

~~BWXT Proprietary Information~~

**IAEA Activities at the BWXT Down Blending Facility  
April 10 - 14, 2000**

Inspectors from the International Atomic Energy Agency (IAEA) were at the BWX Technologies (BWXT) Down Blending Facility April 10-14, 2000 to perform the monthly interim inventory verification (IIV) and inspection. All of the items planned for the inspection were accomplished. A detailed summary of activities along with issues encountered follows.

**A. General IAEA Inspector Information**

1. Both of the Agency inspectors had previously received training. No further training was necessary.
2. All inspectors donned coveralls, high top shoe covers, head covers, cotton gloves, long wrist gloves, surgeon gloves, and breathing zone monitor for each entry 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
R. Thiele	UZOO Team, Inspector	4/10/00	4/13/00	11/07/00
R. Hajdusek	UZOO Team, Inspector	4/10/00	4/13/00	12/01/00

**B. Inspection Activities**

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

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- 2.
3. The IAEA serviced its enrichment monitors the afternoon of Monday, April 10, 2000. The process continues to be a long one even with the reduced data being recorded. The IAEA feels that much of the time is being spent with the computer clearing old data and rebuilding a "zip" file for data transfer to the flashcard. The IAEA is expecting the software to be changed in the near future.

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Administrative Review

Joseph P. St. Louis  
Name:

5-1-2000  
Date

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Finally, BWXT advised the IAEA that unforeseen situations can be expected to occur at an operating facility and that the facility will always take what ever actions are necessary to safely remedy the problem.

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8. The IAEA recommended that the facility hold revisions to its DIQ until the Agency decides if it will change its safeguards approach based on the information presented above. This may affect some of the information BWXT needs to supply.
9. The IAEA provided BWXT with a copy of STR-69, Rev. 3, "Destructive Analysis and Evaluation Services for Nuclear Material Accountability Verifications" dated October 1996 and a brief outline of sampling procedures to be used for the IAEA calibration samples.
10. The NRC reported that the U.S. has not come to a conclusion on drawing the IAEA calibration samples outside of UZOO.
11. The NRC reported that the data handling issue surrounding the daily declarations is still being worked at the U.S. government level and that progress is being made.
12. The IAEA brought a PCMCIA card reader that attached to a computer's universal serial bus (USB) connection to test. There was insufficient time to perform the test. BWXT reported that the newly ordered card reader had not arrived. BWXT has been attempting to obtain such a device for the past few months without success.
13. BWXT reported that between inspections the new operator data authenticator box and all flashcards provided by the Agency had received a security inspection. In addition the new authenticator box had been installed and appeared to be working properly.

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14. The IAEA was planning for the new flow monitor to be shipped in May. This will not happen until June at the earliest. BWXT confirmed the new location for the cabinet and that plant air would be made available. The IAEA requested that a representative of the flow

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meter manufacturer be allowed to enter the facility to install it. BWXT agreed to the request, but the IAEA would need to supply basic information on the individual to BWXT at least 30 days in advance to work through the necessary security approvals. The IAEA was advised that security could still disapprove the visit.

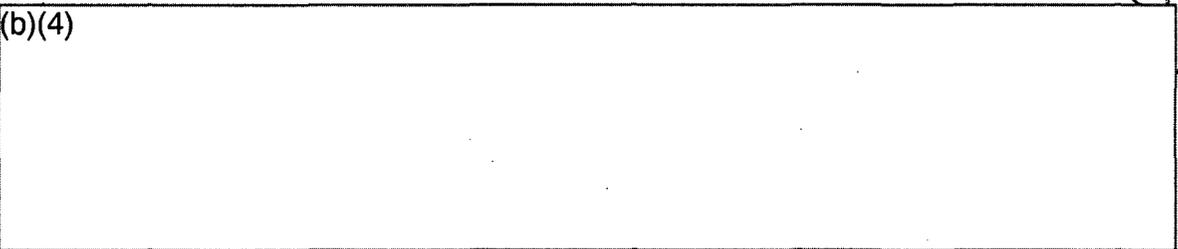
15. The new flow meters and data collection equipment will consist of two detector sets and two instrument enclosures. A description of the equipment and IAEA installation requirements follow. The IAEA provided photos and diagrams.

