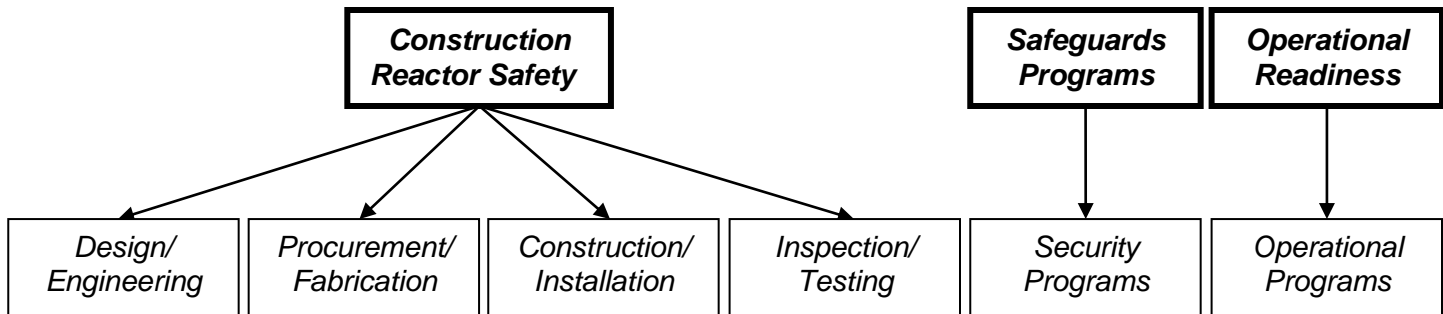


## Vogle Unit 3 2Q/2015 Performance Summary

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



### Most Significant Inspection Findings

2Q/2015	<b><u>G</u></b>	No findings this quarter	<b><u>G</u></b>	No findings this quarter	No findings this quarter	No findings this quarter
1Q/2015	No findings this quarter	<b><u>G</u></b>	<b><u>G</u></b>	No findings this quarter	No findings this quarter	No findings this quarter
4Q/2014	No findings this quarter	No findings this quarter	<b><u>G</u></b>	No findings this quarter	No findings this quarter	No findings this quarter
3Q/2014	<b><u>G</u></b>	No findings this quarter	<b><u>G</u></b>	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](#)

## Design Engineering

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**Identified By:** NRC

**Identification Date:** 06/30/2015

**Significance:** Green

**Item Type:** ITAAC Finding

### **Weld Allowable Stress Calculation Not in Compliance with Current Licensing Basis**

Green. The inspectors identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of Title 10 Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion III, "Design Control." Southern Nuclear Operating Company (SNC), failed through their contractor Westinghouse Electric Corporation (WEC), to correctly translate design basis into specifications, drawings, procedures, and instructions to correctly translate the design basis for welded structural connections into specifications, drawings, procedures, and instructions. The licensee entered this finding in their corrective action program as condition report (CR) 10060139, Corrective Action, Prevention and Learnings (CAPAL) 100224197, and corrective action report (CAR) 2015-1597.

The inspectors determined the performance deficiency was more than minor because it represented a substantive non-conservative error in a design document that defines the technical requirements for structural welds that are important to safety. The inspectors evaluated the finding using the construction significance determination process and determined the finding was of very low safety significance (Green) because the licensee was able to demonstrate with reasonable assurance that the design function of the affected components would not be impaired by the deficiency. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Units 3 and 4 ITAACs 760, 761, 762, and 763. The acceptance criteria of these ITAAC require that reconciliation reports, concluding the "as-built" construction conforms to the approved design, are completed for the areas associated with each ITAAC. This finding is associated with deviations from design requirements that would not have been reconciled by the licensee as required by the ITAAC. The finding had a cross-cutting aspect in the area Human Performance (Conservative Bias) because the licensee's contractor, WEC, failed to use decision making-practices that emphasized prudent choices over those that were simply allowable [H.14].

**Identified By:** NRC

**Identification Date:** 09/30/2014

**Significance:** Green

**Item Type:** ITAAC Finding

### **Failure to Correctly Translate Shear Reinforcement Design Requirements into Design Drawings**

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 III, "Design Control" for the licensee's failure to correctly translate design basis requirements into specifications, drawings, procedures, and instructions. The licensee entered the issue into their corrective action program as condition report 877796, and took immediate actions to revise the drawings and related design calculation to restore compliance with the American Concrete Institute (ACI) 349-01 Code prior to the concrete placement.

