LBP-10-18

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
E. Roy Hawkens
Dr. Nicholas Tsoulfanidis

In the Matter of BABCOCK & WILCOX NUCLEAR OPERATIONS GROUP, INC. (Lynchburg, VA Facility)	Docket No. 70-27 EA ASLBP No. 10-902-01-EA-BD01 October 12, 2010

MEMORANDUM AND ORDER
(Approving Proposed Settlement Agreement and Dismissing Proceeding)

1. On February 23, 2010, the Nuclear Regulatory Commission Staff (NRC Staff) issued a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $32,500 (NOV) to Babcock & Wilcox Nuclear Operations Group, Inc. (licensee). The NOV related to an April 28, 2008 incident at the licensee's facility that involved the failure to have neutralized properly a spillage of hydrofluoric acid (HF). That failure, which occasioned an acute chemical exposure to licensee operators, was attributed by the Staff to "the failure to develop and implement a formalized procedure to neutralize a spill involving hydrofluoric acid."[1]

[1] Letter from Luis A. Reyes, Regional Administrator, Region II, U.S. Nuclear Regulatory Commission, to Mr. R. P. Cochrane, General Manager, Babcock and Wilcox Nuclear Operations Group, Inc. with attached Notice of Violation and Proposed Imposition of Civil Penalty (Feb. 23, 2010) (ADAMS Accession No. ML100540701) [hereinafter NOV].

2. On June 15, 2010, the NRC Staff issued an Order imposing upon the licensee a civil monetary penalty in the amount of $32,500 on the basis of a determined Severity Level III violation that the Staff identified during a March 23 through June 21, 2008 inspection that encompassed the HF spill.[2] As appeared in the Appendix to the Order, the Staff determined both that licensee operators had not received adequate instructions regarding the proper method to neutralize an HF spill and that the mislabeling of the drums containing the chemicals had been a factor in the operators' exposure to the HF. The Order further provided the licensee an opportunity to request a hearing within twenty days of its publication in the Federal Register.[3]

3. On July 2, 2010, the licensee requested a 90-day extension of the time in which to request a hearing, so as to enable the licensee and the NRC Staff to endeavor to resolve this matter without resort to an adjudicatory hearing.[4]

4. In response to that request, on July 8, 2010, the NRC Staff extended the deadline for requesting a hearing by 16 days to July 29, 2010.[5]

5. On July 27, 2010, the licensee requested a hearing in accordance with the June 15 Order and 10 C.F.R. § 2.205.[6]

---

[2] See Order Imposing Civil Monetary Penalty - $32,500 (June 15, 2010) (ADAMS Accession No. ML101580256); see also NOV; NRC Inspection Report No. 70-27/2008-002 and Notice of Violation (July 31, 2008) (ADAMS Accession No. ML082140005).

[3] See id.; 75 Fed. Reg. 35,846 (June 23, 2010).

[4] Letter from Roger Cochrane, Vice-President & General Manager, B&W Nuclear Operations Group Inc., Lynchburg, to Roy P. Zimmerman, Director, Office of Enforcement, [NRC] (July 2, 2010) (ADAMS Accession No. ML101880237).

[5] Letter from Roy Zimmerman, Director, Office of Enforcement to R. P. Cochrane, General Manager, Babcock & Wilcox Nuclear Operations Group, Inc. (July 8, 2010) (ADAMS Accession No. ML101880730).

[6] Request for Hearing (July 27, 2010).

6. This Atomic Safety and Licensing Board (Board) was established on July 29, 2010.[7]

7. On August 11, 2010, the Board granted the licensee's Request for Hearing.[8]

8. On August 13, 2010, the licensee and the NRC Staff jointly submitted a motion asking the Board inter alia[9] to hold this administrative enforcement proceeding in abeyance pending the outcome of proposed settlement negotiations.[10]

9. On August 17, 2010, the Board granted this motion, and instructed the parties to submit jointly on September 20, 2010, a report setting forth in detail the then status of negotiations and providing an estimate of their completion date.[11]

10. On September 20, 2010, the parties submitted a joint motion to approve the proposed settlement agreement and to terminate the proceeding,[12] to which they attached their proposed settlement agreement and proposed Board order. In this joint motion, the parties asserted that their settlement agreement explained the steps the licensee had taken and will

---

[7] See Establishment of Atomic Safety and Licensing Board (July 29, 2010).

