

February 20, 2014

EA-13-196

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

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION'S OFFICE OF  
INVESTIGATIONS REPORT NO. 2-2011-036

Dear Mr. Scorsone:

This letter refers to an investigation conducted by the U.S. Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) related to work activities at the Chicago Bridge & Iron (CB&I) Lake Charles, Louisiana facility, formerly known as Shaw Modular Systems (SMS). The OI investigation was initiated on April 20, 2011, to determine whether a former SMS employee willfully took welder qualification tests on behalf of another SMS employee; whether a former SMS employee acted willfully by allowing another person to take welder qualification tests on his behalf; and whether SMS/CB&I personnel and management willfully falsified welder qualifications test results. The NRC completed its investigation on August 7, 2013. A Factual Summary of the OI report is enclosed (Enclosure 1).

Based on the results of this investigation, two apparent violations of Title 10 of the *Code of Federal Regulations* (10 CFR) 52.4 were identified and are being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

The apparent violations are summarized as follows:

1. 10 CFR 52.4(c)(1) states, in part, that an employee of a contractor for any licensee may not engage in deliberate misconduct that causes or would have caused, if not detected, a licensee to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any license issued by the Commission. Criterion V, "Instructions, Procedures, and Drawings," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," states, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. 10 CFR Part 50, Appendix B, Criterion IX, "Control of Special Processes," 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." SMS

Quality Procedure QP-PC-04, "Welder/Operator Qualifications – AWS," establishes the responsibilities, methods, testing, and documentation requirements for conducting welder qualification testing in accordance with applicable codes, standards and specifications.

Contrary to the above, on April 26, 2010, three SMS/CB&I employees engaged in deliberate misconduct that caused or would have caused, if not detected, a licensee to be in violation of a regulation or condition of a license issued by the Commission. Specifically, a welder completed welder qualification tests per Quality Procedure QP-PC-04 on behalf of another employee. These falsified welder qualification tests were conducted with the knowledge of the weld test supervisor. The deliberate actions on the part of these three employees 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, these deliberate actions caused or would have caused, if not detected, a licensee to be in violation of Criterion IX of Appendix B to 10 CFR Part 50, as there was not reasonable assurance that safety-related welding processes would be controlled and accomplished by qualified personnel in accordance with applicable codes and standards.

2. 10 CFR 52.4(c)(2) states, in part, that an employee of a contractor for any licensee may not deliberately submit to the NRC, a licensee, or licensee's contractor information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC. 10 CFR Part 50, Appendix B, Criterion IX, "Control of Special Processes," 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."

Contrary to the above, on April 26, 2010, a weld test supervisor deliberately submitted to SMS, a contractor of a licensee, information that he knew to be inaccurate in some respect material to the NRC when he signed and submitted to SMS two forms, SMS QMS Procedure Form WPS 1-1-3-S4G(W)-1 and SMS QMS Procedure 1-1-3-S3G(W)-2 that falsely documented the completion of a welder qualification tests. These deliberate actions on the part of the test supervisor are material to the NRC since there would not have been reasonable assurance that safety-related welding processes were controlled and accomplished by qualified personnel in accordance with applicable codes and standards as required by Criterion IX of Appendix B to 10 CFR Part 50.

Since the NRC has not made a final determination in this matter, a Notice of Violation is not being issued at this time. In addition, please be advised that the number and characterization of apparent violations described herein may change as a result of further NRC review. Before the NRC makes its enforcement decision, we are providing you an opportunity to: (1) respond to these two apparent violation(s) within 30 days of the date of this letter, (2) request a Pre-decisional Enforcement Conference (PEC), or (3) request Alternative Dispute Resolution (ADR). If a PEC or ADR mediation session is held, it will be closed to public observation because the NRC's preliminary findings are based on an NRC OI report that has not been publicly disclosed. However, the time and date of the PEC or ADR will be publicly announced. Please contact Ms. Kerri Kavanagh, Chief, Quality Assurance Vendor Inspection Branch at (301) 415-3743 or Mr. Timothy Frye, Enforcement Coordinator at (301) 415-3900 within 10 days of the date of this

letter to inform us of your choice for response. A PEC should be held within 30 days and an ADR session within 45 days of the date of this letter.

