



## Department of Energy

Washington, DC 20585

September 13, 2010

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Frank M. Russo  
Project Director  
Bechtel National, Inc.  
2435 Stevens Center Place  
Richland, Washington 99352

NCO-2010-03

Dear Mr. Russo:

The Office of Health, Safety and Security's Office of Enforcement has completed its investigation into the facts and circumstances associated with the inadequate dedication of commercially available materials and components for use in nuclear safety applications by vendors to Bechtel National, Inc. (BNI). These materials and components are used in the construction of the Waste Treatment and Immobilization Plant (WTP) located at the U.S. Department of Energy (DOE) Hanford Site. The investigation addressed specific areas of potential noncompliance with DOE nuclear safety requirements established in Title 10 Code of Federal Regulations (C.F.R.) Part 830, *Nuclear Safety Management*.

The Office of Enforcement investigation identified significant deficiencies related to BNI's oversight of its vendors' implementation of their commercial grade dedication (CGD) programs. Examples of specific deficiencies by these vendors included: (1) inadequacy in determining the critical characteristics of materials and components; (2) sampling techniques and lot formation that were not properly conducted; and (3) methods used for material and component acceptance and acceptance testing that were not clearly defined. Of particular concern is BNI's failure to adequately correct similar problems that were noted in an Office of Enforcement Preliminary Notice of Violation issued to BNI in October 2007, and a BNI Corrective Action Report in 2007 in which one of the corrective actions was to "review Q suppliers who have indicated they are performing CGD to verify that they have been evaluated to perform CGD by BNI Supplier Quality."

Although additional costs have resulted from these problems, it appears at this time that the deficiencies did not result in the receipt or installation of materials or components that did not meet established requirements and specifications. Compensatory actions taken by BNI were prompt when the problem was identified, and seem appropriate to address the immediate deficiencies and to evaluate the extent of the vendor CGD issue. Further, the Office of Enforcement, having reviewed BNI's response to these problems, acknowledges the completion of a root cause analysis and a common cause review. Particularly noteworthy were BNI's CGD instructional workshops to heighten the awareness and



understanding of CGD requirements in the WTP vendor community. The lessons learned from the BNI vendors' CGD issues have also heightened contractor awareness and understanding of the problem throughout the Department.

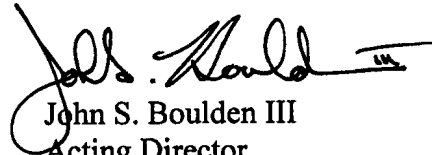
In accordance with 10 C.F.R. § 820.23, the Office of Enforcement has exercised its enforcement discretion to resolve these issues through a Consent Order. DOE's decision to enter into a Consent Order is based upon BNI's corrective actions taken in response to the identified deficiencies in its vendor CGD oversight during the construction of the WTP. In addition, DOE believes that BNI corrected the identified issues in a comprehensive manner before the WTP transitioned from construction to commissioning, and thus BNI appears to have addressed the deficiencies without an adverse impact on workers, the public, or the environment.

DOE reserves the right to initiate enforcement proceedings against BNI if it later becomes known that any of the facts or information provided to DOE regarding the described deficiencies was false or inaccurate in any material way. Further, if there is a recurrence of nuclear safety deficiencies similar to those identified above, the Office of Enforcement may decide to pursue additional enforcement action. The Office of Health, Safety and Security, the DOE Office of Environmental Management, and the DOE Office of River Protection will continue to closely monitor quality assurance related performance for this project.

Enclosed are two signed copies of the Consent Order. Please sign both, keep one for your records, and return the other copy to this office within one week from the date of receipt of this Order. By signing this Consent Order, BNI agrees to remit a \$170,000 monetary remedy, payable to the Treasurer of the United States, in accordance with the directions in the enclosed Order and to provide DOE with the information specified in section III of the Consent Order.

Should you have any questions, please contact me at (301) 903-2178, or your staff may contact Mr. Steven Simonson, Acting Director, Office of Price-Anderson Enforcement, at (301) 903-2816.

Sincerely,



John S. Boulden III  
Acting Director  
Office of Enforcement  
Office of Health, Safety and Security

Enclosure

cc: David Brockman, ORP  
Dawn Kammenzind, BNI  
Richard Azzaro, DNFSB

In the matter of ) Report No. NTS-ORP--BNRP-RRPWTP-2009-0004  
)  
)  
Bechtel National, Inc. )  
)  
)  
)  
) Consent Order NCO-2010-03

CONSENT ORDER INCORPORATING AGREEMENT BETWEEN  
U.S. DEPARTMENT OF ENERGY AND BECHTEL NATIONAL, INC.

