



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II

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March 8, 2018

Mr. B. J. Burch
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P.O. Box 785
Lynchburg, VA 24505-0785

**SUBJECT: BWXT NUCLEAR OPERATIONS GROUP – PROGRAM ADJUSTMENT REVIEW
OF LICENSED ACTIVITIES (NUCLEAR REGULATORY COMMISSION
INSPECTION REPORT 70-27/2018-001)**

Dear Mr. Burch:

The U.S. Nuclear Regulatory Commission (NRC) staff in our Region II office, the Office of Nuclear Material Safety and Safeguards, and the Office of Nuclear Security and Incident Response completed a periodic review of the BWXT Nuclear Operations Group (BWXT NOG) performance in conducting NRC licensed activities. In accordance with Inspection Manual Chapter (IMC) 2604, "Licensee Performance Review," the program adjustment review provides an opportunity for adjustments to the program to reflect emergent performance issues that may reveal themselves during the routine 24-month performance assessment period. The current 24-month performance assessment period for BWXT NOG extends from January 1, 2017, through December 31, 2018.

The program adjustment review covered licensee activities from January 1, 2017 through December 31, 2017. BWXT NOG was evaluated in the following performance areas: Safety Operations, Safeguards, Radiological Controls, Facility Support, and Other Areas. No additional letter will be sent addressing the Safeguards Area.

Overall, the staff determined that a program adjustment in the performance area of Safety Operations is warranted. This adjustment is based on three violations identified through an event that resulted in the unidentified accumulation of material in a glovebox ventilation desiccant purification system. This event was reported to the NRC Operations center on July 4, 2017, (EN 52840) and the results of the subsequent inspection were documented in NRC Inspection Report (IR) 70-27/2017-007 (ML17251A001). The NRC staff determined that three violations were warranted and documented in IR 70-27/2018-006 (ML18067A098). The violations were determined to be related to a lack of adequate process safety information for the ventilation system. As a result, the NRC plans to conduct additional inspections. The areas to be inspected relate directly to the cause of the deficiency in maintaining adequate process safety information for the glovebox ventilation system and will focus on operations, plant modifications, and nuclear criticality safety processes. Specifically, the NRC inspection will include reviewing BWXT's extent of condition and corrective actions associated with processes involving nuclear criticality safety evaluations and revisions, the evaluation of systems and establishment of safety controls, and the evaluation and processing of system modifications.

Therefore, the NRC plans to adjust the core inspection program for a Category I Fuel Facility as described in NRC IMC 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program," by adding one additional inspection (approximately 60 hours), for the period of January 1, 2018, through December 31, 2018.

Unresolved items (URIs) were opened during the conduct of Temporary Instruction (TI) 2600/015, "Evaluation of Licensee Strategies for the Prevention and/or Mitigation of Emergencies at Fuel Facilities." The NRC issued Generic Letter (GL) 2015-01 "Treatment of Natural Phenomena Hazards in Fuel Cycle Facilities" (ADAMS Accession No. ML14328A029) to request that licensees submit information to demonstrate compliance with regulatory requirements regarding the treatment of natural phenomena hazard (NPH) events in the facilities' integrated safety analysis (ISA). NRC conducted an announced inspection during the week of May 5, 2017 in accordance with TI 2600/016, "Inspection of Activities Associated with NRC Generic Letter 2015-01" (ADAMS Accession No. ML16293A899) to independently verify that BWXT NOGs response to the GL adequately evaluates NPH events in your facility ISA. In addition, this inspection was used to follow-up with previously identified URIs regarding the treatment of NPH events, and to inform the closure process of NRC GL-2015-01. NRC concluded that the BWXT NOG ISA adequately addressed potential hazards as a result of NPH events, therefore, the URIs opened during the conduct of TI 2600/015 were closed during the inspection.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please refer questions and comments regarding your Licensee Performance Review to Mr. Eric Michel, Chief, Projects Branch 2, by telephone at 404-997-4555.

Sincerely,

/RA/

Mark S. Lesser, Director
Division of Fuel Facility Inspection

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

Enclosure:
Program Adjustment Review

cc: (See page 3)

cc:

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OF LICENSED ACTIVITIES (NUCLEAR REGULATORY COMMISSION
INSPECTION REPORT 70-27/2018-001) - MARCH 1, 2018**

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DOCUMENT NAME: G:\DFFI\ASSESS LPR\BWXT NOG\2018 MID-CYCLE\BWXT 2018 PROGRAM ADJUSTMENT

**PROGRAM ADJUSTMENT REVIEW FOR
BWXT NOG
ASSESSMENT PERIOD: JANUARY 1, 2017 TO DECEMBER 31, 2017**

The following is a summary of the performance of BWXT NOG in the conduct of NRC licensed activities.

PERFORMANCE AREA: SAFETY OPERATIONS

This area is comprised of plant operations, nuclear criticality safety, and fire protection.

During the program adjustment assessment period, the following enforcement items were issued in the area of Safety Operations:

- Failure to ensure that high consequence accident sequences remain highly unlikely as required by 10 CFR 70.61(b). This Severity Level III violation was tracked as 70-27/2018-006-001, associated with a Severity Level III problem.
- Failure to assure that under normal and credible abnormal conditions, the UAl_x glovebox air purifier system was subcritical as required by 10 CFR 70.61(d). This Severity Level III violation was tracked as 70-27/2018-006-002, associated with a Severity Level III problem.
- Failure to maintain adequate process safety information for process systems associated with the UAl_x glovebox systems as required by 10 CFR 70.62(b). This Severity Level III violation was tracked as 70-27/2018-006-003, associated with a Severity Level III problem.

Program Areas Needing Improvement

- A program adjustment was identified in Safety Operations, due to three related violations identified and assessed as a single safety significant issue as defined in IMC 2604, "Licensee Performance Review."

Recommended NRC Inspection Effort

- The core inspection program will be adjusted to conduct additional inspections effort addressing operations and nuclear criticality safety that review the extent of condition and corrective actions associated with the failure to maintain adequate process safety information resulting in the three violations assessed as a single Severity Level III problem. Expanded inspection effort in the area of plant modifications will also be required to directly support this effort. This expanded effort regarding plant modifications remains within the current core program requirements established in IMC 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program."

PERFORMANCE AREA: SAFEGUARDS

This area is comprised of material control and accounting (MC&A), physical protection of special nuclear material, and information security.

Program Areas Needing Improvement

- Two violations were identified during the assessment period. No specific program adjustment was identified in Safeguards.

Recommended NRC Inspection Effort

- Maintain the core inspection effort in Safeguards.

PERFORMANCE AREA: RADIOLOGICAL CONTROLS

This area is comprised of radiation protection, environmental protection, waste management, and transportation.

Program Areas Needing Improvement

- No specific program adjustment was identified in Radiological Controls.

Recommended NRC Inspection Effort

- Maintain the core inspection effort in Radiological Controls.

PERFORMANCE AREA: FACILITY SUPPORT

This area is comprised of maintenance and surveillance, training, emergency preparedness, management organization and controls, and permanent plant modifications.

Program Areas Needing Improvement

- No specific program adjustment was identified in Facility Support.

Recommended NRC Inspection Effort

- Maintain the core inspection effort in Facility Support.

PERFORMANCE AREA: OTHER AREAS

This area is comprised of special issues.

Program Areas Needing Improvement

- One violation was identified during the assessment period. No specific program adjustment was identified in Other Areas.

Recommended NRC Inspection Effort

- Maintain the core inspection effort in Other Areas.