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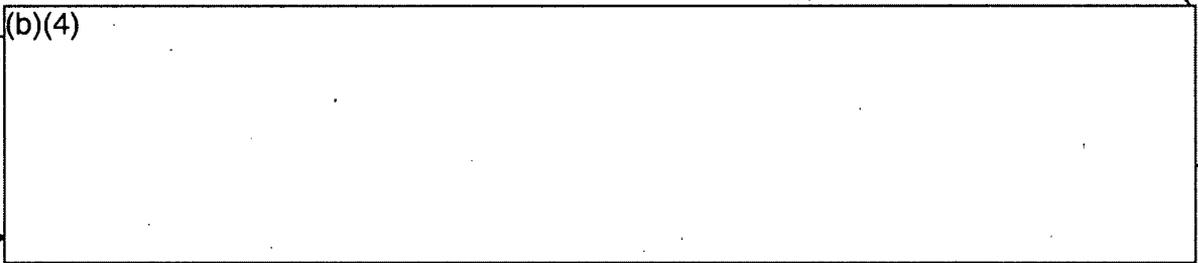


- The IAEA also requested some piping to be set up in the IAEA trailer along with a totalizer to field test the system before it is installed. BWXT agreed.

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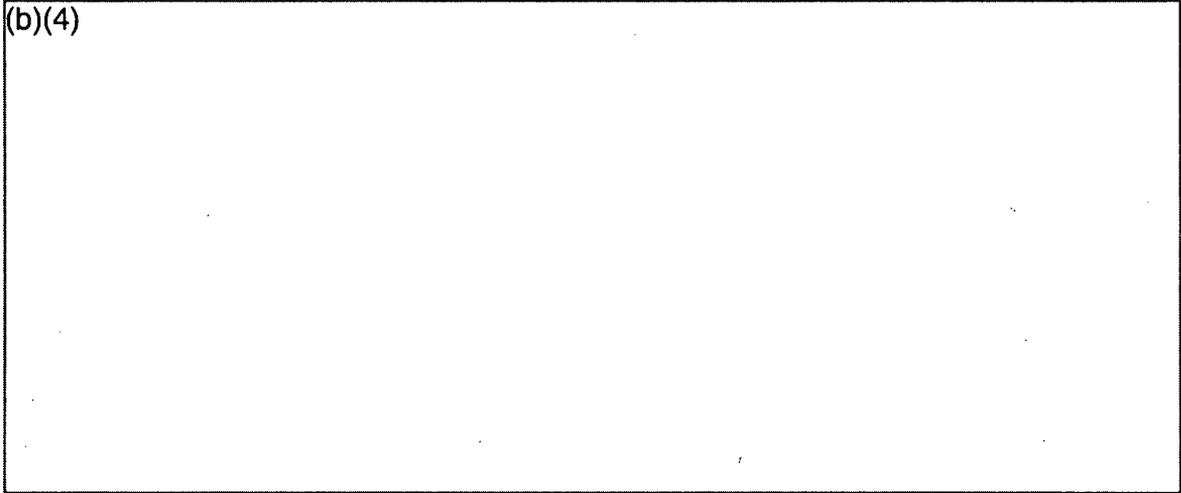


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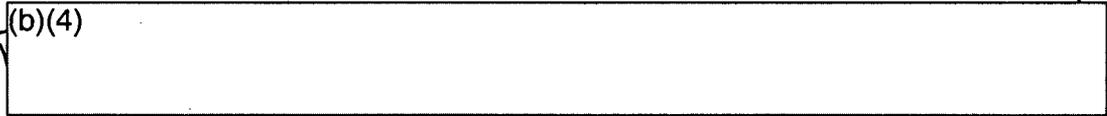
17. Totalizer Information:

