

## **SMCI** Division

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August 18, 2015

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Mechanical Vendor Inspection Branch
Division of Construction Inspection and Operational Programs
Office of New Reactors
Washington, DC 20555-001

Subject:

Reply to Notice of Nonconformance

NRC Inspection Report No. 99901439/2015-201

Reference:

Letter from Edward Roach (NRC) to Dan Grannan (MetalTek International), U.S.

Nuclear Regulatory Commission Inspection Report No. 99901439/2015-201

and Notice of Nonconformance, dated July 24, 2015.

Dear Mr. Roach,

In response to the NRC Inspection Report and associated Notice of Nonconformances (NON), MetalTek International SMCI Division (SMCI) provides the enclosed response. This Response addresses nonconformances identified in NRC Inspection Report No. 99901439/2015-201 related to and Criterion III (Design Control) and Criterion IX (Control of Special Processes) of the SMCI Quality program respectively.

Pursuant to the NRCs instructions specified in the Notice of Nonconformance, the reply addresses for each of the NONs, identified as 99901439/2015-201-01 and 99901439/2015-201-02: 1) the reason for the noncompliance; 2) the corrective steps that have been taken and the results achieved, 3) the corrective steps that will be taken to avoid future noncompliance; and 4) the date when the corrective actions will be completed.

SMCI understands the feedback received from the NRC during the inspection and in the published Inspection Report. We take that feedback very seriously; we recognize that the utmost attention to this feedback is the necessary response and have either completed or initiated actions to remedy the specific findings provided to avoid further noncompliance.

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Sincerely,

**Quality Director** 

MetalTek International, SMCI Division

Dave Masterson

General Manager

MetalTek International, SMCI Division

Enclosure: SMCI Reply to Notice of Nonconformance 99901439/2015-201-01 AND

99901439/2015-201-02



# SMCI REPLY TO NOTICE OF NONCONFORMANCE 99901439/2014-201-01 AND 99901439/2014-201-02

This is the SMCI Reply to the Notice of Nonconformance identified in NRC Inspection report No. 99901439/2015-201, dated July 24, 2015.

## NONCONFORMANCE 99901439/2015-201-01

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Specialty Maintenance and Construction, Inc. (SMCI) facility in Lakeland, FL, on June 8, 2015, through June 12, 2015, certain activities were not conducted in accordance with NRC requirements which were contractually imposed on SMCI by its customers or NRC licensees:

A. Criterion III, "Design Control," of Appendix B "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Processing Plants," to Title to 10 of the Code of Federal Regulations (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that "Measures shall be established to assure that applicable regulatory requirements and the design basis, as defined in 10 CFR 50.2, and as specified in the license application, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions."

Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50, states, in part, that "Measures shall be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

Section 3.8.3.6.2, "Nondestructive Examination," of Revision 18 of the AP1000 design certification document, which is incorporated by reference in the Combined License for Vogtle Electric Generating Plant (VEGP), Units 3 and 4 and Virgil C. (VC) Summer Generating Station, Units 2 and 3, states in part, that "Welds are visually examined for 100 percent of their length. Full penetration welds are inspected by ultrasonic or radiographic examination for 10 percent of their length. Partial penetration welds are inspected by magnetic particle or liquid penetrant examination for 10 percent of their length." In addition, Westinghouse Electric Company (WEC) design specification drawings, APP-GW-S9-104, "AP1000 Structural Modules General Notes - V," Revision 4, dated October 6, 2014, and APP-GW-S9-105, "AP1000 Structural Modules General Notes - VI," Revision 4, dated October 14, 2014, incorporate these requirements, and require a visual examination (VT), and magnetic particle (MT) or liquid penetrant (PT) examinations on both the reinforcing fillet weld and the partial joint penetration (PJP).

Contrary to the above, as of June 12, 2015, SMCI failed to transfer all the pertinent design requirements into the applicable instructions and failed to inspect welds in accordance with the applicable travelers and design specification drawings. Specifically;



- SMCI did not adequately incorporate several general notes on NDE requirements from WEC design specifications drawings into all the applicable travelers. These general notes would require VT, and MT or PT examinations of both the reinforcing fillet weld and the PJP. By not correctly transferring nondestructive examination requirements to the SMCI travelers, partial penetration welds did not receive the required surface examinations required by the WEC design drawings.
- 2. SMCI only performed VT and MT examination of the reinforcing fillet weld that is applied over the PJP, and did not perform a VT and MT examination of the PJP as required by several general notes from design specification drawing APP-GW-S9-105. Not inspecting the PJP welds leaves the quality of welds to be indeterminate, and therefore affects how these welds would meet their design stress requirements and would perform their intended safety function.

