



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

[REDACTED]

January 25, 2007

Mr. R. P. Cochrane, General Manager  
BWX Technologies, Inc.  
Nuclear Products Division  
P. O. Box 785  
Lynchburg, VA 24505-0785

SUBJECT: NRC INSPECTION REPORT NO. 70-27/2006-009

Dear Mr. Cochrane:

This refers to the inspection conducted from November 12 through December 31, 2006, at the Nuclear Products Division facility. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed report.

Areas examined during the inspection included: Plant Operations, Management Organization and Controls, Material Control and Accounting, and Transportation. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

Within the scope of the inspection, no violations or deviations were identified.

[REDACTED]

Should you have any questions concerning this letter, please contact us.

Sincerely,

**/RA/ M. Crespo acting for**  
David A. Ayres, Chief  
Fuel Facility Inspection Branch 1  
Division of Fuel Facility Inspection

Docket No. 70-27  
License No. SNM-42

Enclosure: NRC Inspection Report

cc w/encl: (See page 2)

[REDACTED]

R. P. Cochrane

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cc w/encl:

Leah R. Morrell  
Manager, Licensing and Safety Analysis  
BWX Technologies  
P. O. Box 785  
Lynchburg, VA 24505-0785

Leslie P. Foldesi, Director  
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See previous concurrence page



ADAMS: X Yes      ACCESSION NUMBER: \_\_\_\_\_

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|--------------|------------|------------|-------------|----------|----------|----------|
| OFFICE       | RII:DFFI   | RII:DFFI   | RII:DFFI    |          |          |          |
| SIGNATURE    | AG 1/19/07 | AG 1/19/07 | DMC 1/27/07 |          |          |          |
| NAME         | G Wertz:   | A. Gooden  |             |          |          |          |
| DATE         | 01/19/2007 | 01/23/2006 | 5/ /2008    | 5/ /2008 | 5/ /2008 | 5/ /2008 |
| E-MAIL COPY? | YES        | YES        | YES NO      | YES NO   | YES NO   | YES NO   |

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REGION II



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Docket No.: 70-27

License No.: SNM-42

Report No.: 70-27/2006-009

Licensee: BWX Technologies, Inc.

Facility: Nuclear Products Division

Location: Lynchburg, Virginia

Dates: November 12 through December 31, 2006

Inspector: G. Wertz, Senior Resident Inspector

Approved by: David A. Ayres, Chief  
Fuel Facilities Inspection Branch 1  
Division of Fuel Facility Inspection

Enclosure

[REDACTED]



## EXECUTIVE SUMMARY

BWX Technologies, Inc., Nuclear Products Division  
NRC INSPECTION REPORT 70-27/2006-009

This inspection included periodic observations conducted by the Senior Resident Inspector during normal and off-normal shifts in the areas of Plant Operations, Management Organization and Controls, Material Control and Accounting, and Transportation.

### Plant Operations

- The facility was operated safely in accordance with approved procedures and nuclear criticality safety postings (Paragraph 2.a).

### Management Organization and Controls

- Items Relied On For Safety (IROFS) at the Lynchburg Technology Center were evaluated, implemented and maintained as described in Safety Analysis Report 15.40. A corrective action was initiated to ensure that the Lynchburg Technology Center procedures properly documented testing of IROFS (Paragraph 3.a).
- Changes affecting IROFS for a [REDACTED] development work were properly reviewed and evaluated (Paragraph 3.b).

### Material Control and Accounting

- [REDACTED]

### Transportation

- [REDACTED] were packaged for shipment in accordance with the requirements of the Certificate of Compliance (Paragraph 5).

Attachment:  
Partial Listing of Persons Contacted  
Inspection Procedures Used  
List of Items Opened, Closed and Discussed



[REDACTED]

## REPORT DETAILS

### 1. Summary of Plant Status

Routine fuel manufacturing operations and maintenance activities were conducted in the fuel process areas and in the [REDACTED] facility. Uranium recovery was conducted in the [REDACTED] facility.

[REDACTED]

### 2. Plant Operations (Inspection Procedure (IP) 88135)

#### a. Inspection Scope and Observations

The inspector observed special nuclear material (SNM) operations and determined that the facility was operated safely. The inspector observed that work was performed in accordance with approved operating procedures (OPs), nuclear criticality safety (NCS) postings, and radiation work permits (RWPs). The inspector observed that controls used to contain dispersible radioactive material in material access areas (MAAs) were in proper working condition and that personal protective clothing and dosimetry were properly worn. Routine fire safety tours verified that fire safety systems were maintained and housekeeping was sufficient to minimize fire risk. The Emergency Operations Center (EOC) was maintained in a state of readiness.

