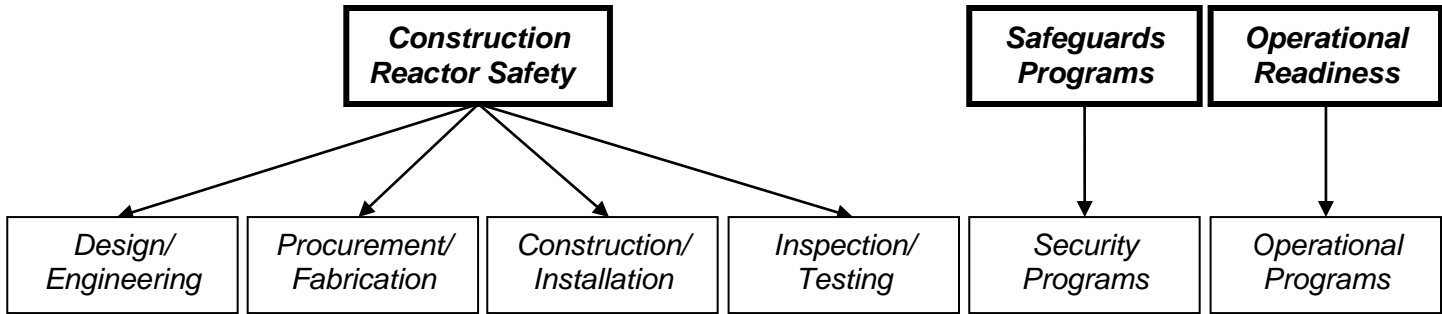


Vogle Unit 3 3Q/2012 Performance Summary

Construction Action Matrix Column:

Licensee Response

Assessment Reports



Most Significant Inspection Findings

| | | | | | | |
|---------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 3Q/2012 | <u>G</u> | <u>G</u> | No findings this quarter | No findings this quarter | No findings this quarter | No findings this quarter |
| 2Q/2012 | <u>G</u> | No findings this quarter | <u>G</u> | No findings this quarter | No findings this quarter | No findings this quarter |
| 1Q/2012 | No findings this quarter | 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

❖ **Assessment Reports/Inspection Plans:**

- [2012Q3](#)
- [2012Q2](#)
- [2012Q1](#)
- [2011Q4](#)

❖ [List of Construction Inspection Reports](#)

❖ [List of Construction Assessment Reports/Inspection Plans](#)

❖ [Violations Identified Prior to Implementation of cROP Pilot](#)

Design Engineering

Identified By: NRC

Identification Date: 9/30/2012

Significance: Green

Item Type: ITAAC Finding

ITAAC Finding for Failure to Translate CA01 and CA20 Design Requirements Into Specifications and Drawings

An ITAAC finding of very low safety significance (Green) and a violation (VIO) of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion III, "Design Control," were identified by the inspectors on and before October 2, 2012, regarding the licensee's failure to assure that regulatory requirements and the design basis for safety-related systems, structures, and components were correctly translated into specifications and instructions associated with the structural submodules for portions of the auxiliary building and containment internal structures. The inspectors identified multiple examples of the licensee's failure to assure that applicable regulatory requirements and the design basis for safety-related systems, structures, and components were correctly translated into specifications, drawings, and instructions.

The inspectors determined this issue was more than minor because, if left uncorrected, the failure to assure that regulatory requirements and the design basis for the auxiliary building and containment internal structures were correctly translated into specifications and instructions could adversely affect the closure of an ITAAC. The finding was associated with the Design/Engineering Cornerstone. The finding was determined to be an ITAAC finding because it was material to the acceptance criteria of Unit 3 ITAACs 763 and 760. Specifically, the acceptance criteria for ITAAC 763 and ITAAC 760 require that a report exists and concludes that the as-built structures in the radiologically controlled area of the auxiliary building, and the as-built containment internal structures, respectively, conform to the approved design. However, the as-built Seismic Category I Structural Submodules CA20-04, CA20-07A, CA20-08A, CA20-29 and CA01-24 did not conform to the approved design. The inspectors evaluated the finding using the construction SDP and determined that the finding was of very low safety significance because it did not impair the design function of the nuclear island auxiliary building or containment internal structures and was assigned to Row 1 of the risk importance table. The inspectors screened the finding for a possible construction safety focus component (CSFC) aspect in accordance with Appendix F, "Construction Safety Focus Components and Aspects," of IMC 0613P, "Power Reactor Construction Inspection Reports - Pilot." The inspectors determined that this finding was not related to any of the CSFC aspects discussed in IMC 0613P.