I

Bechtel National, Inc. (BNI) is the primary construction contractor for the Waste Treatment and Immobilization Plant (WTP) located at the Hanford Site. BNI uses many vendors to supply the project with nuclear safety-related materials and components procured through the vendors' commercial grade dedication (CGD) programs.

II

In May 2009, the DOE Office of River Protection (ORP) conducted a surveillance of two WTP suppliers, reporting that "ORP identified significant technical and quality issues with these suppliers' CGD efforts, indicating that lessons learned and corrective actions from BNI's CGD problems, identified three years ago, were not adequately flowed down to suppliers." In July 2009, ORP performed a surveillance of another BNI vendor and identified similar issues regarding implementation of the vendor's CGD program. The findings from these surveillances were formally transmitted from ORP to BNI in July 2009. Based on this information, BNI implemented a comprehensive suspension of shipments for all Q suppliers (i.e., suppliers who must meet specified quality standards) as an initial compensatory measure, pending review of the suppliers' CGD programs.

The Office of Health, Safety and Security's Office of Enforcement investigation identified a longstanding problem in BNI oversight of vendor CGD programs and concluded that BNI's efforts to correct known problems in these CGD programs have not been sufficient to prevent recurrence. The BNI root cause analysis, conducted in response to the aforementioned ORP surveillances, identified the following causes: (1) failure to confirm that rigorous CGD expectations and requirements were clearly understood by suppliers and sub-suppliers; (2) failure to execute rigorous supplier and sub-supplier qualification reviews to ensure capability of meeting requirements (e.g., CGD) at the time of the initial qualification survey and for subsequent performance-based audits, surveillances, and in-shop inspections; (3) overreliance on Q suppliers' knowledge of CGD and flowdown of CGD requirements to their suppliers; (4) inadequate monitoring of and action on supplier and sub-supplier CGD issues through trending and analysis, lessons learned, and performance indicator processes; (5) ineffective or unclear roles, responsibilities, accountabilities, authorities, interfaces, and training for effective

CGD program implementation; and (6) inadequate use of CGD subject matter experts in the review, approval, and oversight of CGD program activities.

### III

BNI voluntarily reported potential noncompliances with DOE nuclear safety requirements to DOE via the Noncompliance Tracking System (NTS) (NTS-ORP--BNRP-RRPWTP-2009-0004). DOE has concluded that BNI's investigation and causal analysis associated with the identified vendor CGD program issues were thorough and comprehensive. The corrective actions identified by BNI appear appropriate to address the causes that contributed to the deficiencies and prevent recurrence.

However, DOE is concerned that BNI may not be taking a sufficiently broad view of potential weaknesses in its oversight of subcontractors and suppliers beyond the area of vendor CGD programs and similar underlying weaknesses may exist in other areas of BNI operations. In addition, the Office of Enforcement agrees with the ORP concern that lessons learned and corrective actions from previous, similar CGD problems were not adequately flowed down to BNI's suppliers. The ineffectiveness of BNI's corrective action management program in preventing recurrence of issues has been a longstanding concern of the Office of Enforcement. Based on the above concerns, by signing this Consent Order, BNI agrees to the following:

1. In several instances that were the subject of a Notice of Violation, BNI's failure to correct, in a timely manner, known problems in its construction activities has led to the procurement, receipt, and in some cases installation of material or equipment that did not meet requirements. Corrective actions associated with certain corrective action reports (i.e., CAR-06-215 and CAR-07-321) were similarly ineffective in correcting identified vendor CGD issues in a timely manner. In 2008, BNI initiated a Corrective Action Implementation Plan identifying a set of actions to improve corrective action management at the WTP. *Given past weaknesses in BNI's corrective action management process, BNI will arrange for an independent party (non BNI) to perform an effectiveness review of all actions taken since 2008 to improve that process. This review should address causal analysis, corrective action identification/tracking/closure, corrective action effectiveness review, extent of condition review, common cause analysis, trending /analysis, and adequacy of QA resources to implement and oversee QA programs, including CGD.*
2. In 2006, BNI initiated its Nuclear Safety Quality Imperative (NSQI) to address identified weakness in the nuclear safety culture at the WTP. This initiative was a primary corrective action associated with the issues that were the subject of a Notice of Violation issued by the Office of Enforcement in March 2006 (EA-2006-03). Since that time, the Office of Enforcement has issued three additional Notices of Violation to BNI and, on several occasions, has questioned the status of the NSQI and has been assured that the initiative is active and ongoing. BNI identified the need to "reinvigorate" the NSQI in its root cause analysis and common cause evaluation

associated with the CGD issues. *Given the fundamental importance of a sound nuclear safety culture at the WTP and the recognition that corrective action has been and will continue to be needed in this area, BNI will provide details on how the NSQI "reinvigoration" will be accomplished, what steps will be taken to assure that the effort is sustained, how new hires will be trained in the NSQI, how BNI NSQI expectations will flow down to subcontractors, and how NSQI effectiveness will be periodically evaluated.*

