by ASME Code Section III. The inspectors did not determine a cross-cutting aspect because the decision to abandon the construction of Units 2 and 3 came before sufficient information was gathered.

Identified By: NRC

Identification Date: 07/31/2017

Significance: Green

Item Type: ITAAC Finding

Green: The inspectors identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion IX, "Special Processes," for South Carolina Electric & Gas Company's (SCE&G) failure to assure that special processes, including welding, were controlled and accomplished using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements. The licensee entered this finding into their corrective action program under condition report (CR) number CR-NND-17-30967 and WEC Corrective Action, Prevention, and Learning (CAPAL) System Discrete Issue (DI) 100484092. Due to the decision to abandon the construction of Units 2 and 3, shortly after this finding was identified, no corrective actions will be pursued at this time, and this NCV will remain open.

The finding was associated with the Procurement/Fabrication Cornerstone. The finding was considered more than minor because the performance deficiency, if left uncorrected, would represent a condition adverse to quality that would render the quality of the systems, structures or components (SSCs) indeterminate and the performance deficiency would require substantive corrective actions to correct. The inspectors utilized IMC 2519, "Construction Significance Determination Process," to evaluate the finding and determined that the finding was of very low safety significance (Green). This was determined because the licensee would have been able to requalify the welding procedures by performing additional impact tests to qualify the procedure instead of removing and replacing the welds. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 2 ITAAC 2.1.02.02a and 2.2.03.02a and Unit 3 ITAAC 2.2.03.02a. The acceptance criterion of this ITAAC requires that the American Society of Mechanical Engineers (ASME) Code Section III design reports exist for the as-built components identified in Table 2.2.3-1 as ASME Code Section III. This finding is associated with violations of ASME Code Section III and would have prevented an accurate design report from existing because the welds were not made using procedures qualified by the requirements of the ASME Code Section III. The inspectors determined that this finding was not related to any of the cross-cutting aspects discussed in IMC 0613, Appendix F, "Construction Cross-Cutting Components and Aspects." (Section 1A01)

[Back to Top](#)

Construction/Installation

[Back to Top](#)

Inspection/Testing

Identified By: NRC

Identification Date: 12/31/2016

Significance: Green

Item Type: ITAAC Finding

Failure to Provide Adequate Guidance to Quality Control Inspectors

The inspectors identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for South Carolina Electric and Gas (licensee), through their contractor, Carolina Energy Services (contractor), failure to provide adequate guidance to quality control inspectors, resulting in an indeterminate quality of the machined ends of the reactor coolant loop piping. The licensee entered this issue into their corrective action program as Condition Report (CR)-NND-16-02095, and the EPC entered the issue into their corrective action program as Discrete Issue (DI) 100428204.

The finding was associated with the Inspection/Testing Cornerstone. The inspectors determined the performance deficiency was more than minor following the guidance in IMC 0613, "Power Reactor Construction Inspection Reports," Appendix E, because it was similar to Example 7, which states, in part, that "Inspectors identified that a licensee's procedure was not adequate. The Performance Deficiency is not minor if the procedure didn't adequately implement technical or quality requirements leaving a quality process or construction activity unacceptable or indeterminate." The inadequate procedure and subsequent inadequate inspection resulted in the quality of the reactor coolant loop piping to be indeterminate and required re-inspection following engineering evaluation and procedural changes.

The finding was evaluated under the construction significance determination process as outlined in IMC 2519, "Construction Significance Determination Process." The inspectors determined the finding was of very low safety significance (Green) because the piping was re-inspected following the procedure changes, and the piping was determined to be satisfactory. The inspectors determined that this finding had a cross-cutting aspect in the area of Human Performance for training, because had the organization ensured a knowledgeable, technically competent workforce, the inspection may have been of sufficient

quality despite the inadequate procedure, or the quality control inspectors could have identified the inadequate procedure. [H.9] (Section 1A05)

[Back to Top](#)

Security Programs

[Back to Top](#)

Operational Programs

[Back to Top](#)