Identified By: NRC

Identification Date: 5/25/2012

Significance: Green

Item Type: ITAAC Finding

Inadequate Design Control of Software Development

An NRC identified ITAAC finding of very low safety significance (Green) which involved a violation (VIO) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified by the inspectors on May 25, 2012, regarding the licensee's failure to assure that applicable regulatory requirements and the design basis, as defined in § 50.2 and specified in the license application, for the Protection and Safety Monitoring System (PMS) were correctly translated into specifications, drawings, procedures, and instructions. Specifically:

- The verification and validation (V&V) effort did not adequately perform the minimum V&V tasks including software requirements evaluation, interface analysis, criticality analysis, hazard analysis, and risk analysis;

- The V&V of the System Definition (requirements) phase activities was not performed independently;
- Reusable software element documents (RSED) did not follow the prescribed life cycle activities;
- A software hazard analysis of the software requirements specification (SRS) was not performed;
- The SRS was ambiguous, incomplete and was not ranked for importance.

At the time of the exit meeting for this report, the planned corrective actions for these issues were being evaluated by the licensee. These issues were entered into a corrective action program as Condition Report 438475.

The inspectors determined this issue is more than minor because, if left uncorrected, it represents a failure to implement an adequate process and quality oversight function that could render the quality of the construction activity unacceptable or indeterminate, and it could adversely affect the closing of an ITAAC. The finding affected the objective of the Design/Engineering Cornerstone, which is to ensure that licensee's processes are adequately developed and implemented for design control. The finding was determined to be an ITAAC Finding because examples of this finding are material to the acceptance criteria of ITAAC 2.5.2.12, in that; software requirements were not ranked for importance and the V&V team was not independent of the design team. The inspectors evaluated the finding using the construction SDP and determined that, because there were no issues identified that would reasonably be expected to impair the design function of the PMS, the finding screened as Green. The finding was cross-cutting in the area of baseline inspection, work practices, because the licensee failed to ensure supervisory and management oversight of work activities associated with the PMS software development such that the construction quality was supported. [A.4(c)].

Identified By: NRC

Identification Date: 5/7/2012

Significance: Green

Item Type: ITAAC Finding

Failure to Assure Design Services were Accomplished with the Appropriate Design Control Measures

An ITAAC finding of very low safety significance (green) and a VIO of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," were identified by the inspectors on May 7, 2012, regarding the licensee's failure to assure that regulatory requirements and the design basis for systems, structures, and components were correctly translated into specifications and instructions associated with the nuclear island (NI) basemat reinforcement. Specifically, the anchorage of the reinforcement steel inappropriately relied on the excess reinforcement provision of ACI 349-01, Section 12.2.5, to reduce the development length of the bars, and the anchorage of the negative moment reinforcement steel was not developed at the face of the support in a manner consistent with ACI 349-01, Section 13.3.4. At the time of the exit meeting for this report, the planned corrective actions for this issue were being evaluated by the licensee. This issue was entered in to the corrective action program as Condition Report (CR) 442272. The inspectors determined that this issue was more than minor because, if left uncorrected, the failure to assure that regulatory requirements and the design basis for the NI basemat reinforcement were correctly translated into specifications and instructions could adversely affect the closure of an Inspection, Test, Analyses, and Acceptance Criteria (ITAAC). The finding is associated with the Design/Engineering Cornerstone. The finding was determined to be an ITAAC finding because it is material to the acceptance criteria of Unit 3 ITAACs 3.3.00.02a.i.b, 3.3.00.02a.i.c, and 3.3.00.02a.i.d in that the reinforcement design for NI basemat and the affected areas of the shield building, non-radiologically controlled areas of the auxiliary building, and the radiologically controlled areas of the auxiliary building deviated from the design basis without being reconciled by the licensee. The inspectors evaluated the finding using the construction SDP and determined that finding was of very low safety significance because it did not impair the design function of the nuclear island (NI) basemat, shield building, or auxiliary building and was assigned to Row 1 of the risk importance table. This finding was cross-cutting in the area of Baseline Inspection, Decision-Making, Systematic Process, because the licensee did not demonstrate that a

systematic process, reflecting the potential to impact ITAAC closure, was followed to make design changes. [A.1(a)].



