



Department of Energy
Washington, DC 20585

January 20, 2004

Mr. Paul Divjak

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Bechtel BWXT Idaho, L.L.C.

Idaho National Engineering and Environmental Laboratory

2525 N. Fremont Avenue

Idaho Falls, Idaho 83415

EA-2004-01

Subject: Preliminary Notice of Violation and Proposed Imposition of Civil Penalty,
\$41,250

Dear Mr. Divjak:

This letter refers to the Department of Energy's (DOE) evaluation of potential noncompliances associated with the July 17, 2003, waste stack-toppling event at the Subsurface Disposal Area (SDA). During the event, a column of low-level radioactive waste containers toppled over, with several coming to rest on the forklift being used to stack the waste. In addition to the potential radiological consequences of the event, the event had serious occupational safety implications and constituted a "near-miss."

Bechtel BWXT Idaho (BBWI) reported potential noncompliances identified during the investigation of the event in the Noncompliance Tracking System (NTS) on September 15, 2003. Specific deficiencies identified by your investigation into the event included failure of the applicable Job Safety Analysis (JSA) and operating procedures to recognize or address material stacking hazards and stability issues; routine noncompliance with procedural requirements for emplacing nonstandard waste boxes by crane in the SDA; and the lack of formal training for waste operators on SDA procedures.

Your investigation also identified weaknesses in BBWI's quality improvement and assessment processes. Specifically, the investigation found that a causal analysis performed in response to a May 2002 precursor event was limited in scope and failed to identify stack stability and procedural compliance issues. Consequently, corrective actions were not effective in addressing these concerns. The investigation also determined that no BBWI management or independent assessments of SDA operations have been performed, due to their perceived low-risk status.

Subsequent to your reporting of the event, you requested DOE to consider disposition of the issues raised by your investigation by issuance of a Consent Order. A meeting was held between DOE and BBWI representatives on October 28, 2003, in

Germantown, Maryland, to discuss your request, the findings of your investigation, the corrective actions you have developed, and BBWI Price-Anderson Amendments Act Program overall performance.

DOE's investigation into the event included review of the BBWI event investigation, discussion with BBWI staff, and review of supplemental BBWI documentation. Based on this review, DOE has concluded that violations of the Quality Assurance Rule (10 CFR 830.120) have occurred. DOE has also determined it would be inconsistent with our established policy to conclude this matter by issuance of a Consent Order agreement. As identified in Enforcement Guidance Supplement 03-01, *Supplemental Guidance Concerning the Factual Bases for Issuing Consent Orders Pursuant to 10 CFR 820.23*, DOE evaluates the recent nuclear safety performance history of the contractor, in addition to the scope and extent of the noncompliance investigation and associated corrective actions, when considering issuance of a Consent Order. In this case, although your investigation into the event and corrective actions taken and planned were comprehensive, we found that the operational history at the Radioactive Waste Management Complex (RWMC) did not reflect a history of strong nuclear safety performance. Specifically, during 2002 DOE issued both an Enforcement Action (EA 2002-02) and a separate Enforcement Letter for RWMC operational events involving significant examples of procedural noncompliance. As identified in your own investigation, the subject waste stack-toppling event in 2003 exhibited similar procedural compliance deficiencies.

Consequently, we have determined that issuance of an Enforcement Action is the more appropriate enforcement route for this matter, with mitigation for the comprehensive nature of your investigation as discussed below. We also understand that, based on the earlier October 2003 meeting on this subject, you have declined the opportunity for an Enforcement Conference on this matter.

Violations identified in association with the event are described in the enclosed Preliminary Notice of Violation (PNOV). Section I of the PNOV relates to the procedural inadequacies and procedural noncompliance issues associated with the waste stack-toppling event. These deficiencies were long-standing in nature.

Section II of the PNOV relates to the Quality Improvement deficiencies associated with the event. These specifically include BBWI's failure to appropriately identify and correct apparent deficiencies in response to a May 2002 precursor event, as well as the lack of assessment activities of the SDA operations.

Section III of the PNOV relates to training deficiencies associated with the event. These include the lack of formal documented training on SDA operating procedures for waste operators, and the lack of refresher training on procedural revisions for SDA foremen.