The finding was associated with the Design/Engineering cornerstone. The inspectors determined the performance deficiency was more than minor because it represented a substantive non-conservative error in a design document that defines the technical requirements for the shear reinforcement in the innermost west and east steam generator compartments at elevation 80'-0". The inspectors evaluated the finding using the construction significance determination process and determined the finding was of

very low safety significance (Green) because the licensee was able to demonstrate with reasonable assurance that the design function of the applicable structure would not be impaired by the deficiency. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 3 ITAAC 760. The acceptance criteria of this ITAAC requires that a reconciliation report, concluding the “as-built” construction conforms to the approved design, is completed for the areas associated with the ITAAC. This finding is associated with deviations from design requirements that would not have been reconciled by the licensee as required by the ITAAC, because the design drawings contained deviations, which did not meet ACI 349-01, which is a Tier 2\* licensing commitment for Seismic Category I structures. This finding has a cross-cutting aspect in the area of Human Performance, Documentation, because the licensee failed to ensure that procedures, such as construction drawings and work packages, were accurate and adequate to assure construction quality. [H.7]

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## Procurement/Fabrication

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**Identified By:** NRC

**Identification Date:** 03/31/2015

**Significance:** Green

**Item Type:** ITAAC Finding

### Failure to Identify Nonconforming Overlay Plates

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 VII, “Control of Purchased Material, Equipment, and Services,” for the licensee's failure, through their contractor Chicago Bridge and Iron (CB&I), to perform adequate inspections of safety-related overlay plates at supplier facilities and failure to perform adequate examinations of overlay plates upon delivery, to assure the plates conformed to the procurement documents. The licensee entered this issue in their corrective action program as condition report number 899313.

The finding was associated with the Procurement / Fabrication Cornerstone. The inspectors determined the performance deficiency was more than minor because it was associated with the process and material control attributes of the Procurement / Fabrication Cornerstone and adversely affected the cornerstone objective of ensuring that the licensee's programs and processes were adequately developed and implemented for procurement and fabrication activities. The finding was determined to represent an ITAAC finding because it was material to the acceptance criteria of Vogtle Unit 3 ITAAC 763, in that, if left uncorrected, the licensee could not show that the acceptance criteria of this ITAAC was met. The inspectors determined that the failure of these overlay plates to meet AWS D1.1:2000 welding requirements represented a nonconformance with the approved structural design, which if left uncorrected, represented a deviation from the design that would not have been reconciled by the licensee. The inspectors determined that the finding was of very low safety significance (Green) because the licensee demonstrated, with reasonable assurance, that the design function of the applicable structure or system would not have been impaired by the deficiency. This finding had a cross-cutting aspect in the area of Problem Identification and Resolution (Resolution) because the licensee failed to take effective corrective actions to address issues in a timely manner commensurate with their safety significance.

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## Construction/Installation

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**Identified By:** NRC

**Identification Date:** 06/30/2015

**Significance:** Green

**Item Type:** ITAAC Finding

### **Spent Fuel Pool Wall Repair Without an Approved Procedure**

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 V, "Instructions, Procedures, and Drawings," for the licensee's failure, through their contractor Chicago Bridge and Iron (CB&I), to perform repair activities of the VEGP Unit 3 Spent Fuel Pool Wall according to an approved engineering disposition or procedure. The licensee entered this finding in their corrective action program as condition report (CR) 10062982, corrective action report (CAR) 2015-1585, and Nonconformance and Disposition report (N&D) SV3-CA20-GNR-000577. The inspectors determined the performance deficiency was more than minor since it represented a substantive failure to establish an adequate procedure for the mechanical straightening of duplex stainless steel materials. The finding was determined to represent an ITAAC finding because it was material to the acceptance criteria of VEGP Unit 3 ITAAC 763, in that, if left uncorrected, the licensee could not show that the acceptance criteria of this ITAAC was met. The inspectors determined that the failure to repair the spent fuel pool wall according to an approved procedure represented a deviation from the design that would not have been properly reconciled by the licensee.

The inspectors determined that the finding was of very low safety significance (Green) because the licensee developed an adequate repair procedure that would correct the out of tolerance condition, and through supplemental testing, verify that the mechanical properties of the duplex stainless steel material were not adversely affected (i.e., the design function of the applicable structure or system would not have been impaired by the deficiency). This finding had a cross-cutting aspect in the area Human Performance (Resources) because the licensee failed to ensure that procedures were available and adequate to support nuclear safety. Specifically, the licensee had established the requirement that all fabrication processes for duplex stainless steel material are in accordance with appropriate procedures, but failed to develop and obtain engineering approval for mechanical straightening activities (a fabrication process) to ensure that the integrity of the spent fuel pool wall would be maintained [H.1].