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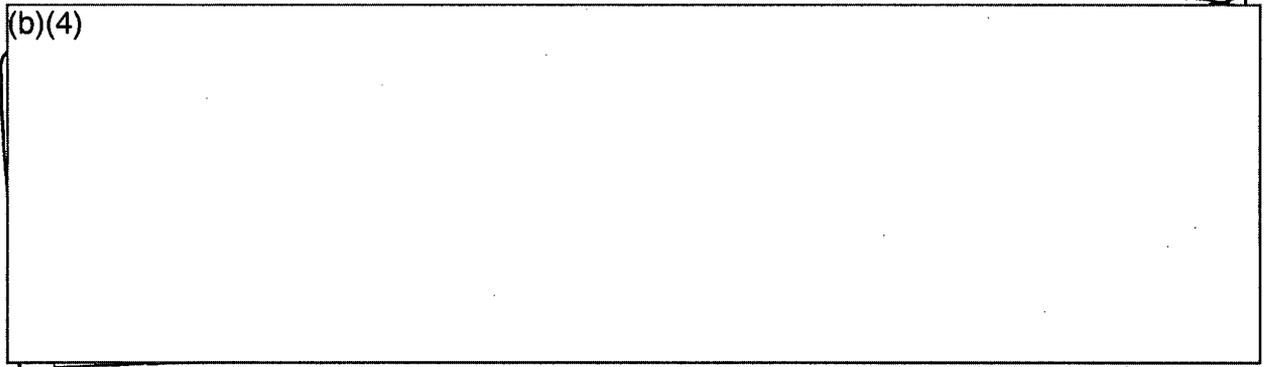
- The IAEA noted that months have been spent addressing possible solutions but that the root problem has not been identified.

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- BWXT agreed to continue monitoring the totalizer performance.

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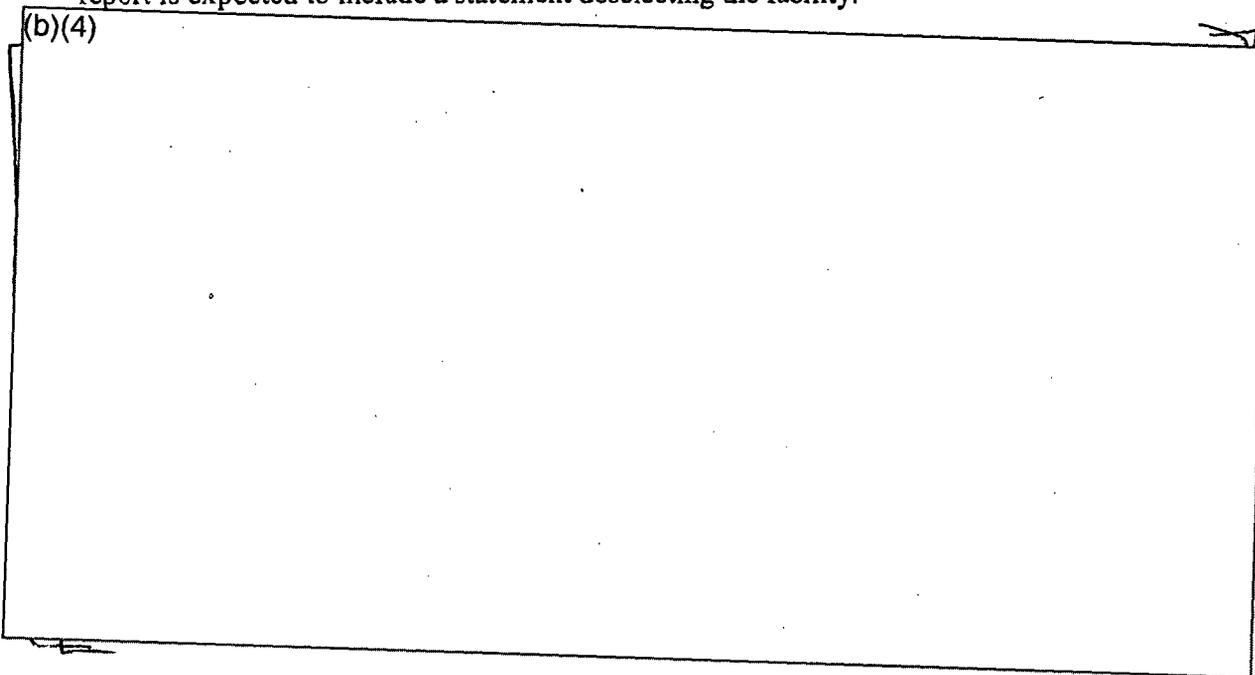
18. BWXT reported that they have calculated new variances for the instruments and are using them for this material balance period. The variances have been applied to the first 50 MT campaign. The effect of the variances on material unaccounted for (MUF) for this campaign are being included in a concise note to the Agency. Documents associated with the new variances and their effect on the MUF were reviewed with the IAEA.