While multiple citations could have been issued in this case, particularly given the scope and long-standing nature of the RWMC deficiencies you identified in your investigation, DOE believes it is appropriate to recognize the aggressive and comprehensive nature of

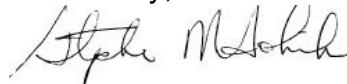
your investigation as well as the relatively limited nuclear safety significance of the current violations. Therefore, DOE is utilizing enforcement discretion to combine the violations identified in sections I, II, and III of the PNOV into a single Severity Level II citation with associated civil penalty. In addition, in further recognition of the comprehensive corrective actions you have taken in response to this latest incident, the proposed civil penalty was reduced by 25 percent. That is the maximum mitigation factor that this office applies when a quality improvement violation is cited. No mitigation is warranted for timely identification and reporting of the event, which was self-disclosing.

You are required to respond to this letter and follow the instructions specified in the enclosed PNOV when preparing your response. Your response should document any additional specific actions taken to date. Corrective actions will be tracked in the NTS. You should enter into the NTS (1) any actions that have been or will be taken to prevent recurrence and (2) the target and completion dates of such actions.

DOE is also particularly interested in your ongoing analysis of the extent of condition reviews you performed to evaluate the adequacy of management oversight at all nuclear facilities at the INEEL. Your response, or separate follow-up transmittals, should document the results of this analysis.

After reviewing your response to the PNOV, including your proposed corrective actions, in addition to the results of future assessments or inspections, DOE will determine whether future enforcement action is necessary to ensure compliance with DOE nuclear safety requirements.

Sincerely,



Stephen M. Sohinki

Director

Office of Price-Anderson Enforcement

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Enclosure:
Preliminary Notice of Violation

cc: E. Sellers, Manager, DOE-ID
R. Wilbur, DOE-ID
S. Somers, DOE-ID
J. Roberson, EM-1
L. Vaughn, EM PAAA Coordinator

W. Magwood, NE-1
J. Boda, NE PAAA Coordinator
B. Cook, EH-1
A. Kindrick, EH-1
A. Wagner, BBWI
R. Azzaro, DNFSB
T. Weadock, OE
Docket Clerk, OE

**Preliminary Notice of Violation
and
Proposed Imposition of Civil Penalty**

Bechtel BWXT Idaho
Idaho National Engineering and Environmental Laboratory

EA-2004-01

As a result of the Department of Energy's (DOE) evaluation of identified Work Process and Quality Improvement deficiencies associated with operations at the Radioactive Waste Management Complex (RWMC) Subsurface Disposal Area (SDA), violations of DOE nuclear safety requirements were identified. In accordance with the "General Statement of Enforcement Policy," 10 CFR 820, Appendix A, DOE is issuing this Preliminary Notice of Violation (PNOV). The particular violations are set forth below.

I. Work Processes

10 CFR 830.122(e)(1) requires that contractors "Perform work consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means."

Contrary to the above, prior to the July 2003 waste stack-toppling event, approved procedures and instructions used to control SDA burial pit work activities were not adequate to control associated hazards. Additionally, work activities were not conducted in a manner consistent with existing approved procedures. Specific examples include the following:

- A. BBWI Management Control Procedure MCP-3562, *Hazard Identification Analysis and Control of Operational Activities*, describes the process used to identify and control hazards associated with site operational activities. Steps in the process include the performance of a hazard screen to identify hazards associated with the work to be performed, and the development of an appropriate set of standards, practices and controls tailored to the specific hazards.

Contrary to these requirements, adequate controls were not developed to control potential hazards associated with SDA bulk pit disposal activities. The applicable

Job Safety Analysis (JSA) developed to control SDA bulk pit emplacement activities (JSA RWMC-6627 Rev. 0) failed to identify and provide controls for the potential hazards associated with unstable waste stacks. Operating procedure TPR-1706, *Approved SDA Bulk Pit Disposal*, was also inadequate, in that it failed to provide stacking requirements for nonstandard items in the bulk pit.

- B. BBWI procedure TPR-1706, *Approved SDA Bulk Pit Disposal*, controls the unloading and emplacement of nonstandard waste items specifically into the SDA bulk pit. This procedure requires the use of a crane for unloading and placing nonstandard waste items.