[8] Licensing Board Memorandum and Order (Granting Licensee's Hearing Request, and Scheduling Telephone Prehearing Conference) (Aug. 11, 2010) at 2 (unpublished) [hereinafter Order Granting Hearing Request].

[9] In this motion, the parties also requested that the Board defer the telephone prehearing conference that the Board scheduled in its August 11, 2010, order. See Joint Motion to Defer Telephone Prehearing Conference and Hold Proceeding in Abeyance (Aug. 13, 2010) at 1 [hereinafter Joint Motion to Defer]; Order Granting Hearing Request at 2.

[10] Joint Motion to Defer at 1.

[11] Licensing Board Order (Cancelling Telephone Prehearing Conference and Holding the Proceeding in Abeyance) (Aug. 17, 2010) at 2 (unpublished).

[12] Joint Motion to Approve Settlement Agreement and Terminate Proceeding (Sept. 20, 2010) [hereinafter Joint Motion] with attached Settlement Agreement (Sept. 20, 2010) [hereinafter Settlement Agreement].

take to assure future compliance with all regulatory requirements and to comply with the purpose of the NRC enforcement program, which "is to deter noncompliance with regulatory requirements and to encourage prompt, comprehensive corrective actions."[13] The parties further maintained in the joint motion that their settlement agreement will achieve this purpose of the NRC enforcement program "without the likely litigation risks and resource costs to both parties" in litigating the NRC Staff's enforcement Order, and that it is in the public interest for the Board to approve the proposed settlement agreement and to dismiss this proceeding. In the proposed settlement agreement, which is appended to this Memorandum and Order, the parties recited the following details of the agreement:

a. Licensee will not challenge the existence of a violation of NRC requirements relating to the HF spill, and will seek dismissal of its Request for Hearing;

b. NRC Staff will recategorize the violation from a Severity Level III violation to a violation with no assigned severity level;

c. NRC Staff will, within 21 days of the issuance of the Board Order approving settlement agreement, withdraw the Order imposing civil penalty;

d. Licensee will pay $32,500, in lieu of the withdrawn civil penalty, as a settlement payment, on or before a specified date and in accordance with NUREG/BR-0254;

e. Licensee will perform one quarterly emergency drill within a twelve-month time period following the Board's approval of the settlement agreement; and

f. Licensee will give a presentation addressing lessons learned from the HF spill event at the 2011 Fuel Cycle Information Exchange.[14]

---

[13] Id. at 1.

[14] See Settlement Agreement at 2-3.

11. Given the potential severity of the HF exposure event at the heart of this enforcement proceeding, and in light of the Board's explicit authority under 10 C.F.R. §§ 2.203 and 2.338(i) to pursue adjudication of issues implicating the public interest, on September 22, 2010, the Board requested clarification from the parties regarding the extent, if any, that the proposed settlement agreement called upon the licensee to take specific measures designed to avoid a repetition of the storage tank (drum) mislabeling and insufficient operator training that led to the HF spill event that is the focus of this enforcement action.[15]

12. On October 1, 2010, the parties submitted a joint memorandum providing the clarification the Board requested.[16] In that memorandum, the parties discussed the primary corrective and improvement actions the licensee had implemented, prior to negotiating the proposed settlement agreement, to avoid recurrence of the HF spill incident, and the measures NRC Staff had taken to assure that timely, comprehensive corrective actions were taken by the licensee.[17] The parties cited the July 31, 2008 Inspection Report's description of the HF spill event and resulting exposure of two operators.[18] The parties further cited this report for its description of the steps the licensee took immediately after the HF spill event, which include:

a. Sealing and tagging out of service the NaOH and soda ash drums;

b. Making improvements to the labeling on the drums;

---

[15] Licensing Board Memorandum and Order (Requesting Clarification of Scope of Proposed Settlement Agreement) (Sept. 22, 2010) at 2.

