

January 27, 2014

Curtis A. Castell, P.E.
Licensing Manager
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128 S. Tryon St., Suite 400
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SUBJECT: REQUEST FOR THE REVIEW OF CB&I NUCLEAR TOPICAL REPORT
CMS-720-03-PL-00020, REVISION 0, "QUALITY ASSURANCE PROGRAM
DESCRIPTION" (TAC NO. MF1798)

Dear Mr. Castell:

By letter dated May 13, 2013 (Agencywide Documents Access and Management System Accession No. ML13137A098), the CB&I submitted for U.S. Nuclear Regulatory Commission (NRC) staff review Topical Report (TR), CMS-720-03-PI-00020, Revision 0, "Quality Assurance Program Description." Upon review of the information provided, the NRC staff has determined that additional information is needed to complete the review.

On January 15, 2014, you, representing CB&I, and I agreed that the NRC staff will receive your response to the enclosed request for additional information (RAI) questions by March 31, 2014.

If you have any questions regarding the enclosed RAI questions, please contact me at 301-415-7297.

Sincerely,

/RA/

Joseph J. Holonich, Sr. Project Manager
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

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On January 2, 2014, you, representing CB&I, and I agreed that the NRC staff will receive your response to the enclosed request for additional information (RAI) questions by March 31, 2014.

If you have any questions regarding the enclosed RAI questions, please contact me at 301-415-7297.

Sincerely,

/RA/

Joseph J. Holonich, Sr. Project Manager
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NRR-106

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DATE	01/02/2014	01/06/2014	01/09/2014	01/27/2014	01/27/2014

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Request for Additional Information
Regarding CB&I Nuclear Quality Assurance (QA) Program Description (QAPD)
CMS-720-03-PL-00020, Revision 0

- 1.0 Provide a list of office locations, whose activities are performed in accordance with this quality program. Include entity names (Shaw, CB&I, Stone, and Webster as appropriate).
- 2.0 Title 10 of the *Code of Federal Regulations* (10 CFR), Appendix B of Part 50 states in part that the authority and duties of persons and organizations performing activities affecting the safety-related functions of structures, systems, and components shall be clearly established and delineated in writing. These activities include both the performing functions of attaining quality objectives and the quality assurance functions. The persons and organizations performing quality assurance functions shall have sufficient authority.
 - a. Part II, Section 1 of the CB&I QAPD assigns duties to the Director, Nuclear Quality. Clarify this position and provide a discussion on how this position reports to management and fits into the CB&I organizational chart provided in Figure 1.
 - b. Part II, Section 1 of the CB&I QAPD references the term Director, Nuclear Quality. How is this position represented in the organizational chart?
 - c. Provide a description of the Environmental Health and Safety group in Part II, Section 1 of the CB&I QAPD.
 - d. In Figure 1, the CB&I organizational chart has a dashed line from SVP Functional Operations to President, Plant Services and President, Nuclear (business line). Please provide a discussion for the interactions for these links.
 - e. For description 1.4.4, "Contracts/Subcontracts" there is a typographical error: contact/subcontracted should be contracted/subcontracted.
- 3.0 In Part II, Section 7, Item 7.2.4 states that holders of American Society of Mechanical Engineers (ASME) Authorized Inspection Agency (AIA) Certificates of Accreditation are considered qualified to perform AIA services within the scope of the certificate in accordance with the ASME Code. "The ASME AIA Certificate is considered sufficient evidence of an acceptable AIA quality assurance program. Pre and Post Award audits are not required." Clarify how this meets the intent of the staffs' position described in Information Notice (IN) 86-21, "Recognition of American Society of Mechanical Engineering Accreditation Program for N Stamp Holders." IN 86-21 allows taking credit for the quality assurance program; however, verification of the implementation of the program is required.