Interviews and record reviews performed after the July 2003 stack-toppling event identified that operators routinely used a forklift to unload and emplace nonstandard waste items into the SDA bulk pit. This represents a violation of TPR-1706.

II. Quality Improvement

10 CFR 830.122(c), Quality Improvement, requires contractors to “(1) Establish and implement processes to detect and prevent quality problems...” and “(3) Identify the causes of problems and work to prevent recurrence as a part of correcting the problem.”

Contrary to the above, BBWI processes to identify, control, correct, and prevent recurrence of quality problems were not adequately implemented. The following specific examples were identified:

- A. In May 2002, a precursor event occurred at the SDA bulk pit in which a nonstandard waste box fell onto an adjoining waste stack during emplacement with a forklift. The contractor investigation into the event was limited to an apparent causal analysis, and resulted in a superficial corrective action related to the placement of a spotter. This limited investigation failed to identify stack stability as a hazard, and also failed to identify that the use of the forklift violated the operating procedure.
- B. Since assuming responsibility for RWMC in 1999, no management or independent assessments of SDA operations had been performed by BBWI. SDA operations were considered to be low-risk and consequently represented a low-priority assessment objective.

III. Personnel Training and Qualification

10 CFR 830.122 (b), Personnel Training and Qualification, requires the contractor to “(1) Train and qualify personnel to be capable of performing their assigned work ...” and “(2) Provide continuing training to personnel to maintain their job proficiency.”

Contrary to the above, the following deficiencies were identified associated with training of personnel on SDA operational procedures:

- A. Waste operators working in the SDA received no formal documented training on SDA operational procedures (specifically TPR-1703 and TPR-1706).
- B. Training on revisions to operating procedures (TPR-1703 and TPR-1706) was not provided to SDA foremen or waste operators.

Collectively, the violations identified in sections I, II and III of this Preliminary Notice of Violation constitute a Severity Level II problem.

Civil Penalty - \$41,250

Pursuant to the provisions of 10 CFR 820.24, BBWI is hereby required within 30 days of the date of this PNOV to submit a written reply to the Director, Office of Price-Anderson Enforcement, at one of the following addresses:

(if sent by U.S. Postal Service):

Director, Office of Price-Anderson Enforcement
 Attention: Office of the Docketing Clerk
 EH-6, 270 Corporate Square Building
 U.S. Department of Energy
 1000 Independence Avenue, SW
 Washington DC 20585-0270

(if sent by overnight carrier):

Director, Office of Price-Anderson Enforcement
 Attention: Office of the Docketing Clerk
 EH-6, 270 Corporate Square Building
 U.S. Department of Energy
 19901 Germantown Road
 Germantown, MD 20874-1290

Copies should also be sent to the Manager of the DOE Idaho Operations Office and to the Cognizant DOE Secretarial Office for the facilities that are the subject of this Notice. This reply should be clearly marked as a "Reply to a Preliminary Notice of Violation" and should include the following for each violation: (1) admission or denial of the alleged violations; (2) any facts set forth which are not correct; and (3) the reasons for the violations if admitted, or if denied, the basis for the denial. Corrective actions that have been or will be taken to avoid further violations will be delineated with target and completion dates in DOE's Noncompliance Tracking System. In the event the violations set forth in this PNOV are admitted, this Notice will constitute a Final Order in compliance with the requirements of 10 CFR 820.24 (d).

Any request for remission or further mitigation of civil penalty must be accompanied by a substantive justification demonstrating extenuating circumstances or other reasons why the assessed penalty should not be paid in full. Within the 30 days after the issuance of the PNOV and civil penalty, unless the violations are denied, or remission or additional mitigation is requested, BBWI shall pay the civil penalty of \$41,250 imposed under section 234a of the Atomic Energy Act by check, draft, or money order payable to the Treasurer of the United States (Account 891099) mailed to the Director, Office of Price-Anderson Enforcement Attention: Office of the Docketing Clerk, at one of the above addresses. If BBWI should fail to answer within the time specified, the contractor will be issued an order imposing the civil penalty. Should additional mitigation of the proposed

civil penalty be requested, BBWI should address the adjustment factors described in section IX of 10 CFR 820, Appendix A.



Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

Dated at Germantown, MD
this 20th day of January 2004