[16] Joint Memorandum in Response to Licensing Board Memorandum and Order Requesting Clarification of Proposed Settlement Agreement (Oct. 1, 2010) [hereinafter Joint Memorandum].

[17] Id.

[18] Id. at 2-4 (citing Letter from Joseph W. Shea, Director, Division of Fuel Facility Inspection, [NRC] Region II, to R. P. Cochrane, General Manager, BWX Technologies, Inc. (July 31, 2008) enc. 2 at 2-3 (NRC Inspection Report No. 70-27/2008-002, Report Details) (ADAMS Accession No. ML082140005)).

c. Performance by area engineers of a "walk down" to ensure the licensee's HF system safety;

d. Reviewing the incident with all [uranium recovery] personnel; and

e. Initiating an investigation to identify causal factors and recommend corrective action, and licensee's completion of a root cause investigation report in which licensee identified three causal factors and proposed three corrective actions.[19]

Further, the parties listed the long-term corrective actions that the licensee had implemented following its immediate actions in response to the HF spill event.[20] In additional explanation of those long-term corrective actions, the parties noted the following specific actions taken:

a. Revision of the licensee's Operating Procedure to include specific instructions on how to neutralize acid spills and on the use of personal protective equipment (PPE);

b. Revision of the licensee's Operating Procedure for General Safety and Safeguards Guidelines to emphasize the use of PPE;

c. Revision of the licensee's applicable operating procedure in the Uranium Recovery area to ensure a spill of HF due to valve misalignment does not recur, by implementing a positive means to identify valves, which, if left in the wrong position, would result in the loss of containment of either uranium-bearing or non-uranium-bearing hazardous substances;

---

[19] Id. at 3. The three causal factors that the licensee identified in its root cause investigation report are: 1) selection and application of the wrong chemical to neutralize spill; 2) failure to don a face shield during the attempted spill neutralization; and 3) failure to close maintenance valves on HF pumps after testing them. Id. The three corrective actions licensee proposed as a result of its root cause investigation report are: 1) development/training of a site-wide procedure for responding to chemical spills; 2) establishment of spill response kits; and 3) a review of test plans to ensure they include steps to return systems to normal operations. Id.

[20] Id. at 4. The long-term measures that the licensee has undertaken subsequent to the HF spill event include: 1) conduct of a Root Cause Analysis; 2) development of a site-wide procedure for responding to chemical spills, including area-specific information; 3) appropriate procedural training; 4) conduct of an inventory of chemicals in work areas; 5) disposal of obsolete chemicals and measures to ensure proper sealing and labeling of drums with chemical agents; 6) the establishment of detailed guidance regarding the use of face shields, preparation of spill-response kits, and related personnel training; and 7) new-employee and annual training to address the hazards of acids, the use of spill kits, and the proper use of PPE. Id. (citing NOV).

d. Revision of several of the licensee's procedures to provide appropriate guidance for valve manipulations associated with the HF Day Tank; and

e. Agreement, as part of settlement with the NRC Staff, consistent with the NRC's overall enforcement program to enhance prompt medical support for any future chemical exposure event, to contribute to an industry-wide understanding of the incident, and to deter the occurrence of similar events at other NRC-licensed facilities by: 1) participating in a joint exercise with the Lynchburg General Hospital responding to a hydrofluoric acid-exposed worker, and 2) providing a presentation at the 2011 Fuel Cycle Information Exchange addressing lessons learned from the April 28, 2008 HF chemical exposure event.[21]

13. The parties' submissions in their joint memorandum satisfy the Board's concerns regarding chemical storage labeling and operator training.

14. Accordingly, upon review of the settlement agreement and the clarification that the parties provided in their joint memorandum, the terms of the proposed settlement agreement reflect a fair and reasonable resolution of this matter, are in keeping with the objectives of the NRC's Enforcement Policy, and satisfy the requirements of 10 C.F.R. § 2.338(g) and (h). Accordingly, the proposed settlement agreement is approved pursuant to 10 C.F.R. § 2.338(i). The Enforcement Order issued to the licensee on June 15, 2010 is hereby withdrawn consistent with the terms of the settlement agreement.