ENCLOSURE

- 4.0 Describe the oversight of contracted/delegated activities and how the work is formally evaluated.
- 5.0 In Part IV, "Regulatory Commitments," Section B, "Operations Phase Only," the vendor commits to Regulatory Guide (RG) 1.58, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," Revision 1. RG 1.58 has been withdrawn. The ANSI standard endorsed by this RG has been incorporated into NQA-1 starting with the 1983 Edition of NQA-1. Clarify which version of SNT-TC-1A will be used or how it will be determined (see Part II, Section 2). Also, discuss the use of SNT-TC-1A-1992 in the Part IV, Section B discussion on RG 1.58. Address any deviations to NQA-1 2008 Edition through 2009 Addenda.
- 6.0 In Part IV, Section B, the vendor commits to the following RGs:
- RG 1.38, Revision 2, "Quality Assurance Requirements for Packaging, Shipping, Receiving and Handling of Items for Water-Cooled Nuclear Power Plants," (Withdrawn - See 75 FR 54921, 09/09/2010)
 - RG 1.39, Revision 2, "Housekeeping Requirements for Water-Cooled Nuclear Power Plants," (Withdrawn - See 75 FR 70044, 11/16/2010)
 - RG 1.64, Revision 2, "Quality Assurance Requirements for the Design of Nuclear Power Plants," (Withdrawn - See 56 FR 36175, 07/31/1991)
 - RG 1.74, Revision 0, "Quality Assurance Terms and Definitions," (Withdrawn - See 54 FR 38919, 09/21/1989)
 - RG 1.88, Revision 2, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records," (Withdrawn - See 56 FR 36175, 07/31/1991)
 - RG 1.94, Revision 1, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel during the Construction Phase of Nuclear Power Plants," (Withdrawn - See 75 FR 54921, 09/09/2010)
 - RG1.116, Revision O-R, "Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems," (Withdrawn - See 75 FR 54921, 09/09/2010)
 - RG 1.123, Revision 1, "Quality Assurance Requirements for Control of Procurement of Items Services for Nuclear Power Plants," (Withdrawn - See 56 FR 36175, 07/31/1991)
 - RG1.144, Revision 1, "Auditing of Quality Assurance Programs for Nuclear Power Plants," (Withdrawn - See 56 FR 36175, 07/31/1991)
 - RG 1.146, Revision 0, "Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants," (Withdrawn - See 56 FR 36175, 07/31/1991)

These RGs have been withdrawn. The guidance endorsed in these RGs has been incorporated into NQA-1. Clarify these deviations related to your commitment to NQA-1 2008 Edition through 2009 Addenda. Additionally, provide a discussion on how these RGs are relevant to only the operation phase for nuclear power plants that you may have contracts to perform safety related activities.

- 7.0 In Part IV, Section B, the vendor commits to RG 1.30/ Safety Guide 30, "Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation of Electronic Equipment." The guidance in this document has been incorporated into NQA-1. Clarify these deviations related to your commitment to NQA-1 2008 Edition through 2009 Addenda. Additionally, provide a discussion on how this RG is relevant to only the operation phase for nuclear power plants that you may have contracts to perform safety related activities.
- 8.0 In Part IV, Section B, the vendor commits to RG 1.70, Revision 3, "Standard Format and Content of Safety Analysis Report for Nuclear Power Plants," RG 1.136, Revision 3, "Design Limits, Loading Combinations, Materials, Construction, and Testing of Concrete Containments," RG 1.142, Revision 2, "Safety-Related Concrete Structures for Nuclear Power Plants (Other than Reactors Vessels and Containment," and "Additional Guidance". Provide a discussion why these RGs and "Additional Guidance" are applicable to "Operations Phase Only."
- 9.0 Clarify if CB&I will commit to RG 1.206, Rev. 0, "Combined License Applications for Nuclear Power Plants, (LWR Edition)," for the potential development of a combined license application.
- 10.0 In Part IV, Section B, the vendor commits to RG 1.28, Revision 2, "Quality Assurance Program Criteria (Design and Construction)," for the "Operations Phase Only." For "Construction and Post Construction Phase" the QAPD commits to RG 1.28, Revision 4. Please discuss how the older versions of RG 1.28 (Revisions 2 and 3) are relevant when the QAPD is based on NQA-1, 2008 Edition through the 2009 Addenda.