

December 15, 2014

EA-14-018
EA-14-019
EA-14-142

Mr. Luke Scorsone, Executive Vice President
Group President Fabrication Services
Chicago Bridge & Iron Company
4171 Essen Lane
Baton Rouge, LA 70809

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION OFFICE OF INVESTIGATIONS
REPORT NOS. 2-2013-001, 2-2013-023 AND 2-2013-033; EXERCISE OF
DISCRETION

Dear Mr. Scorsone:

This letter refers to three investigations conducted by the U.S. Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) related to work activities at the Chicago Bridge & Iron Company, Lake Charles (CB&I-LC), Louisiana facility, formerly known as Shaw Modular Solutions (SMS). The OI investigations were initiated to determine whether willful noncompliance with requirements contributed to several performance deficiencies and work quality issues that occurred during the fabrication of safety related modules for the Vogtle Electric Generating Plant (Vogtle) and Virgil C. Summer Nuclear Station (V.C. Summer) new reactor construction sites. Based on its review of the OI reports from these investigations, the NRC has identified two apparent violations of NRC requirements and three nonconformances with NRC regulations imposed on you through contract requirements.

1. OI investigation 2-2013-001 was initiated to determine whether in April 2012: (1) several SMS foremen willfully violated the assembly shop traveler procedure (SMS Quality Assurance Manual (QAM) Procedure QP-PC-06) by signing weld logs on the behalf of the welders, and (2) SMS managers willfully instructed foremen to sign for welders, contrary to SMS procedure QP-PC-06 requirements. The NRC completed its investigation on December 10, 2013.

Based on the results of the investigation, the NRC concluded that one SMS foreman deliberately signed weld logs on behalf of welders, knowing that this was contrary to SMS procedure QP-PC-06. Therefore, the NRC has identified an apparent violation of Title 10 *Code of Federal Regulations* (10 CFR) 52.4, "Deliberate Misconduct," since these actions, had they not been detected and corrected, would have caused a licensee to be in violation of Criterion V, "Instructions, Procedures, and Drawings," of Appendix B to 10 CFR Part 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." Specifically, there would not have been reasonable assurance that activities affecting quality would have been accomplished in accordance with required instructions, procedures, and drawings.

2. OI investigation 2-2013-023 was initiated to determine: (1) if welds were willfully performed on the CA20 module in a position for which the welder was not qualified, and (2) if two foremen, and the welder, willfully provided inaccurate information to a Quality Control (QC) inspector regarding how these welds were performed in February 2013. The NRC completed its investigation on January 6, 2014.

Based on the results of the investigation, the NRC concluded that at least one foreman deliberately used undue pressure and influence on a welder to provide inaccurate information to a QC inspector by stating that he had conducted all welding on module CA20 in the flat position, a position for which he was qualified. The supervisors knew that some of the welds had been performed in the overhead position, a position for which the welder was not qualified, when they applied the undue pressure and influence on the welder to provide the inaccurate information to the QC inspector. Therefore, the NRC staff has identified an apparent violation of 10 CFR 52.4. The deliberate actions on the part of at least one foreman would have caused, if not detected, a licensee to be in violation of Criterion V of Appendix B to 10 CFR Part 50 in that there would not have been reasonable assurance that activities affecting quality would be accomplished in accordance with required instructions, procedures, or drawings.

In addition, the NRC identified a nonconformance of Criterion V of Appendix B to 10 CFR Part 50 when a foreman failed to ensure that a qualified welder was used to perform these welds on the CA20 module. With the welder qualification records available to the foreman, and following a pre-job brief, the welder inappropriately performed these stud welds in the overhead position, when he was only qualified to perform these welds in the flat position.

The NRC staff also notes that the individual QC inspector exhibited a strong nuclear safety culture by conducting a thorough record review and maintaining a persistent questioning attitude during his follow up of a suspected deficient condition with the welder and foremen. These efforts resulted in the prompt identification and documentation of these welding process deficiencies by CB&I's QC staff.

3. OI investigation 2-2013-033 was initiated to determine whether SMS personnel willfully failed to comply with requirements during an incident that involved dropping sub-module CA 20-19 during a critical lift on July 27, 2012. In particular, this NRC investigation focused on whether certain members of the Rigging Department management willfully: (1) failed to follow procedural requirements by conducting this critical lift without an adequate lift plan, and (2) failed to initiate a condition or nonconformance report documenting the dropped module to ensure this deficient condition was promptly identified and adequate corrective actions were taken. The NRC completed its investigation on July 29, 2014.

Based on the results of the investigation, two nonconformances of NRC requirements were identified. The NRC concluded that certain SMS Rigging Department managers willfully failed to implement quality assurance requirements of Appendix B to 10 CFR Part 50 as imposed by your customers. The willful actions by certain SMS managers during the lift and subsequent drop of sub-module CA 20-19 on July 27, 2012:

- A. Resulted from the failure to follow procedures for conducting the lift of safety-related sub-module CA 20-19 as required by Criterion V of Appendix B to 10 CFR Part 50.

- B. Resulted in the failure to initiate a condition or nonconformance report to ensure the prompt identification of the dropped sub-module and that adequate corrective actions were taken in a timely manner as required by Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50.

Willful violations of NRC requirements are of significant regulatory concern because the NRC's regulatory program is based on licensees and the employees of licensees acting with integrity and communicating with candor. Normally, the NRC would pursue escalated enforcement, including possible civil penalties, through the issuance of notices of violation (NOVs) for apparent violations of its deliberate misconduct rules, and notices of nonconformance (NONs) for other failures to meet NRC requirements by a vendor or supplier to an NRC licensee.

As part of its deliberations and consistent with the philosophy of the Enforcement Policy, Section 3.3, "Violations Identified Because of Previous Enforcement Action," the NRC considered whether enforcement discretion would be appropriate for the apparent violations and nonconformances described above. Section 3.3 states that enforcement discretion may be considered for violations with similar root causes as violations for which enforcement action was previously taken. On September 25, 2014, the NRC issued a Confirmatory Order (CO) to enhance actions that CB&I had previously agreed to take to further address issues relating to willful violations of NRC requirements and deliberate misconduct (EA-12-189 and EA-13-196). The violations and nonconformances discussed in this letter occurred prior to or during implementation of the corrective actions specified in the September 2014 CO.

Based on its review, the NRC has concluded that the root causes for the willful nonconformances with NRC requirements and the apparent violations involving deliberate misconduct identified as a result of the three OI investigations described above are similar to the root causes of the violations that led to the issuance of the September 2014 CO. Therefore, I have been authorized, after consultation with the Director, Office of Enforcement, and the Director, Office of New Reactors, to exercise enforcement discretion in accordance with Section 3.3 of the Enforcement Policy and refrain from issuing enforcement for these violations and nonconformances.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible at <http://www.nrc.gov/reading-rm/adams.html>.

L. Scorsone

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If you have any questions concerning this matter, please contact Ms. Kerri Kavanagh, Chief, Quality Assurance Vendor Inspection Branch at (301) 415-3743 or Mr. Timothy Frye, Senior Enforcement Coordinator at (301) 415-3900.

Sincerely,

/RA/

Michael Cheok, Director
Division of Construction Inspection and
Operational Programs,
Office of New Reactors

Docket No. 99901425

L. Scorsone

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Sincerely,

Michael Cheek, Director
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Docket No. 99901425

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As stated

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NRO-002

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