V.C. Summer Unit 3 Findings

Design Engineering

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

Failure to Correctly Translate ACI 349-01 Development Length Requirements into Design Drawings

The inspectors identified an ITAAC finding of very low safety significance (Green) and associated non-cited violation (NCV) of 10 Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion III, “Design Control” for the licensee's failure, through their contractor Westinghouse, to correctly translate design basis requirements into specifications, drawings, procedures, and instructions. Specifically, the inspectors identified that the licensee installed safety-related reinforcing steel in the VC Summer Unit 3 containment internal structures basemat that was not compliant with the design basis requirements established by American Concrete Institute (ACI), 349-01, “Code Requirements for Nuclear Safety Related Concrete Structures;” and design calculation APP-1100-CCC-003, “Design Calculation, Containment Mass Concrete Reinforcement, Elevation 66’-6” to 71’-6”, Rev. 0, in that hooked bars with extended tails were installed at an embedment depth less than that required for a standard hook. The licensee entered the issue in their corrective action program as CR-NND-14-01659.

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 defined the technical requirements for the Vertical Reinforcement inside of the containment vessel bottom head. 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 (3.3.00.02a.i.a). 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 WEC issued for construction 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 Baseline Inspection, Problem Identification and Resolution, because the licensee failed to implement construction experience to ensure construction quality. [P.5]

Procurement/Fabrication

Identified By: NRC
Identification Date: 09/30/2012
Significance: Green
Item Type: ITAAC Finding

Failure to Assure Safety Related Materials Conformed to the Procurement Documents

The inspectors identified a Green construction finding and cited violation of 10 CFR 50, Appendix B, Criterion VII, “Control of Purchased Material, Equipment, and Services,” for the licensee’s failure to assure that purchased material and equipment (embedded plates), purchased through contractors and subcontractors, conformed to procurement documents. The licensee entered this issue into their

corrective action programs as VCS-ND-12-0419 and CR 0-L-2012-0583 to evaluate the issue and to develop and implement corrective actions to address the violation.

The performance deficiency was considered more than minor because, if left uncorrected, it 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. The finding was associated with the procurement/fabrication cornerstone and was evaluated under the construction significance determination process as outlined in IMC 2519P, Appendix A. The inspectors determined the finding was of very low safety significance (Green) because the finding: (1) was associated with a structure (basemat) in the intermediate risk column of the risk importance table; and (2) impaired a portion of the structures design function. The inspectors determined that this finding had a cross-cutting aspect in the area of Baseline Inspection, Work Control (A.4.c), because the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that construction quality is supported.

Construction/Installation

Identified By: NRC
Identification Date: 06/30/2013
Significance: Green
Item Type: Construction Finding

Failure to Document and Process a Nonconformance

The inspectors identified a technical finding and non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, for the licensee's failure to identify, evaluate, and correct nonconforming steel reinforcing bars in accordance with documented procedures. The licensee initiated condition report (CR) NND-13-00448 to document this finding in their corrective action program.

This performance deficiency had a greater than minor safety significance because it was similar to the "not minor if" statement of construction issue example 19 in Appendix E to IMC 0613P. 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 was of very low safety significance (Green) because it was determined to be a construction finding and was dispositioned use-as-is. This finding was associated with the Procedural Compliance aspect in the Work Practices component of the construction cross-cutting area of Baseline Inspection.

Identified By: NRC
Identification Date: 06/30/2013
Significance: Green
Item Type: Construction Finding

Failure to correct conditions adverse to quality

The inspectors identified a technical finding and NCV of 10 CFR 50, Appendix B, Criterion XVI for the licensee's failure to ensure that conditions adverse to quality were corrected. The licensee initiated CR NND-13-00575 and nonconformance and disposition (N&D) report VS2-CE50-GNR-000016 to document this finding in their corrective action program.

This performance deficiency had greater than minor safety significance because the uncorrected conditions could render the quality of construction activities and installed items 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 was 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 associated with the Human Error Prevention Techniques aspect in the Work Practices component of the construction cross cutting area of Baseline Inspection.

Identified By: NRC
Identification Date: 12/31/2012
Significance: Green
Item Type: Technical Finding

Failure to adequately implement procedure guidance for evaluating, classifying, and correcting conditions adverse to quality

The inspectors identified a technical finding and cited violation (VIO) of 10 CFR Part 50, Appendix B, Criterion V, for the failure to properly categorize Shaw CAR 2010-12-08-971 as a significant condition adverse to quality.

This performance deficiency had greater than minor safety significance because the uncorrected conditions could render the quality of construction activities 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 was 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 not associated with a construction cross cutting aspect.

