

# BWX Technologies, Inc.

a McDermott company

## Fax Cover Sheet

To:	Brian Horn Bruce Moran NRC	Date: 3/3/2000
Phone:	301-415-8128/7871	<del><i>This Document Contains Information Proprietary To BWV Technologies</i></del>
FAX:	301 415-5390	
From:	Don Cutchins	
Phone:	1-804-522-5949	
FAX:	1-804-522-6847	
Number of Pages including this Page:	9	

**SUBJECT: FEBRUARY 2000 IAEA INSPECTION SUMMARY (REVISED)**

Gentlemen –

Attached is a summary of the IAEA activities conducted during the February, 2000 inspection. If you have any questions, please give me a call at (804) 522-5949.

Thank you,

Don Cutchins

Administrative Review

*John B. [Signature]*  
Name:

3-3-2000  
Date

E/2

**IAEA Activities at the BWXT Down Blending Facility  
February 10-17, 2000**

Inspectors from the International Atomic Energy Agency (IAEA) were at the BWX Technologies (BWXT) Down Blending Facility February 10-17, 2000 to perform the monthly interim inventory verification (IIV) and inspection. All of the items planned for the inspection were accomplished with the exception of the IAEA evaluating data collected from its enrichment monitors. A detailed summary of activities along with issues encountered follows.

**A. General IAEA Inspector Information**

1. Two of the five Agency personnel present for the inspection received facility specific training upon their arrival. The remainder had been previously trained. Total training time was approximately 4 hours per person and consisted of General Employee Safety Training, Radiation Worker Training, and Beryllium Hazards Training. All training is effective for one year.
2. All inspectors donned coveralls, high top shoe covers, head covers, cotton gloves, long wrist gloves, surgeon gloves, and breathing zone monitor for each of two entries into the facility.
3. IAEA Inspectors that participated are shown in the table below along with their role, the periods they were present, and their training expiration date. The inspectors were on site for an average of 10 hour days. The IAEA was not present on the weekend.

Inspector	Role	Arrival	Departure	Training Expiration
L. Cermak	UZOO Team, Inspection Lead, Alt. Fac. Officer	2/14/00	2/17/00	11/7/00
R. Thiele	UZOO Team, Alt. Fac. Officer	2/10/00	2/17/00	11/7/00
D. Sellinschegg	UZOO Team – Accounting Support.	2/10/00	2/17/00	11/29/00
J. Whichello	Operator Data Authenticator Box Specialist	2/14/00	2/16/00	02/14/01
T. Hughes	Instrumentation Specialist	2/14/00	2/17/00	02/14/01

Administrative Review

  
Name:

3-3-2000

Date

**B. Inspection Activities**

1. An opening meeting was conducted Thursday, February 10, 2000. Present were representatives from BWXT, the IAEA, and the U. S. Nuclear Regulatory Commission (NRC) (b)(4)

(b)(4)

Ex 4

R. Thiele emphasized that the IAEA was in a standard inspection regime and that it was important that the inspectors collect enough data to identify and resolve any concerns before they were reported as anomalies.

(b)(4)

2.

Ex 4

Ex 4

Ex 4

~~**BWXT Proprietary Information**~~

BWXT committed to working with the IAEA to restart the IAEA computers once we have identified that they have failed. The IAEA stated that the entire process could take several hours. Most of this time would be spent allowing the IAEA system to recharge its batteries and automatically restart processing. There is little BWXT can actually do other than monitor the status lights occasionally over the period to advise the IAEA of instrument status.

3. Much of the first two days of the inspection was spent discussing the Agency's need to obtain an electronic copy of BWXT's daily declarations so that they may perform a computerized analysis of the data. Preferably this analysis would be done on site.

(b)(4)



Ex 4

Ex 4

Ex 4

Ex 4

4.

(b)(4)

The IAEA requested that BWXT continue to monitor totalizer performance through the March inspection. BWXT agreed to the request.

5. The IAEA was presented with a statistical analysis conducted by BWXT on the comparison of various volume measuring instruments against the IAEA flow totalizers. This study showed that in general, the best comparison occurred using the blend tank radar probe for reporting transfer information. The study found that there was also an apparent bias in the radar probe measurements for transfers from the facility. Once this bias was taken into account the difference between the radar probes and the IAEA product flow totalizer was very small. A similar bias was noted on blendstock. Its effect is undergoing further study.
6. The facility also reported that an engineering study has commenced to derive new precision and accuracy values for all measurement instruments associated with the facility. This should be completed by the March inspection. The IAEA was please to hear this and recommended that BWXT wait until after the March inventory to introduce the new variances. They would prefer that new variances not be introduced in the middle of an inventory / material balance period. It confuses their calculations.
7. BWXT provided the IAEA with a paper copy of material transfer declarations for the period of December 17, 1999 through February 8, 2000 for on-site review and analysis.
8. The IAEA conducted an analysis of the declaration data in combination with the enrichment data obtained during the last inspection, the measurement variances reported for the instruments, and the totalizer data. They used their new computer program to perform much of the analysis. The results of this analysis are as follows:

(b)(4)

Page 6 redacted for the following reason:

-----

(b)(4)

(b)(4)

10. The IAEA experienced a two day delay entering the facility to download enrichment monitor data due to facility repairs and a process unit clean-out. Other activities were rescheduled to allow the inspection to continue. The IAEA did not express concern for the delay and understood the causes.
11. On Wednesday, February 16, 2000, the IAEA again entered the facility to download data from the enrichment monitors and review proposed locations for the next set of IAEA equipment to be installed in March. The IAEA encountered a number of problems downloading the data.

(b)(4)

The download process did not work exactly the same on each machine. The IAEA experienced difficulty determining if the download process was active or if the computer had just stopped functioning. The download on the product monitor was restarted once or twice because the system was thought to have frozen.

Ultimately all information was obtained in the five hours the IAEA was in the facility.

12. The computers being supplied by BWXT for IAEA use were set up. The PCMCIA cards for these systems still have not arrived. BWXT will follow up on the order.

13. (b)(4)

14. (b)(4)

15.

16. The IAEA agreed that BWXT could process its declarations on a weekly basis until BWXT switches to an automated data collection system for the down blending facility.

17. A spare totalizer was set up in the IAEA trailer for the inspection period and training on its use provided to the IAEA by BWXT staff.

18. (b)(4)

19.

20. The IAEA recommended that BWXT record the value of "1" for the number of batches reported on the DOE/NRC Form 741 documenting transfers.

21. A closeout was conducted on Thursday, February 17, 2000. Representatives from NRC, BWXT, and the IAEA attended. The following points were mentioned:

• (b)(4)

• (b)(4)

•

•

•

•

•

•

•

Ex 4

Ex 4

Ex 4

Ex 4

Ex 4

Ex 4

Ex 4

Ex 4

- The facility anticipated to conducting its inventory on March 24, 2000.

22. On Friday, February 18, 1999, BWXT completed its declaration of all completed blend batches up to the point the IAEA downloaded its enrichment monitor data on Wednesday of that week. This declaration was processed through the IAEA declaration data authenticator and provided on diskette to the NRC for delivery to the IAEA.

This completed the February 2000 inspection.