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November 20, 2014

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

SUBJECT: REPLY TO A NOTICE OF NONCONFORMANCE  
NRC INSPECTION REPORT NO. 99901422/2014-201

By letter dated October 24, 2014, CB&I received NRC Inspection Report 99901422/2014-201. The NRC inspection report included a "Notice of Nonconformance" that identified two nonconformances stemming from the NRC inspection performed at the CB&I Power Charlotte office, September 9 – 12, 2014. The two nonconformances are identified as Nonconformance 99901422/2014-201-01 and 99901422/2014-201-02 in the NRC inspection report.

This letter provides the initial reply to the notice of nonconformance. Attached to this letter is the CB&I Power response to Nonconformance 99901422/2014-201-02. The response to Nonconformance 99901422/2014-201-01 is planned for submittal by December 19, 2014. The extension of the allowed response time for Nonconformance 99901422/2014-201-01 is based on the additional time needed by CB&I Power to perform a root cause analysis of the conditions identified in that nonconformance.

The need for additional time was discussed in a telephone conversation between Curtis Castell, CB&I Power Licensing Manager, and Paul Prescott, the NRC Team Leader for this inspection, on November 17, 2014. Mr. Prescott concurred with the time extension for response to Nonconformance 99901422/2014-201-01, as provided by the NRC inspection report guidance, which states, "Where good cause is shown, the NRC will consider extending the response time."

If you have any questions pertaining to this information, please contact Curtis Castell at 980-321-8314.

Sincerely,

Michael Annacone  
Vice President Nuclear Safety

cc: Chief, Quality Assurance Vendor Inspection Branch, Division of Construction Inspection and Operational Programs, Office of New Reactors

Attachment

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**REPLY TO NONCONFORMANCE 99901422/2014-201-02**

This is the CB&I Power initial reply to the Notice of Nonconformance identified in NRC Inspection Report No. 99901422/2014-201, dated October 24, 2014. Additional information in response to Nonconformance 99901422/2014-201-01 will be provided by December 19, 2014.

**NONCONFORMANCE**

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Chicago Bridge & Iron Power (CB&I Power) facility in Charlotte, NC, during September 9, 2014 through September 12, 2014, certain activities were not conducted in accordance with NRC requirements contractually imposed on CB&I Power by its customers or NRC licensees:

- B. Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50, states, in part: "These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery... The effectiveness of the control of quality by contractors and subcontractors shall be assessed by the applicant or designee at intervals consistent with the importance, complexity, and quantity of the product or services."

Criterion IV, "Procurement Document Control," of Appendix B to 10 CFR Part 50, states, in part: "Measures shall be established to assure that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality are suitably included or referenced in the documents for procurement of material, equipment, and services, whether purchased by the applicant or by its contractors or subcontractors."

Section 7, "Control of Purchased Material, Equipment, and Services," of CB&I Power's Standard Nuclear Quality Assurance Program, SWSQAP 1-74A, Revision B, dated June 1, 2009, paragraph 2.0, "Tasks," states, in part: "Quality Assurance / Quality Control (QA/QC) shall:... Incorporate source evaluation/qualification results in the QRL [Quality Rating List] including supplier evaluations/reviews after award. Supplier post award evaluations/reviews shall be documented and shall consider the following where applicable: A. Receipt inspection, operating experience, and prior supplier evaluations. As the information becomes available, the results shall promptly be considered for effect on a supplier's continued qualification and adjustments made as necessary including corrective actions, adjustments of supplier audit plans, and input auditing teams, as warranted. Additionally, results shall be reviewed periodically to determine if, as a whole, they constitute a significant condition adverse to quality requiring additional action."

Section 4, "Procurement Document Control," of CB&I Power's Standard Nuclear Quality Assurance Program, SWSQAP 1-74A, Revision B, dated June 1, 2009, paragraph 1.1, states: "Procurement documents shall include the requirements necessary for establishing the quality of the procured material, equipment, and services."