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19. BWXT also reported that there were no blend batches completed between the inventory taken on March 24, 2000 and April 1, 2000 so the material balances reported at the PIT are the final numbers for March.

20. The IAEA reported that the final report on UXUY is on its way out of the Agency. This report is expected to include a statement deselecting the facility.

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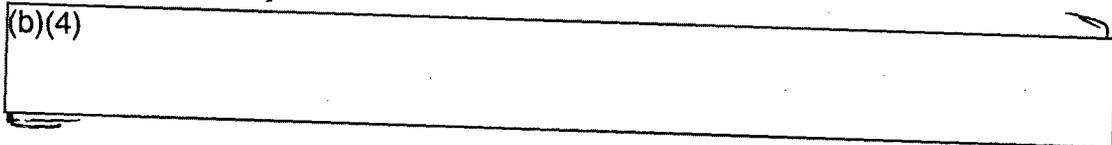


24. The IAEA is to provide feedback on the declaration data it has received to date and whether or not BWXT still needs to transmit both authenticated and unauthenticated files.

25. BWXT presented the following documents to the IAEA. All documents were classified and provided for on site review only, unless otherwise noted.

- A summary of daily totalizer readings from December 1999 to March 24, 2000 and another for the period of March 25, 2000 to April 10, 2000. The reports also compared declared transfers and other operator recorded data to the totalizer readings. The IAEA was allowed to keep this unclassified document.

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- General ledger showing monthly transactions from December 1999 through March 24, 2000. (There were no transactions for the remainder of March, so these are the final March values as well.)
- Detailed daily declarations for the first 50 MT campaign showing the effect of new bias calculations on the totals.

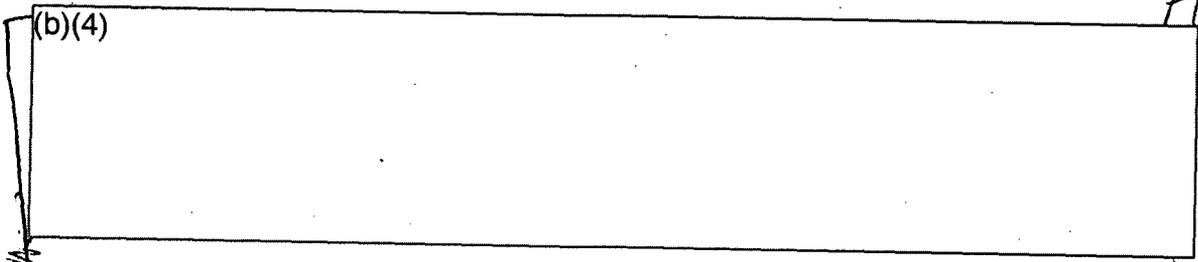
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- Daily declarations from March 25, 2000 through April 10, 2000. This report was sorted several ways to provide summary data the IAEA could use in their reports.
- Variance for laboratory chemistry assay of blended product samples. This information is unclassified and the IAEA was provided a copy.
- BWXT fax to the flow totalizer manufacturer detailing the problems being encountered. The IAEA was allowed to keep a copy of this unclassified document.

26. A closeout was conducted on the afternoon of Wednesday, April 12, 2000. The IAEA reported:

- It accomplished what it intended in three days instead of five.

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- It appreciates the efforts of and the good relationship with BWXT.
- The next inspection would be the middle of May. The following one is anticipated for the week of June 19.