

July 15, 2011

EN 46589

Mr. Roger P. Cochrane, General Manager
Babcock and Wilcox Nuclear Operations Group, Inc.
P.O. Box 785
Lynchburg, VA 24505-0785

SUBJECT: INSPECTION REPORT NO. 70-0027/2011-203 AND NOTICE OF VIOLATION

Dear Mr. Cochrane:

The U.S. Nuclear Regulatory Commission (NRC) conducted a routine announced nuclear criticality safety (NCS) inspection at your Babcock and Wilcox Nuclear Operations Group, Inc. facility in Lynchburg, Virginia, June 13-16, 2011. The purpose of the inspection was to determine whether activities involving special nuclear materials were conducted safely and in accordance with regulatory requirements. Observations and findings were discussed with members of your management and staff throughout the inspection and at an exit meeting held on June 16, 2011.

The inspection, which is described in the enclosure, focused on: (1) the most hazardous activities and plant conditions; (2) the most important controls relied on for safety and their analytical basis; and (3) the principal management measures for ensuring controls are available and reliable to perform their functions relied on for safety. The inspection consisted of analytical basis review, selective review of related procedures and records, examinations of relevant NCS-related equipment, interviews with NCS engineers and plant personnel, and facility walkdowns to observe plant conditions and activities related to safety basis assumptions and related NCS controls. Throughout this inspection, observations were discussed with your managers and staff. Based on the inspection, your activities involving nuclear criticality hazards were found to be conducted safely and in accordance with regulatory requirements.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy that is found on the NRC's web site at www.nrc.gov; select What We Do, then navigate to Enforcement, then Enforcement Policy. The violation is being cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding it are described in detail in the subject inspection report. The violation is being cited in the Notice because it was self-revealing due to an event. The violation that is being cited as a Severity Level IV violation is the failure of the licensee to limit the risk of a nuclear criticality accident in the container control area in uranium recovery.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390 of NRC's "Rules of Practice," a copy of this letter and the enclosure will be made publicly available in the public electronic reading room of the NRC's Agency-Wide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/ADAMS.html>.

If you have any questions concerning this report, please contact Thomas Marenchin, of my staff, at 301-492-3209.

Sincerely,

/RA/

Margie Kotzalas, Acting Chief
Technical Support Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

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

Enclosure: Inspection Report No. 70-0027/2011-201

cc: Barry Cole
Licensing Officer
Babcock and Wilcox
Nuclear Operations Group, Inc.

If you have any questions concerning this report, please contact Thomas Marenchin, of my staff, at 301-492-3209.

Sincerely,

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Margie Kotzalas, Acting Chief
Technical Support Branch
Division of Fuel Cycle Safety
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Office of Nuclear Material Safety
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Docket No.: 70-27
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Enclosures:

1. Notice of Violation
2. Inspection Report No. 70-0027/2011-203

cc: Barry Cole
Licensing Officer
Babcock and Wilcox
Nuclear Operations Group, Inc.

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NOTICE OF VIOLATION

B&W NOG, Inc.
Lynchburg, VA

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

During an Nuclear Regulatory Commission (NRC) inspection from June 13 through 16, 2011, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 70.61(a) states, in part, that each licensee shall evaluate in the integrated safety analysis performed in accordance with 10 CFR 70.62 its compliance with the performance requirements in paragraphs (b), (c), and (d) of this section.

10 CFR 70.61(d) states, in part, that the risk of nuclear criticality accidents must be limited by assuring that under normal and credible abnormal conditions, all nuclear processes are subcritical, including use of an approved margin of subcriticality for safety.

Contrary to the above, on and before February 2, 2011, the licensee failed to limit the risk of a nuclear criticality accident in the container control area (CCA) in uranium recovery. Specifically, the licensee failed to prohibit unfavorable geometry containers into the CCA by procedure and independent verification had failed to identify the utility box in the uranium recovery area.

This is a Severity Level IV Violation (Supplement 6.2).

Pursuant to the provisions of 10 CFR 2.201, B&W NOG, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with copies to the Chief, Technical Support Branch, Division of Fuel Cycle Safety and Safeguards, NMSS, and Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other actions as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Enclosure 1

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room (PDR), or from the NRC's Agency-Wide Document Access and Management System (ADAMS), accessible from the NRC web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld, and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 15th day of 2011

**U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS**

Docket No.: 70-27

License No.: SNM-42

Report No.: 70-27/2011-203

Licensee: Babcock and Wilcox Nuclear Operations Group, Inc.