Procurement/Fabrication

Identified By: NRC

Identification Date: 9/30/2012

Significance: Green

Item Type: ITAAC Finding

Failure to Assure Safety Related Materials Conformed to the Procurement Documents

An ITAAC finding of very low safety significance (Green) and three examples of a VIO of 10 CFR Part 50, Appendix B, Criterion VII, "Control of Purchased Material, Equipment, and Services," were identified by the inspectors for SNC's failure, through its contractor Stone and Webster (Shaw), to ensure that purchased material conformed to procurement documents. Specifically, the inspectors identified that (1) submodule CA20-04, (2) auxiliary building embed plates, and (3) nuclear island reinforcing steel were accepted but did not conform to the approved design. This issue was entered into the corrective action program as CR 531786.

The finding was determined to be more than minor because the issue, if left uncorrected, represented a failure to establish and implement an adequate program and quality oversight function that could render the quality of construction activities unacceptable or indeterminate. Additionally, this issue was considered to be more than minor because, if left uncorrected, it could adversely affect the closure of an ITAAC. The finding was associated with the Procurement/Fabrication Cornerstone. This finding was determined to be an ITAAC finding because examples 1 and 3 were material to the acceptance criteria of Vogtle Unit 3 ITAACs 763 and 762. Specifically, the acceptance criteria for these ITAAC require that a report exists and concludes that the as-built structures in the non-radiologically controlled and radiologically controlled areas of the auxiliary building, respectively, conform to the approved design. However, as-built submodule CA20-04 and nuclear island reinforcing steel did not conform to the approved design. The inspectors evaluated the finding using the construction SDP and determined this finding was of very low safety significance because it did not impair the design function of the nuclear island basemat or auxiliary building and was assigned to Row 1 of the risk importance table. The inspectors determined that this finding had a cross-cutting aspect in the area of Baseline Inspection, Construction Experience, because the licensee and Shaw did not adequately implement and institutionalize construction experience through changes to construction processes, procedures, materials, and training programs [A.6(b)].



Construction/Installation

Identified By: NRC

Identification Date: 5/7/2012

Significance: Green

Item Type: Technical Finding

Failures to Properly Classify Conditions Adverse to Quality

The inspectors identified a Green technical finding and cited violation (NOV) of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, with five examples of the licensee's failure to adequately identify conditions adverse to quality (CAQ) due to inadequate evaluation and classification attributes. The

licensee issued Condition Report (CR) 441941 to address this issue and to review the classification of the five identified examples and other corrective action documents for inappropriate thresholds.

This performance deficiency had greater than minor safety significance because it identified issues that, if left uncorrected, represented failures to implement an adequate program that could render the quality of the construction activity unacceptable or indeterminate. The finding was a technical finding associated with the construction/installation cornerstone and was evaluated under the construction significance determination process as outlined in IMC 2519P Appendix A. This finding is of very low safety significance (Green) because none of the examples impaired the design function of a system or structure listed in the construction significance determination process risk importance table. This finding was directly related to the construction cross cutting area of baseline inspection and the Corrective Action Program component because the licensee's suppliers failed to adequately evaluate and classify conditions as adverse to quality due to an inappropriately high threshold for classifying conditions adverse to quality. [A.5(c)].

Identified By: NRC

Identification Date: 5/7/2012

Significance: Green

Item Type: Technical Finding

Failure to Correct a Condition Adverse to Quality

The inspectors identified a Green technical finding and cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, for a failure to correct a CAQ. The licensee initiated CR 441949 to document this finding in their corrective action program, and to evaluate the extent of the condition and the areas where corrective action may be needed.

This performance deficiency had greater than minor safety significance because it involved the closure of three corrective action reports that all identified a potential adverse trend (a potential CAQ or significant CAQ) without an evaluation or justification for closure and without any corrective action. The finding was a technical finding associated with the construction/installation cornerstone and was evaluated under the construction significance determination process as outlined in IMC 2519P Appendix A. This finding is of very low safety significance (Green) because the identified condition did not impair the design function of a system or structure listed in the construction significance determination process risk importance table. This finding was directly related to the construction cross cutting area of baseline inspection and the corrective action program component because the licensee's supplier failed to adequately evaluate and correct conditions adverse to quality. [A.5(c)].

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Inspection/Testing

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