Section 6.7.2 of CB&I Nuclear Quality Assurance Directive (QAD) 18.01, "Quality Assurance Audits," Revision 004, dated March 7, 2014, states, in part: "For Supplier audits:... The ATL [Audit Team Leader] shall evaluate each Finding response to verify that reported conditions have been appropriately addressed, as to cause, extent of condition, corrective action, and action taken to prevent recurrence; and that the time frames specified for completion of committed actions are reasonable and appropriate for reported conditions."

Section 6.6.1b CB&I QS 04.03, "Office Procurement and Subcontracting and Selection of Suppliers," Revision 03.00, dated May 30, 2014, states: "The SQC shall periodically review oversight activity results (e.g., scorecard/metrics, surveys, findings, trend data from source and/or receipt inspections, etc.) on the select suppliers of components/materials and provide action recommendations as it relates to quality oversight activities."

Contrary to the above, as of September 12, 2014, CB&I Power failed to establish adequate measures to assess the effectiveness of control of quality by a contractor consistent with the importance, complexity, and quantity of the product or services. Also, CB&I Power failed to establish measures to assure that applicable requirements which are necessary to assure adequate quality were suitably included or referenced in the documents for procurement of material, equipment, and services. Specifically, CB&I Power failed to ensure that significant conditions adverse to quality associated with findings Nos. V2013-30-01 and V2013-30-02, and conditions adverse to quality associated with findings Nos. V2013-30-04 and V2013-30-10, identified during Vendor Audit V2013-30 of Newport News Industrial Corporation (NNI), conducted in June 2013, have been appropriately addressed, prior to removing restrictions placed on the QRL for that supplier in October 2013. Furthermore, CB&I Power failed to ensure that appropriate QRL restrictions for NNI remained included or referenced in the procurement documents, by issuing Purchase Order Revision No. 132175-D100.SB003, Revision 35 on October 15, 2013 that removed the restrictions.

This issue has been identified as Nonconformance 99901422/2014-201-02.

## **REASON FOR THE NONCOMPLIANCE**

This condition has been documented in corrective action report (CAR) 2014-1774. The apparent cause for this noncompliance has been determined to be the incorrect conscious decision to remove the restriction with the corrective actions still open, based on agreement that if the actions were not completed by the due dates the restrictions could be re-imposed. However, the wording of the restriction did not allow for this approach without violating the restriction. The causal analysis also determined that procedure QAD 7.17, "Supplier QA Program Evaluation," does not include sufficient guidance for adding and removing QRL restrictions.

## **CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED**

During the investigation of this condition, it was verified that no safety-related modules were shipped prior to the required corrective actions associated with the applicable QRL restrictions being implemented and closure of the associated audit findings. Additionally, QA surveillance was performed and documented in a surveillance report (VS 2013-029) approved on December 18, 2013, that also reviewed and documented the appropriate closure of the identified audit findings.

Additionally, as part of the evaluation of this condition, CB&I Quality Assurance performed a review of the QRL for Supplier Quality Committee (SQC) selected suppliers for the past twelve months to determine if any similar issues had occurred regarding QRL restrictions. The dates of the review ranged from October 27, 2013, to October 27, 2014. During this time frame, there were fourteen (14) instances where an SQC selected supplier had a restriction removed. These fourteen (14) cases were found to have satisfactory documented evidence for removal of the restriction. Documentation was only considered satisfactory when the findings were closed based on satisfying the restriction requirements, or the actions required to be taken to lift the restrictions were received and approved by the responsible Audit Team Leader (ATL) via an audit response evaluation. Therefore, no additional circumstances of this condition have been found and it has been verified that the adverse conditions were resolved prior to shipment of material from the supplier.

#### **CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER NONCOMPLIANCE**

Procedure QAD 7.17, "Supplier QA Program Evaluation," will be revised to include additional guidance for adding and removing QRL restrictions. This procedure revision will also include requirements for review of objective evidence to allow lifting restrictions.

The QA Group, Audit Team Leaders, and the SQC members shall be provided training regarding the revised QAD 7.17 requirements. This training shall include the circumstances of the condition described in the NRC inspection report and the revised QAD 7.17 procedure requirements regarding adding and removing QRL restrictions.

#### **DATE WHEN CORRECTIVE ACTION WILL BE COMPLETED**

The corrective actions will be completed by January 23, 2015.