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May 30, 2017

U.S. Nuclear Regulatory Commission  
 Attn: Document Control Desk  
 Chief, Construction Mechanical Vendor Branch  
 Division of Construction Inspection and Operational Programs  
 Office of New Reactors  
 Washington, DC 20555-0001

**SUBJECT:** REPLY TO U.S. NUCLEAR REGULATORY COMMISSION INSPECTION  
 REPORT OF CHICAGO BRIDGE & IRON NO. 99901432/2017-201,  
 NOTICE OF VIOLATION

**REFERENCE:** LETTER FROM JOHN BURKE (NRC) TO JAMES M. ROSSIGNOL (CB&I  
 LAURENS), U.S. NUCLEAR REGULATORY COMMISSION INSPECTION  
 REPORT NO. 99901432/2017-201 AND NOTICE OF NONCONFORMANCE,  
 DATED MARCH 30, 2017.

Dear Mr. Burke,

In response to the referenced NRC Notice of Violation (NOV), CB&I Laurens herewith provides the enclosed reply (enclosure). This reply addresses: NOV of the Notice as they relate to 10CFR Part 21.

Pursuant to the NRCs corresponding instructions specified in the Notice, the enclosure addresses for the NOV: 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.

CB&I Laurens understands the feedback received from the NRC during the inspection and in the published inspection report. The feedback received is taken seriously and it is recognized that attention to this is necessary. Corrective actions have either been completed or initiated to remedy the specific findings provided to avoid further noncompliance.

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 NRO

Should you have any questions regarding this submittal, please contact Matt Rossignol, Quality Manager, at (864) 683-3986.



Sincerely,

A handwritten signature in black ink, appearing to read 'Matt Rossignol', written in a cursive style.

Matt Rossignol  
Quality Manager  
CB&I Laurens

Enclosure:



## Attachment 1

### Reply to Notice of Violation 99901432-2017-201-01

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Chicago Bridge & Iron (hereafter referred to as CB&I Laurens) facility in Laurens, SC, from January 23, 2017, through January 27, 2017, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21.21, "Notification of failure to comply or existence of a defect and its evaluation," Section (a)(1) requires "Each individual, corporation, partnership, dedicating entity, or other entity subject to the regulations in this part shall adopt appropriate procedures to evaluate deviations and failures to comply to identify defects and failures to comply associated with substantial safety hazards as soon as practicable, and, except as provided in paragraph (a)(2) of this section, in all cases within 60 days of discovery, in order to identify a reportable defect or failure to comply that could create a substantial safety hazard, were it to remain uncorrected."

Section 3.2 of CB&I Laurens' procedure BFS-QC-10CFR21, "Procedure for Compliance with 10CFR21/10CFR50.55 (e)," Revision 5, dated April 2, 2015, states, in part, that "If the QA Manager is unable to confirm that the deviation or failure to comply had been previously reported, he shall initiate a 10 CFR Part 21/10 CFR 50.55 (e) Evaluation Form (Exhibit C). The QA Manager shall forward a copy of the 10 CFR Part 21/10 CFR 50.55 (e) Evaluation Form to the General Manager and Project Manager and advise them that an evaluation will be conducted by CB&I Laurens or if it is determined that CB&I Laurens is not able to perform the evaluation, initiate action to notify the Purchaser to perform an evaluation of the deviation or failure to comply. The QA Manager shall complete the evaluation or obtain the evaluation results from the Purchaser."

Contrary to the above, as of January 27, 2017, CB&I Laurens failed to adequately evaluate a deviation potentially associated with a substantial safety hazard in accordance with 10 CFR 21.21(a)(1). Specifically, corrective/preventive action report No. 584 states, in part, that "The Quality Control Manager made a determination that certain UT [ultrasonic testing] documents were completed outside of the expectations of the procedure. A senior CBIL [Chicago Bridge and Iron Laurens] QC [Quality Control] Specialist was suspended pending ERB [Employee Review Board] action for falsification of UT Test records." CB&I Laurens proceeded to perform an investigation and determined that a Senior Quality Control (QC) Specialist had falsified ultrasonic testing (UT) test records. Rather than performing a new Part 21 evaluation, CB&I Laurens took credit for a Part 21 evaluation that was previously performed as part of a root cause analysis to determine if there was widespread falsification of records at CB&I Laurens. However, the root cause analysis did not specifically evaluate whether the falsification of UT test records could create a substantial safety hazard on any piping spools that had been delivered.



### **Reason for Violation**

A Corrective Action Report (CAR) 584 was initiated when this issue was originally brought to light back in March 2015. It is believed that an investigation was conducted at that time including a Part 21 analysis and extent of condition. Upon review of CAR 584 by the NRC it was discovered that the Part 21 were incorrectly closed out to another corrective action due to the causal analysis being the same for both corrective actions. The records related to the initial extent of condition were lost in turnover between organizations tasked with completing the analysis even though numerous individuals involved with the initial verifications believed they were properly completed. It was found to be a human performance issue in that the corrective action was incorrectly closed to an issue with the same causal factors.

### **Corrective actions taken**

Corrective Action Report CAR-2017-048 has been initiated to document the actions that should have been included in CAR 584. An Interim Report was submitted to the NRC on April 10, 2017, to address the evaluation not being completed within the 60 day period. An extent of condition was performed and the spools in question were provided to the client as part of the notification process so arrangements could be made to verify the bend thickness. All spools identified within the extent of condition were verified and found to be within the acceptable minimum wall requirements.

### **Corrective actions that will be taken**

An extent of condition will be performed on all corrective actions initiated since CR 584 and identified as needing a potential 10 CFR Part 21 or 10 CFR 50.55(e) assessment to be sure they were completed correctly.

Additional training will be provided to those individuals who screen and review corrective actions and nonconformances in the evaluation process of potentials 10 CFR Part 21 and 10 CFR 50.55(e) issues.

### **Date when full compliance will be achieved**

Full compliance will be achieved when the evaluation of the identified conditions is completed. This is currently expected to occur by July 28, 2017