If you choose to provide a written response, it should be clearly marked as a "Response to NRC Investigation Report No. 2-2011-036; EA-13-196" and should include for each apparent violation: (1) the reason for the apparent violation or, if contested, the basis for disputing the apparent violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a PEC.

If you choose to request a PEC, the conference will afford you the opportunity to provide your perspective on these matters and any other information that you believe the NRC should take into consideration before making an enforcement decision. The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference would be conducted to obtain information to assist the NRC in making an enforcement decision. The topics discussed during the conference may include information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned.

In lieu of a written response or PEC, you may also request Alternative Dispute Resolution (ADR) with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a third party neutral. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's program can be obtained at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.

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, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

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, Enforcement Coordinator at (301) 415-3900.

L. Scorsone

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Sincerely,

Michael C. Cheok, Director /RA/  
Division of Construction, Inspection,  
and Operational Programs  
Office of New Reactors

Docket No. 99901425

Enclosures:

1. Factual summary of OI Investigation Report  
No. 2-2011-036
2. Brochure NUREG/BR-0317, "The Nuclear Regulatory  
Commission's Post-Investigation ADR Program:  
Alternative Dispute Resolution Administered by  
Cornell University's Institute on Conflict Resolution"

## Factual Summary of NRC Office of Investigations Case No. 2-2011-036

On March 21, 2011, Shaw Modular Solutions (SMS) reported to the NRC that welders may have welded safety-related components at its Lake Charles, Louisiana, facility using welding procedures with incorrect settings. In addition, welders may have been asked (or strongly encouraged) to backdate training certifications to weld procedures that were revised without identifying what was changed and without adding revision numbers. On June 9, 2011, SMS also self-reported that a welder may have taken welder qualifications tests for another employee, and that signatures on testing qualifications documents may have not been their own. As a result, the NRC Office of Investigations (OI) conducted an investigation to determine whether or not: (1) SMS (now Chicago Bridge and Iron, or CB&I) managers willfully instructed welders to weld safety-related sub-modules using a Welding Procedure Specification (WPS) with incorrect settings, (2) welders backdated training certifications to weld procedures, and (3) a welder took welder qualification tests for another SMS employee. The NRC completed its investigation on August 7, 2013.

OI conducted several interviews with CB&I staff and reviewed numerous documents to determine the facts and circumstances surrounding the concerns that were raised. Based upon the evidence developed during the investigation, OI did not substantiate concerns (1) and (2) noted above associated with incorrect settings for certain WPSs and the possible backdating of signatures on training certifications.

With respect to the concern (3) raised about a welder taking a qualifications exam for another SMS employee, the three individuals directly involved in the incident admitted to investigators that, on April 26, 2010, a welder performed welder qualification tests on behalf of the welder's coworker (a structural fitter by trade) who was also present while the tests were performed. The evidence further shows that the weld test supervisor inspected and passed the structural fitter through the tests, even though he knew that the structural fitter had not performed the tests himself, and that the weld test supervisor signed and submitted to SMS two forms that falsely documented the completion of the welder qualification tests.

Based on the evidence developed, OI substantiated that: (1) the welder's coworker (the structural fitter) deliberately engaged in subverting SMS welder qualifications requirements by allowing another person to take welder qualification tests on his behalf; (2) the welder deliberately engaged in subverting SMS welder qualifications requirements by taking welder qualification tests on behalf of the coworker; and (3) the weld test supervisor deliberately engaged in subverting SMS welder qualifications requirements by certifying that the structural fitter passed his welder qualifications tests when he knew that the tests were performed by another person, and by signing and submitting to SMS two forms that falsely documented that the structural fitter completed his welder qualification tests.

Sincerely,

Michael C. Cheok, Director /RA/  
Division of Construction, Inspection,  
and Operational Programs  
Office of New Reactors

Docket No. 99901425

Enclosures:

1. Factual summary of OI Investigation Report  
No. 2-2011-036
2. Brochure NUREG/BR-0317, "The Nuclear Regulatory  
Commission's Post-Investigation ADR Program:  
Alternative Dispute Resolution Administered by  
Cornell University's Institute on Conflict Resolution"

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NRO-002

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