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June 16, 2014

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

SUBJECT: CHICAGO BRIDGE AND IRON CORRECTIVE ACTIONS REGARDING EA-13-196

References:

1. EA-13-196; USNRC Office of Investigations Report No. 2-2011-036, dated February 20, 2014
2. EA-12-189; Confirmatory Order and Withdrawal of Notice of Violation and Proposed Imposition of Civil Penalties (NRC Office of Investigations Report 2-2011-047) Chicago Bridge and Iron, dated September 16, 2013
3. EA-13-066, Chilled Work Environment Letter at CB&I's Lake Charles Fabrication Facility, dated April 18, 2013
4. NRC Information Notice 2013-15: Willful Misconduct/Record Falsification and Nuclear Safety Culture, dated August 23, 2013

On May 30, 2014, Chicago Bridge and Iron (CB&I) participated in an Alternate Dispute Resolution (ADR) with the NRC in response to two apparent violations of 10 CFR 52.4 at CB&I's Lake Charles facility as documented in EA-13-196. This letter provides a summary of the corrective actions taken and planned by CB&I prior to the ADR session that were self-identified in response to the 2010 incident documented in EA-13-196.

CB&I recognizes the significance of deliberate misconduct and willful violations. Leader and worker behaviors, as well as organizational factors that may contribute to an environment that allows such behaviors to occur, will not be tolerated. As such, significant corrective actions were taken at the time CB&I self-identified the issues that are the subject of EA-13-196.

A brief summary of these actions follows:

- The issues surrounding the apparent violations were entered into the corrective action program. The resulting condition report was classified as a significant condition adverse to quality and a root cause investigation performed. Due to the sensitivity of the issue, the investigation was performed in conjunction with and in part documented in the Employee Concerns Program.
- The NRC was promptly notified of the issues by CB&I.
- The employment of the individuals involved in the apparent violations was terminated after the investigation determined that their actions were willful and unacceptable.
- CB&I verified that no materials impacted by this issue were shipped from Lake Charles.

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- Corrective actions to prevent recurrence were identified. This included training focused on the meaning of one's signature and the significance of deliberate/willful violations. This content was added to the new employee orientation at Lake Charles. A signature verification process was also implemented.
- Additional corrective actions taken included: (1) All-Hands meetings; (2) improvements in the weld production completion process; (3) Quality Assurance oversight of weld test controls; and (4) additional verification activities by supervision and Quality Assurance.
- Extent of cause and extent of condition reviews were performed and identified issues were corrected.

Subsequent to the above actions on September 16, 2013, CB&I received Confirmatory Order EA-12-189 ("Confirmatory Order" or "CO")¹, and completed a root cause investigation related to EA-13-066 ("Chilled Environment Letter" or "CEL"). Upon receipt of the results of the OI investigation documented in EA-13-196, CB&I reviewed the original corrective actions taken along with the actions taken in response to the CO and CEL to ensure a comprehensive set of actions are in place to mitigate the potential for future deliberate/willful violations. CB&I reviewed NRC Information Notice 2013-15 ("IN") to ensure that corrective actions supported the principles identified in the discussion and conclusions of this industry operating experience. CB&I also conducted an extensive review of documented NRC cases of deliberate/willful violations from other non-CB&I NRC regulated locations to ensure corrective actions were sufficiently bounding and incorporated industry best practices based upon those corrective actions taken by the identified licensees and/or imposed by the NRC.

CB&I has placed significant emphasis on the meaningful implementation of the CO actions. The referenced IN identifies several behaviors related to a healthy nuclear safety culture that need to be continually reinforced in reference to mitigating the potential for deliberate/willful violations. These behaviors are reinforced and measured, with significant oversight provided throughout many actions as specified by the existing CO. For example, the required CO supervisory training is an 8 hour interactive session including numerous small group discussions, case studies and personal commitment/reflection activities which require the attendees to recognize how their individual and team behaviors currently influence the nuclear safety culture of their job site.

As a result of the above reviews, CB&I has self-identified the following additional actions to further strengthen our emphasis on preventing future deliberate or willful violations:

¹ The Confirmatory Order was issued as a result of an agreement reached during ADR between the NRC and CB&I to address two Notices of Violation the NRC issued to CB&I on April 18, 2013, relating to employee protection and Shaw Legacy's Code of Conduct. The Confirmatory Order acknowledged actions CB&I agreed to undertake related to the Chilled Work Environment Letter regarding the Lake Charles facility, also issued on April 18, 2013.



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For all locations where CB&I engages in work associated with NRC-regulated activities, CB&I will:

- Add content on deliberate/willful violations to the scope of the training required by the CO. This training includes a warning that employees could be subject to individual enforcement action and/or sanctions for deliberate misconduct.
- Revise new employee orientation training to include the subject of willful violations and deliberate misconduct.
- Revise the elements of the safety culture programs specified by the CO to include specific focus on monitoring and oversight of deliberate/willful misconduct. To support this effort, CB&I has implemented trend codes in its corrective action program related to the nuclear safety culture traits, including the ability to trend procedure related issues/violations. Additionally, CB&I has implemented an Executive Nuclear Safety Council comprised of senior facility and business line leaders and external consultants with extensive nuclear industry experience. This Council will assess nuclear safety performance across all locations and ensure corrective actions are taken company wide as needed for common or significant performance issues (such as deliberate/willful violations).
- Include specific questions related to deliberate/willful violations in the interviews that support the independent safety culture assessments required by the Confirmatory Order.
- Revise the Employee Concerns Program exit interview form to include a question regarding whether the departing employee is aware of any deliberate/willful misconduct.
- Include assessment and metrics related to deliberate/willful misconduct into Employee Concerns Program and Executive Review Board summary reports.

Additionally, CB&I employees at Lake Charles will receive specific training, including case studies, on willful violations and deliberate misconduct that includes a message from senior management.

CB&I is committed to creating a strong nuclear safety culture at all locations where we engage in work associated with NRC-regulated activities. CB&I is confident that the effective implementation of the actions committed to in response to the above referenced CO, along with the additional actions that have been self-identified in response to the apparent violations identified in the NRC's letter of February 20, 2014, will aid in achieving this end.

Sincerely,

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

Michael J. Annacone
Vice President Nuclear Safety

cc: Regional Administrator, USNRC, Region II
Roy Zimmerman, USNRC, Director, Office of Enforcement