This issue has been identified as Nonconformance 99901439/2015-201-01.

## 1. The Reason for the Noncompliance

Corrective Action Report (CAR) 2015-321 was initiated to document this issue.

It was the determination of SMCI, after discussion and evaluation with Westinghouse, that SMCI was in compliance with the requirements set forth for the inspection of fillet reinforced PJP welds. A review of E&DCR APP-CA20-GEF-1305 shows that SMCI's current practices meet those set forth by the designer, Westinghouse.

## 2. Corrective Steps That Have Been Taken and Results Achieved

A review of all affected travelers shows that they are concise and congruent with the Westinghouse interpretation.

## 3. Corrective Steps That Will Be Taken to Avoid Noncompliance

No additional actions are planned by SMCI.

#### 4. Date When Corrective Actions Will Be Completed

All actions are complete at this time.



## NONCONFORMANCE 99901439/2014-201-02

B. Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50, states, in part, that "Measures shall be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements."

SMCI procedure QP-9.0, "Weld Filler Metal and Consumable Control," Revision 2, dated August 16, 2013, provides several quality record requirements to document the use of weld wire, weld filler material, and other weld consumables.

Contrary to the above, as of June 12, 2015, SMCI failed to control welding consumable filler metal in accordance with applicable procedures and criteria. Specifically,

- SMCI did not record on form WCIL-001 the weld filler metal that was issued for the time period of June 28, 2014, through July 11, 2014, as required by QP-9.0, section 5.3.8. Because there are no entries on form WCIL-001 for the dates above, there is no objective evidence that the correct weld filler metal was used in production and there was adequate control of the welding filler metal for this time period.
- 2. During a review of traveler 926-CA01-00774, the NRC inspection team noted that a welder used weld filler metal to weld the beam seat that was not the weld filler metal he was issued and required to use. The use of the correct weld filler metal for welding the beam seat was not adequately controlled as required by QP-9.0, sections 5.3.8, 5.5.2, and 5.5.4.

The NRC inspection team noted that welders were not issued any weld filler metal for (a) welding on embed plates on October 8, 2014, for traveler 926-CA01-01156 for the CA-01 module for VEGP Unit 3, and (b) welding on embed plates on October 8, 2014, for traveler 926-CA01-01162 for the CA-01 module for VC Summer Generating Station Unit 2. Weld filler metal issued to the welders for this work was not be recorded in form WCIL-001 as required by QP-9.0, sections 5.3.8, 5.5.2, and 5.5.4.

This issue has been identified as Nonconformance 99901439/2015-201-02.



## 1. The Reason for the Nonconformance

Corrective Action Report (CAR) 2015-332 was initiated to document this issue.

The apparent cause for this nonconformance has been determined to be the procedure does not provide a retention time for the Weld Consumable Issuance Logs nor are they classified as Lifetime of Non-Permanent records.

The Weld wire issue logs (WCIL-001) were not intended to document, for fabrication traceability purposes, the usage of weld filler metal or their location of use, this is contained in the weld traveler. At no time was the traceability of the weld filler material lost or incorrect material documented in a component.

A welder may be issued weld filler material and weld on a given date. Upon completion of the welding it may be determined that the weld requires some grinding or feathering to meet surface profile requirements and the additional work may not be completed until a day or possibly two later. This scenario would explain the difference in the date of issue of the weld filler material and the date the weld was signed off as complete. The welder would not sign off in the traveler for that welding being complete until the date he completed this work and turned it over to QC for inspection. This would lead to the issuance log dates not matching up to the traveler dates.

## 2. Corrective Steps That Have Been Taken and Results Achieved

During the period the Inspection Team was at SMCI, a search was conducted for the missing weld wire issue logs and all logs except for those dated 7-9<sup>th</sup> of July were located.

## 3. Corrective Steps That Will Be Taken to Avoid Noncompliance

Revise QP 9.0 to clarify the retention period for the Weld Consumable Issuance Logs.

## 4. Date When Corrective Actions Will Be Completed

Procedure is to be revised and implemented by October 5, 2015.