Location: Lynchburg, Virginia

Inspection Dates: June 13-16, 2011

Inspectors: Thomas Marenchin, Criticality Safety Inspector
Tamara Powell, Criticality Safety Inspector

Approved by: Margie Kotzalas, Acting Chief
Technical Support Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosure 2

EXECUTIVE SUMMARY

Babcock and Wilcox Nuclear Operations Group, Inc. NRC Inspection Report 70-27/2011-203

Introduction

Staff of the U.S. Nuclear Regulatory Commission (NRC) performed a routine and announced nuclear criticality safety (NCS) inspection of the Babcock and Wilcox (B&W) Nuclear Operations Group, Inc., Lynchburg, Virginia (VA), facility from June 13-16, 2011. The inspection included an on-site review of the licensee's NCS program, NCS-related inspections, audits and investigations, plant operations and open item review. The inspection focused on risk-significant fissile material processing activities including fuel fabrication and machining; the uranium recovery (UR) area; the Research, Test Reactor and Target (RTRT) area; the Specialty Fuels Facility (SFF); Advanced Gas Reactor (AGR) Compact Area; and the core assembly area.

Results

- A severity level IV violation was identified for the failure to maintain items relied on for safety IROFS credited in the integrated safety analysis (ISA) to meet the performance requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 70.61.
- No safety concerns were identified regarding the licensee's NCS program or the development, review, or approval of NCS analysis or calculations or resulting NCS controls.
- No safety concerns were noted regarding licensee internally-reported NCS-related events including identification and tracking of corrective actions.
- No safety concerns were identified regarding licensee NCS audits.
- No safety concerns were identified regarding the licensee's controlled access areas coverage of fissile material operations.
- No safety concerns were identified during facility walkdowns.

REPORT DETAILS

1.0 Summary of Plant Status

B&W Nuclear Operations Group, Inc., manufactures high-enriched uranium fuel, reactor core components and reactor cores at its facility near Lynchburg, VA. During the inspection, the licensee conducted routine fuel manufacturing operations and maintenance activities in the fuel fabrication areas. The UR area was shut down for semiannual inventory activities.

2.0 Nuclear Criticality Safety Program (IP 88015 & IP 88016)

a. Inspection Scope

The inspectors reviewed NCS analyses to determine that criticality safety of risk-significant operations was assured through engineered and human controls with adequate safety margin and preparation and review by qualified staff. The inspectors reviewed selected aspects of the following documents:

- CA-201100409, "Container Control Area [CAA]," dated February 2, 2011
- CA-200800401, "Pinning Table," dated June 15, 2011
- COM-28854, "Case Study of the Modified NCS Analytical Process," dated December 17, 2010
- CR-1029549, "Partition to Separate Pinning Tables in Bay 7AA," dated October 14, 2008
- NCS-2011-067, "Justification for New Advanced Test Reactor (ATR) Swage Machine," dated April 28, 2011
- NCS-2011-066, "NCS Analysis per SER [Safety Evaluation Report] 10-032, SER-10-042, and SER 10-053, Removal of Raschig Rings from Uranium Recovery Operations," dated April 14, 2011
- NCS-2011-058, "NCS Analysis for SER-10-045 Phase 1, 'Permanent Shutdown of Downblend,'" dated May 19, 2011
- NCS-2011-044, "NCS Evaluation to Disassemble Damaged ATR Element," dated March 29, 2011
- NCS-2011-040, "NCS Safety Analysis for the Container Controlled Area," dated April 28, 2011
- NCS-2011-035, "NCS Release for Over Coater and Matrix Feed Hopper Cleanout," dated February 24, 2011
- NCS-2011-031, "NCS Safety Evaluation to Close out SAR 15.38 IROFS Verification Corrective Actions," dated March 14, 2011
- NCS-2011-026, "Safety Concern Analysis for Unfavorable Geometry Utility Boxes in the CCA," dated February 14, 2011
- NCS-2011-020, "NCS Justification Analysis for CR-1035417, Temporary Posting for Dissolution of Scrap In PDL Laboratory," dated February 7, 2011
- NCS-2010-017, "Revised NCS Justification Analysis for Phase 01 and 02 of SER 09-046," dated January 20, 2010
- NCS-2010-012, "Revised NCS Justification Analysis for Phase 01, 02, and 03, of SER 09-046," dated January 13, 2010
- NCS-2008-190, "Safety Concern Analysis for Violating the Minimum 12 inch e-t-e spacing requirement for the Pinning Table," dated October 10, 2008