3. In September 2009, BNI issued a root cause analysis report that identified two root causes, four contributing causes, and several judgments of need (JONs). The results of the root cause analysis and the JONs focus on vendor CGD, rather than recognizing that vendor CGD issues are a subset of a more comprehensive vendor oversight and qualification program. This comprehensive program includes the identification and appropriate examination of vendor quality program issues during scheduled audits and surveillances and during Responsible Engineers' and Quality Assurance Engineers' visits to sub-vendors in support of material acceptance plan reviews. Some BNI actions identified in the BNI corrective action management system address the needed improvements in the overall vendor qualification program, but none of these actions were identified or discussed in the NTS report cited in this section. *Therefore, BNI will provide details on all actions being taken to address the necessary improvements in their vendor qualification program, and will provide a corrective action effectiveness review.*

#### IV

DOE and BNI have reached agreement on this matter. Both have agreed to issuance of this Consent Order in lieu of enforcement proceedings on this matter, including the potential for the issuance of a Notice of Violation with the imposition of a civil penalty. DOE and BNI further agree that, in recognition of the corrective actions developed and implemented by BNI in this matter, the payment to be provided by BNI has been reduced from what could have been proposed through the formal enforcement process.

#### V

DOE and BNI agree that the sum paid by BNI to resolve this matter shall not be considered a reimbursable cost. Pursuant to 41 U.S.C. § 256(k) and the implementing provisions of the Federal Acquisition Regulation found at 48 C.F.R. § 31.205-47, *Costs related to legal and other proceedings*, DOE and BNI further agree that all costs incurred by, for, or on behalf of BNI relating to DOE's investigation of the matters covered by this Consent Order shall be treated as unallowable expenses under Contract No. DE-AC27-01RV14136 between DOE and BNI.

## VI

This Consent Order is issued pursuant to DOE's authority in Section 234A of the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2282a), and the implementing provisions of 10 C.F.R. § 820.23. BNI agrees to pay to the Treasurer of the United States (Account Number 891099), mailed to the Director, Office of Enforcement, U.S. Department of Energy, an amount of \$170,000, reflecting an agreed amount in lieu of any potential Notice of Violation and imposition of a civil penalty for the nuclear safety deficiencies discussed herein.

## VII

DOE agrees to refrain from initiating enforcement activity against BNI for any potential violations pertaining to the referenced matters. This Consent Order does not preclude DOE from re-opening the investigation or pursuing enforcement activity: (1) if it later becomes known that any of the facts or information provided regarding the described deficiencies were false or inaccurate in any material way, (2) for incidents or conditions other than those described in the above referenced NTS reports, or (3) for failure to complete the corrective actions, as outlined in the above referenced NTS reports, in an effective and timely manner to prevent recurrence.

## VIII

Accordingly, it is hereby ordered as follows:

1. BNI agrees to return a signed copy of this Consent Order, within 1 week from the date of receipt, to the address provided in Item 2.
2. BNI agrees to remit \$170,000 by check, draft, or money order payable to the Treasurer of the United States (Account Number 891099) within 30 days of signing this Consent Order. Payment shall be sent by overnight carrier to the Director, Office of Enforcement, at the following address:

Director, Office of Enforcement  
Attention: Office of the Docketing Clerk  
HS-40  
U.S. Department of Energy  
19901 Germantown Road  
Germantown, MD 20874-1290

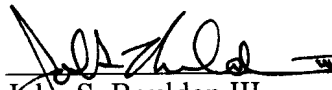
3. BNI agrees to complete the actions stated in Section III of this Consent Order, including delivery of the requested items within 120 days from the date that BNI signs this Order.


4. Payment made to DOE under this Consent Order shall completely resolve and serve as a full and final settlement of any and all enforcement activity taken under 10 C.F.R. Part 820, arising from the referenced NTS report.
5. In accordance with 10 C.F.R. § 820.23(d), this Consent Order shall become a Final Order 30 days after the signed copy, referenced in Item 1, is filed by the Office of Enforcement's Office of the Docketing Clerk unless the Secretary of Energy files a rejection of the Consent Order or a Modified Consent Order.
6. BNI waives any and all rights to appeal or otherwise seek judicial review of this Consent Order. DOE and BNI retain the right, however, to judicially enforce the provisions herein by all legal means.

On behalf of my respective organization, I hereby agree to and accept the terms of the foregoing Consent Order.

FOR U.S. Department of Energy

FOR Bechtel National, Inc.

 Date 9/6/10  
John S. Boulden III  
Acting Director  
Office of Enforcement  
Office of Health, Safety and Security

 Date 9/6/10  
Frank M. Russo  
Project Director  
Bechtel National, Inc.