15. The settlement agreement, attached hereto, is incorporated into this Memorandum and Order.[22]

16. Further, in accordance with 10 C.F.R. § 2.203, the public interest does not

---

[21] See Joint Memorandum at 5-6.

[22] See Settlement Agreement.

require additional adjudication of this matter, and, given that all matters required to be adjudicated as part of this proceeding have been resolved, this proceeding is dismissed.[23]

It is so ORDERED.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD[24]

/RA/

_____
Alan S. Rosenthal, Chairman
ADMINISTRATIVE JUDGE

/RA/

_____
E. Roy Hawkens
ADMINISTRATIVE JUDGE

/RA by A. Rosenthal for:/

_____
Dr. Nicholas Tsoulfanidis
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 12, 2010

[23] As noted above, the settlement agreement provides that the NRC Staff will "recategorize" the violation from a Severity Level III to a violation with no assigned severity level. Although that step is clearly within the scope of the NRC Staff's authority, it is not apparent to us how this recategorization might affect the NRC Staff's view of the severity of this violation should there be a need to consider it in connection with the assessment of the sanction to be imposed in the event of a subsequent determined license violation by this licensee.

[24] Copies of this Memorandum and Order were sent this date by the agency's e-filing system to counsel for: (1) Licensee Babcock & Wilcox Nuclear Operations Group, Inc.; and (2) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	Docket No. EA-70-27
BABCOCK & WILCOX NUCLEAR OPERATIONS GROUP, INC.	)	ASLBP No. 10-902-EA- BD01
(Lynchburg, VA Facility)	)	September 20, 2010

SETTLEMENT AGREEMENT

Babcock & Wilcox Nuclear Operations Group, Inc. (B&W NOG) located in Lynchburg, Virginia, is the holder of U.S. Nuclear Regulatory Commission (NRC) Materials License No. SNM-42, which expires on March 29, 2027. The license authorizes B&W NOG to manufacture nuclear components for the government and commercial entities in accordance with the conditions specified therein.

On February 23, 2010, the NRC Staff issued a Notice of Violation and Proposed Imposition of Civil Penalty of $32,500 (NOV) to B&W NOG. The NOV was issued following NRC Staff inspections conducted at B&W NOG's Lynchburg, Virginia facility from March 23 through June 21, 2008, as a result of an event on April 28, 2008, in which a process operator took inappropriate actions to neutralize a spill of hydrofluoric acid (HF) by adding sodium hydroxide (NaOH), a strong base, which reacted violently with the acid on the floor. The operator sustained an ocular exposure from the flash of HF that required medical attention but did not result in long lasting health effects, due to the prompt mitigation actions taken by the operator and the onsite emergency response personnel. Notwithstanding B&W NOG's timely and effective response, the NRC Staff considered the injury to the operator to be significant. The NOV stated that B&W NOG had failed to develop and implement a formalized procedure with adequate instructions to neutralize a spill involving HF.

On March 31, 2010, B&W NOG filed a response to the NOV denying the severity level of the violation and protesting the civil penalty in its entirety. On June 15, 2010, the NRC Staff issued an Order Imposing Civil Monetary Penalty of $32,500, maintaining that B&W NOG had failed to develop and implement a formalized procedure to neutralize a spill involving HF. *See* 75 Fed. Reg. 35,846 (June 23, 2010). In the letter transmitting the Order, the NRC Staff acknowledged B&W NOG's "prompt and effective corrective actions." ADAMS Accession No. ML101580256.

On July 2, 2010, B&W NOG submitted a request for a 90-day extension to the Director of the NRC Office of Enforcement (OE). On July 8, 2010, the Director of OE granted a 16-day extension. On July 27, 2010, B&W NOG requested a hearing in accordance with the June 15, 2010 Order, 10 C.F.R. § 2.205, and the Director's extension of time. On August 11, 2010, the Atomic Safety and Licensing Board (Board) granted the hearing request.

The NRC Staff and B&W NOG have engaged in negotiations and have determined that it is in the public interest to terminate this proceeding without further litigation.