#### b. Conclusions

The facility was operated safely in accordance with procedures and NCS postings.

### 3. Management Organization and Controls (IP 88135)

#### a. Lynchburg Technology Center Safety Review

##### (1) Inspection Scope and Observations

The inspector reviewed Items Relied On For Safety (IROFS) listed in Safety Analysis Report (SAR) 15.40, "Lynchburg Technology Center (LTC)." The review focused on IROFS designated as active or passive engineered controls. The inspector reviewed the associated Process Hazards Analysis (PHA) accident scenarios including the Frequency, Protection and Likelihood determinations. Management measures associated with several IROFS were described in the following procedures:

[REDACTED]

[REDACTED]

- Area Operating Procedure, [REDACTED], "Procedure for Operating [REDACTED], [REDACTED]," Revision 4
- Area Operating Procedure, [REDACTED], "General Operating Procedures [REDACTED], [REDACTED]," Revision 9
- RP-09-11, "Operation of the Liquid Waste Disposal Facility [REDACTED]," Revision 5
- RP-09-12, "[REDACTED]," Revision 4

The inspector also reviewed RP Technical Work Record (RPTWR) 05-018 which had recently evaluated active engineered and enhanced administrative controls. The inspector discussed an apparent testing discrepancy with the Safety and Licensing Manager who resolved the issue. In doing so, the manager identified that the LTC testing procedures had not been implemented to the standards contained in Quality Work Instruction (QWI) 9.1.7, "Preventive/Predictive Maintenance and Safety Related Controls Program", Revision 6. Corrective action (CA) BWX-2013309 was initiated to review and upgrade applicable LTC procedures.

(2) Conclusions

IROFS at the LTC were evaluated, implemented and maintained as described in SAR 15.40. A CA was initiated to ensure that LTC procedures properly documented testing of IROFS.

b. Review of [REDACTED]

(1) Inspection Scope and Observations

In support of the [REDACTED] project, engineers requested changes to an SNM processing system which included the replacement of existing IROFS. The inspector reviewed the changes as documented in Safety Evaluation Request 06-047, Phase 1, and NCS-2006-209. The changes, including the accident scenarios affected by the IROFS replacement, were properly evaluated in accordance with QWI 5.1.7, "Safety Evaluation Requests."

(2) Conclusions

Changes affecting IROFS for an SNM processing system involving [REDACTED] work were properly reviewed and evaluated.

4. Material Control and Accounting (IP 88135)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5. **Transportation (IP 88135)**

a. **Inspection Scope and Observations**

The inspector observed workers load [REDACTED] for shipment to the [REDACTED]. The shipping packages were loaded in accordance with the requirements listed in Container Specification and Inspection Report for Certificate of Compliance (COC) 9246. The container end plate bolt torque [REDACTED].

b. **Conclusions**

[REDACTED] were packaged for shipment in accordance with the requirements of the COC.

6. **Exit Meeting**

The inspection scope and results were summarized on January 9, 2007, with R. Cochrane, General Manager, and other members of the licensee's staff. Although proprietary information and processes were reviewed during this inspection, proprietary information was not included in this report. No dissenting comments were received from the licensee.

[REDACTED]

[REDACTED]

ATTACHMENT

1. **LIST OF PERSONS CONTACTED**

J. Burch, Manager, Operations  
R. Cochrane, General Manager  
J. Creasey, Manager, Uranium Processing  
R. Hogg, Acting Manager, Nuclear Criticality Safety  
L. Morrell, Manager, Licensing & Safety Analysis  
T. Nicks, Manager, Security  
S. Schilthelm, Manager, Safety and Licensing  
D. Spangler, Manager, Radiation Protection  
M. Suwala, Manager, Nuclear Materials Control  
D. Ward, Manager, Environment, Safety, Health and Safeguards

Other licensee employees contacted included engineers, technicians, production staff, security, and office personnel.

2. **INSPECTION PROCEDURES USED**

IP 88135      Resident Inspection Program for Category I Fuel Cycle Facilities

3. **LIST OF ITEMS OPENED AND CLOSED**

None

[REDACTED]