**Identified By:** NRC

**Identification Date:** 03/31/2015

**Significance:** Green

**Item Type:** Construction Finding

### **Failure to Perform Routine Quality Control Inspections**

The inspectors identified a construction 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 the licensee's failure to accomplish safety-related, required quality control inspections in accordance with CB&I QC inspection plan FS561-004. The licensee entered the issue in their corrective action program as condition report number 10039935.

The finding was associated with the Construction/Installation Cornerstone. The inspectors determined the performance deficiency was more than minor because the issue represented a substantive failure to implement an adequate quality oversight function, in that these routine welding inspections were not performed by the licensee's contractor for over six months. The finding was determined to be a construction finding because it was not associated with a specific ITAAC. The inspectors determined that the finding was of very low safety significance (Green) because the finding could not be directly associated with a system or structure. This finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence because the licensee failed to ensure that individuals followed specific procedures [H.8].

**Identified By:** NRC  
**Identification Date:** 12/31/2014  
**Significance:** Green  
**Item Type:** ITAAC Finding

**Failure to Establish Qualified Welding Procedures In Accordance With American Welding Society (AWS) D1.1:2000**

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 the licensee's 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 the issue into their corrective action program under condition report numbers 898717, 10008446, and 10009103, and took immediate actions to revise three welding procedure specifications to meet American Welding Society (AWS) D1.1: 2000 and post-qualify them to justify a "use-as-is" disposition for the associated welds in CA01, CA05, and CA20.

The finding was associated with the Construction/Installation cornerstone. The inspectors determined the performance deficiency was more than minor because the issue was similar to the "not minor if" statement of example 6 in IMC 0613, "Power Reactor Construction Inspection Reports," Appendix E, in that the issue was related to a change in an essential variable, and the welding procedure specification (WPS) required re-qualification. The inspectors evaluated the finding using the construction significance determination process and determined the finding was of very low safety significance (Green) because the licensee was able to create additional procedure qualification records to post-qualify the WPSs and disposition the associated welds "use-as-is." The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 3 ITAACs 3.3.00.02a.i.a (760) and 3.3.00.02a.i.d (763). The acceptance criteria of these ITAACs require that a reconciliation report, concluding the as-built structure conforms to the approved design and will withstand the design basis loads without loss of structural integrity is completed for the areas associated with the ITAAC. This finding is associated with deviations from design requirements that would not have been reconciled by the licensee, as required by the ITAAC, because the welds were not welded with qualified welding procedures resulting in a deviation from AWS D1.1:2000 and a failure to meet Section Q1.17, "Welds," of American Institute of Steel Construction (AISC) N690:1994 requirements. This finding has a crosscutting aspect in the area of Human Performance - Resources because the licensee failed to ensure that procedures were adequate to assure construction quality. Specifically, the licensee failed to ensure that welding procedures were qualified in accordance with the Code. [H.1]

**Identified By:** NRC  
**Identification Date:** 09/30/2014  
**Significance:** Green  
**Item Type:** ITAAC Finding

**Failure to Install Structural Reinforcement in Accordance with ACI 349-01 Development Length Requirements**

The inspectors identified an ITAAC finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's

failure to correctly install structural reinforcement in accordance with approved design drawings. The licensee entered this issue into their corrective action program as CR 877795, and removed the nonconforming reinforcement, revised the design drawings, and re-installed the reinforcement according to the revised design.

The finding was associated with the Construction/Installation Cornerstone. The inspectors determined the performance deficiency was more than minor because it represented an adverse condition that rendered the quality of a system, structure, or component unacceptable or indeterminate and required substantive corrective action. The inspectors evaluated the finding using the construction significance determination process and determined the finding was of very low safety significance (Green) because the licensee was able to demonstrate with reasonable assurance that the design function of the applicable structure would not be impaired by the deficiency. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 3 ITAAC 760. The acceptance criteria of this ITAAC requires that a reconciliation report, concluding the “as-built” construction conforms to the approved design, is completed for the areas associated with the ITAAC. This finding is associated with deviations from design requirements that would not have been reconciled by the licensee as required by the ITAAC, because the as-built configuration contained deviations that did not meet ACI 349-01, which is a Tier 2\* licensing commitment for Seismic Category I structures. This finding has a cross-cutting aspect in the area of Human Performance, Field Presence, because the licensee failed to ensure that supervisory and management oversight of work activities, including contractors, was adequate and sufficient enough such that construction quality is supported and assured. [H.2]

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## **Inspection/Testing**

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