Identified By: NRC
Identification Date: 12/31/2012
Significance: Green
Item Type: Technical Finding

Failure to adequately evaluate and correct conditions adverse to quality

The inspectors identified a technical finding and cited violation (VIO) of 10 CFR Part 50, Appendix B, Criterion XVI, for three examples of the licensee's failure to promptly correct conditions adverse to quality in accordance with regulatory requirements and applicable quality standards.

This performance deficiency had greater than minor safety significance because the uncorrected conditions could render the quality of construction activities 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 was 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 engineering, procurement, and construction consortium failed to adequately evaluate and correct conditions adverse to quality.

Identified By: NRC
Identification Date: 09/30/2012
Significance: Green
Item Type: Construction Finding

Failure to Transfer Containment Coating Testing Requirements into Specifications

The inspectors identified a Green construction finding and cited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control,” for the failure to ensure that an element of the design basis (methyl ethyl ketone rub test), as specified in the license application, was correctly translated into specifications. This issue was entered into the corrective action program as IR-12-216-M010 and CR-2012-00499 to evaluate the issue and to develop and implement corrective actions to address the violation.

This performance deficiency had greater than minor safety significance because the failure to perform the rub test, if left uncorrected, represented a failure to establish, implement or maintain an adequate process, program, procedure, or quality oversight function that could render the quality of the construction activity unacceptable or indeterminate. Specifically, the rub test, if left unperformed, represented a failure to ensure that the coating would be adequately cured and that the coating would perform its intended safety function. The finding was associated with the construction/installation cornerstone and was evaluated under the construction significance determination process as outlined in IMC 2519P, Appendix A. The inspectors determined the finding was of very low safety significance (Green) because the finding was associated with a system in the low risk column of the risk importance table and was not a repetitive significant condition adverse to quality. The inspectors determined that this finding had a cross-cutting aspect in the area of Baseline Inspection, Resources (A.2.b), because the licensee did not ensure that procedures were available and adequate to assure construction quality.

Identified By: NRC
Identification Date: 06/30/2012
Significance: Green
Item Type: Programmatic Finding

Failure to Establish an Adequate Authentication Process for Records in Electronic Media

The inspectors identified a Green programmatic finding and cited violation of 10 CFR Part 50, Appendix B, Criterion XVII, Quality Assurance Records, for failing to adequately assure that records established in electronic media were sufficient to furnish evidence of activities affecting quality. The licensee issued Condition Report 2012-0283 to address this issue and began a complete review of quality assurance records that have been converted into electronic format.

This performance deficiency had greater than minor safety significance because the failure to adequately authenticate the content of quality assurance records, if uncorrected, could lead to loss of information that could render the quality of a construction activity unacceptable or indeterminate. As a result, the deficiency could preclude the licensee from being able to take appropriate action on safety-significant matters. The finding was associated with the construction/installation cornerstone and was evaluated under the construction significance determination process as outlined in Inspection Manual Chapter 2519P Appendix A. The finding was a non-technical programmatic finding associated with the quality assurance records program verification of a critical attribute related to accurately recording activities affecting quality. This finding is of very low safety significance (Green) because it is not a repetitive programmatic finding. The inspectors did not identify a cross-cutting aspect associated with this finding.

Inspection/Testing

Identified By: NRC
Identification Date: 06/30/2016
Significance: Green
Item Type: ITAAC Finding

Excessive Reinforcement on Unit 3 CA20 Welds

The inspectors identified an ITAAC finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion X, "Inspection," for SCE&G's failure, through their contractor WEC, to identify nonconforming welds on a safety-related structure as required per quality control inspection

plans. Section 3.8.3.2 of the Updated Final Safety Analysis Report (UFSAR) requires compliance with American Welding Society (AWS) D1.1:2000. The inspections were required by a contractor's quality control (QC) inspection plan F-S561-007, "AWS D1.1 – Visual Weld Inspection - Carbon Steel." The licensee entered this issue into their corrective action program as CR-NND-16-00854.

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 Rector Construction Inspection Reports," Appendix E, because the issue represented a substantive failure to implement an adequate quality oversight function. Specifically, a visual welding inspection of a safety-related structure failed to identify nonconforming welds. The inspectors evaluated the finding using the construction significance determination process and determined the finding was of very low safety significance (Green) because there was reasonable assurance that the CA20 module would have been able 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 763 (3.3.00.02a.i.d). The acceptance criteria of this ITAAC requires the as-built structures in the radiologically controlled area of the auxiliary building, including the critical sections, conform to the approved design and 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 Components 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 identify nonconforming welds when performing an inspection using a contractor's QC inspection plan F-S561-007, "AWS D1.1 – Visual Weld Inspection - Carbon Steel." [H.8]

Security Programs

Operational Programs