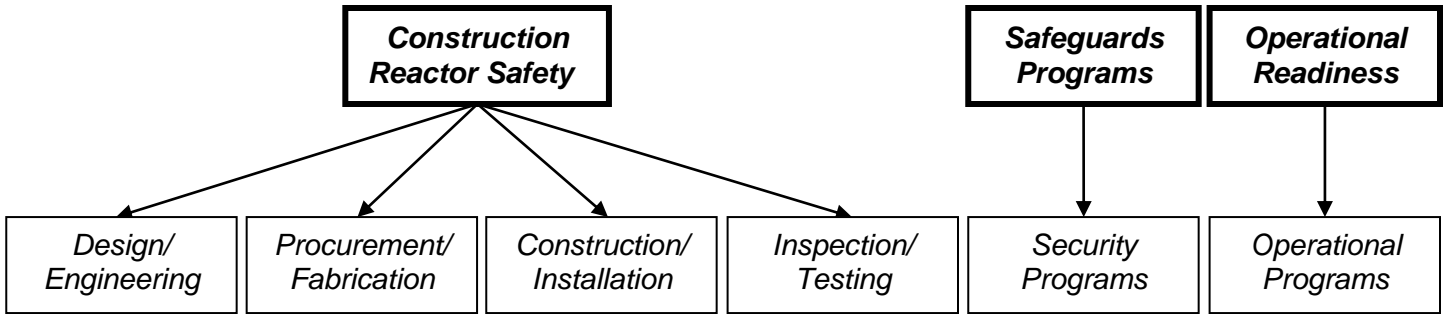


V.C. Summer Unit 3 3Q/2017 Performance Summary

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



Most Significant Inspection Findings

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

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Procurement/Fabrication

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)

Identified By: NRC

Identification Date: 03/31/2017

Significance: Green

Item Type: ITAAC Finding

Failure to generate adequate instructions and procedures to control the fabrication of safety-related parts in an on-site machine shop

Green: The inspectors identified a construction 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 V, "Instructions, Procedures and Drawings", for South Carolina Electric & Gas Company's (SCE&G) failure through their contractor Westinghouse Electric Company (WEC) to generate adequate instructions and procedures to control the fabrication of safety-related parts in an on-site machine shop. The licensee stopped work in the machine shop until the work package was updated with steps to define the scope of work, including inspection hold points. All parts were inspected for compliance before being installed. The licensee entered this finding into their corrective action program as SCE&G CR-NND-17- 30375 and WEC CAPAL System Issue DI 100455172.

The finding was associated with the Procurement/Fabrication Cornerstone. The finding was considered more than minor because there was a substantive failure to establish an adequate procedure or quality oversight function to ensure safety-related parts were being fabricated in accordance with design requirements. The inspectors evaluated the finding in accordance with Appendix A, of IMC 2519, "AP1000 Construction Significance Determination Process." The inspectors determined the finding was of very low safety significance (GREEN) because at the time of discovery, the installation of the rebar connection plate to the electrical penetration assembly had not yet been completed, nor had any EPAs been installed into the shield building wall. This finding was assigned a cross-cutting aspect in accordance with IMC 0613 Appendix F, "Construction Cross-Cutting Areas and Aspects," in the area of Human Performance, Work Management. [H.5] The inspectors determined that the most significant causal factor of the performance deficiency was due to a lack of work controls established in the machine shop.

(Section 1P03)

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Construction/Installation

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Inspection/Testing

Identified By: NRC

Identification Date: 06/30/2017

Significance: Green

Item Type: ITAAC Finding

Failure, through a subcontractor, to ensure that safety-related welds were in compliance with applicable codes and standards.

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 IX, "Control of Special Processes" for South Carolina Electric & Gas's (SCE&G) failure,

through a subcontractor, to ensure that safety-related welds were in compliance with applicable codes and standards. Section 3.8.3.2 of the Updated Final Safety Analysis Report (UFSAR) requires compliance with American Welding Society (AWS) D1.1:2000. The licensee and contractor entered this finding into their corrective action programs as condition report (CR) CR-17-30376 and discrete issue (DI) 100456560.

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 the issue rendered the quality of a safety-related structure indeterminate and required substantive corrective action. Specifically, an inspection of basemat attachment plates for a safety-related structure failed to identify nonconforming fit-up gaps and allowed welding to proceed. The inspectors evaluated the finding using the construction significance determination process and determined the finding was of very low safety significance (Green). Although the finding was associated with a portion of a structure whose structural integrity is required to ensure functionality of the reactor coolant system (RCS) system, the nonconforming welds that were identified by the inspectors would not have affected the ability of the structure to meet its design function. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 3 ITAAC 760 (3.3.00.02a.i.a). The acceptance criteria of this ITAAC requires the as-built containment internal structures, including the critical sections, to conform to the approved design and to withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions. This finding is associated with deviations from design requirements that would not have been reconciled by the licensee as required by the ITAAC. The inspectors screened the finding for a possible construction cross-cutting aspect in accordance with Appendix F, "Construction Cross-Cutting Areas and Aspects," of IMC 0613. This finding has a cross-cutting aspect in the area of Human Performance, because the licensee's contractor failed to utilize the procedures, specifications, and other resources that were available to perform the inspection. [H.12] (Section 1A31)

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