



Additional Inspection and Assessment Information

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Identified By: NRC Identification Date: 03/31/2016 Significance: Green Item Type: ITAAC Finding

## Failure to Perform AISC N690-94 Required Weld Nondestructive Examination

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 XV, "Nonconforming Materials, Parts, or Components" for Southern Nuclear Company's (SNC) failure through their contractor Westinghouse Electric Company (WEC) to adequately review and accept nonconforming items in accordance with documented procedures. The licensee entered this finding into their corrective action program as condition reports (CR) 10180672 and 10181738.

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, 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 finding is associated with a portion of a structure (auxiliary building) assigned to the intermediate risk column of the AP1000 construction significance determination matrix and would not reasonably be expected to impact the design function of the auxiliary building. The inspectors determined that the finding represented an ITAAC finding because it was material to the acceptance criteria of VEGP Units 3 and 4 ITAAC 763, in that, if left uncorrected, the licensee may not be 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 review and accept nonconforming items in accordance with documented procedures 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 has a cross-cutting aspect in the Human Performance area because the licensee's contractor, WEC, failed to use decision making-practices that emphasized prudent choices over those that were simply allowable. [H.14].

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Inspection/Testing

Identified By: NRC Identification Date: 12/31/2016 Significance: Green Item Type: ITAAC Finding The inspectors identified an ITAAC finding of very low safety significance (Green) and associated NCV of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify nonconforming welds between seismic category I embed plates and structural modules inside the Vogtle Unit 3 and Unit 4 containment building. The licensee entered this finding into their corrective action program as Condition Reports (CRs) 10308295, 10308213, Corrective Action, Prevention, and Learning (CAPAL) 100436977, SV3-CA01-GNR-000958, SV3-CA02-GNR-000069, and SV4-CA05-GNR-000028.

The inspectors concluded this finding was associated with the Construction Reactor Safety -Inspection/Testing Cornerstone. The finding was considered more-than-minor because the issue was not isolated, similar to example 11 from Appendix E, "Examples of Minor Construction Issues," of IMC 0613, and represented a substantive failure to implement a quality oversight function. Specifically, the inspectors identified at least 33 nonconforming welds that were accepted by at least eight different quality control (QC) inspectors. The inspectors determined the finding was of very low safety significance (Green) because the finding was associated with Row 1 of the AP1000 Construction Significance Determination Matrix and the containment internal structures basemat was associated with the Intermediate Risk of the Systems/Structures Risk Importance Table for AP1000 Construction Significance Determination Process (SDP) Matrix X-Axis. Furthermore, the licensee was able to provide reasonable assurance that the structure would have been able to meet its design function. The inspectors determined the finding represented an ITAAC finding because it was material to the acceptance criteria of Vogtle Unit 3 and Unit 4 ITAAC 760, in that, if left uncorrected, the licensee could not show that the acceptance criteria of these ITAAC were met. The acceptance criteria of Vogtle Unit 3 and Unit 4 ITAAC 760 requires that all deviations between the as-built containment internal structures and the approved design be reconciled (evaluated) such that the as-built structure would withstand the design basis loads without a loss of structural integrity or other safety-related functions. The inspectors determined that the failure of these welds to meet the American Welding Society (AWS) D1.1:2000 and AWS D1.6:1999 visual weld acceptance criteria 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 screened the finding for a possible construction safety focus component (CSFC) aspect in accordance with Appendix F, "Construction Cross-Cutting Areas and Aspects," of IMC 0613, "Power Reactor Construction Inspection Reports." This finding has a cross-cutting aspect in the area of Safety Conscious Work Environment, avoid complacency, because the licensee did not assure that individuals adequately recognized and planned for the possibility of mistakes, latent issues, and inherent risk while expecting successful outcomes, in that multiple QC inspectors failed to consider that the ends of the Complete Joint Penetration (CJP) welds were within the scope of the inspection and even though the front sides of the welds were satisfactory the ends were nonconforming. [H.12]. (Section 1A32)

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