THE PARTIES AGREE TO THE FOLLOWING IN SETTLEMENT:

1. B&W NOG agrees not to challenge the existence of a violation of NRC requirements resulting from the chemical exposure event, which occurred at the B&W Lynchburg facility on April 28, 2008, and to seek dismissal of its Request for Hearing filed on July 27, 2010.

2. The Staff agrees to recategorize the February 23, 2010 NOV from a Severity Level III violation to a violation with no assigned severity level.

3. The Staff agrees to withdraw the Order Imposing Civil Penalty dated June 15, 2010, published in the *Federal Register* on June 23, 2010, 75 Fed. Reg. 35,846, within 21 days of the Board Order approving the settlement agreement on the terms set forth in the agreement.

4. B&W NOG agrees to pay $32,500, in lieu of the withdrawn civil penalty, as a settlement payment, within 30 days after the Board Order approving the settlement agreement on the terms set forth in the agreement, in accordance with NUREG/BR-0254.

5. B&W NOG agrees to perform one quarterly emergency drill with the Lynchburg General Hospital responding to a hydrofluoric acid-exposed worker, within 12 months of the date of the Board Order approving the settlement agreement on the terms set forth in the agreement.

6. B&W NOG agrees to give a presentation at the 2011 Fuel Cycle Information Exchange addressing lessons learned from the chemical exposure event, which occurred on April 28, 2008.

IN WITNESS THEREOF, B&W NOG and the NRC Staff have caused this Settlement Agreement to be executed by their duly authorized representatives on this 20th day of September, 2010.

Respectfully Submitted,

/Signed electronically by/

Molly L. Barkman
Counsel for the NRC Staff

/Executed in accord with 10 C.F.R. § 2.304(d)/

Lawrence J. Chandler
Donald J. Silverman
Morgan, Lewis & Bockius LLP
Counsel for Babcock & Wilcox Nuclear Operations Group, Inc.

Dated at Rockville, MD and Washington, DC
this 20th day of September, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
BABCOCK & WILCOX NUCLEAR	)	DOCKET NO. 70-27-EA
OPERATIONS GROUP, INC.	)	
(Lynchburg, VA Facility)	)	
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Board **MEMORANDUM AND ORDER (Approving Proposed Settlement Agreement and Dismissing Proceeding) (LBP-10-18),** dated October 12, 2010, have been served upon the following persons by Electronic Information Exchange.

U.S. Nuclear Regulatory Commission.
Atomic Safety and Licensing Board Panel
Mail Stop: T-3F23
Washington, DC 20555-0001

Administrative Judge
Alan S. Rosenthal, Chair
rsnthl@verizon.net

Administrative Judge
E. Roy Hawkens
erh@nrc.gov

Administrative Judge
Nicholas Tsoulfanidis
nicholas.tsoulfanidis@nrc.gov

Anthony C. Eitreim, Esq.
Chief Counsel
ace1@nrc.gov
Ann Hove, Law Clerk
ann.hove@nrc.gov

U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop: O-15D21
Washington, DC 20555-0001

Catherine Scott, Esq.
clm@nrc.gov
Molly Barkman, Esq.
molly.barkman@nrc.gov
Laura Goldin, Esq.
laura.goldin@nrc.gov
OGC Mail Center
OGCMailCenter@nrc.gov

U.S. Nuclear Regulatory Commission
Office of the Secretary of the Commission
Mail Stop: O-16C1
Washington, DC 20555-0001
Hearing Docket
hearingdocket@nrc.gov

U.S. Nuclear Regulatory Commission
Office of Commission Appellate Adjudication
Mail Stop: O-16C1
Washington, DC 20555-0001
ocaamail@nrc.gov

Counsel for Babcock & Wilcox
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Ave., NW
Washington, DC 20004
Lawrence J. Chandler, Esq.
lchandler@morganlewis.com
Donald J. Silverman, Esq.
dsilverman@morganlewis.com

Babcock & Wilcox Nuclear
Operations Group, Inc.
P.O. Box 785
Lynchburg, VA 24505
Barry L. Cole, Mgr., Licensing
and Safety Analysis
blcole@babcock.com

[Original signed by Linda D. Lewis]
Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 12th day of October 2010