- NCSE-02, "Nuclear Criticality Safety Analyses and Quality Assurance Reviews," Revision 40, dated March 1, 2011

b. Observations and Findings

The inspectors reviewed NCS approvals, NCS evaluations, and supporting calculations for new, changed, and other selected operations. Within the selected aspects reviewed, the inspectors verified that the analyses were performed by qualified NCS engineers, that independent reviews of the evaluations were completed by qualified NCS engineers, and that the analyses provided for sub-criticality of the systems and operations. The inspectors observed that the analyses contained appropriate limits on controlled parameters for each credible accident sequence leading to inadvertent criticality. Nuclear criticality safety analyses and supporting calculations demonstrated adequate identification and control of NCS hazards to assure operations within subcritical limits.

c. Conclusions

No safety concerns were identified regarding the licensee's NCS program or the development, review, or approval of NCS analysis or calculations or resulting NCS controls.

3.0 Nuclear Criticality Safety Event Review and Follow-Up (IP 88015 & IP 88016)

a. Inspection Scope

The inspectors reviewed the licensee response to internally reported events. The inspectors reviewed the progress of investigations and interviewed licensee staff regarding immediate and long-term corrective actions. The inspectors reviewed selected aspects of the following documents:

- QWI [Quality Work Instruction] 14.1.1, "Preventive/Corrective Action System," Revisions 19, dated September 27, 2010
- QWI 14.1.4, "Reporting Unusual Incidents," Revisions 10, dated January 2010
- QWI 14.1.10, "Safety Evaluation of Unusual Incidents," Revision 12, dated September 2009
- NCS-2011-021, "Safety Concern Analysis for Overloading of Cart with Dummy Fuel Elements (CA201100333)," dated February 7, 2011
- NCS-2011-024, "Safety Concern Analysis for Placing Fuel Elements on a Non-Fuel Cart (CA201100450)," dated February 8, 2011
- NCS-2011-043, "30-Day Report to the General Manager for CA201100450 and CA201100612, Fuel Elements on a Non-Fuel Cart," dated March 3, 2011
- NCS-2011-045, "Safety Concern Analysis for Automated Filler Storage Unit Pan Found Non-Secured (CA201100713)," dated March 14, 2011
- NCS-2011-055, "Safety Concern Analysis for Recovery Steam Condenser Failed Integrity Testing (CA201100843)," dated March 17, 2011
- NCS-2011-059, "30-Day Report to the General Manager for CA201100713, Automated Filler Storage Unit Pan Found Not Secured," dated March 29, 2011
- NCS-2011-064, "Safety Concern Analysis for Overpickling of Elements (CA201101072)," dated April 7, 2011

- NCS-2011-071, "30-Day Report to the General Manager for CA201100843, Recovery Steam Condenser Failed Integrity Testing," dated April 14, 2011
- NCS-2011-101, "Safety Concern Analysis for Recovery Low Level Dissolver (CA201101698)," dated June 8, 2011

b. Observations and Findings

The inspectors reviewed selected licensee internally-reported events. The inspectors determined that internal events were investigated in accordance with written procedures and appropriate corrective actions were assigned. The inspectors had no safety concerns regarding the licensee's reporting, investigation, and correction of internal NCS related events.

c. Conclusions

No safety concerns were noted regarding licensee internally-reported NCS-related events including identification and tracking of corrective actions.

4.0 Nuclear Criticality Safety Inspections, Audits, and Investigations (IP 88015)

a. Inspection Scope

The inspectors reviewed results of the most recent NCS quarterly audit to assure that appropriate issues were identified and resolved. The inspectors reviewed selected aspects of the following documents:

- "Triennial Independent Nuclear Criticality Safety Program Review," dated May 2011
- CGI-327-08, "2008 Nuclear Criticality Safety Program Review," dated March 24, 2008
- COM-28854, "Perform case study of the stand alone NCS analysis methodology," dated June 2010
- COM-36136, "Evaluate the stand-alone NCS analysis methodology," dated June 16, 2011
- COM-36138, "Review of the 2011 Triennial Audit," dated June 16, 2011
- NCS-2011, "NCS Violation and Observation Summary – 1st Quarter 2011," dated April 19, 2011
- QWI 17.1.1, "Environment, Safety, Health and Safeguards Audit Programs," Revision 10, dated June 16, 2009

b. Observations and Findings

The inspectors verified that the licensee's NCS audits were conducted in accordance with written procedures. The inspectors reviewed the previous two triennial NCS assessments that were performed. The inspectors observed that QWI 17.1.1 requires the licensee to complete the following tasks once the assessment is completed:

- Report results of the assessment to the Safety Review Committee.
- Review the results of the assessment and approve planned improvements.
- Enter improvement commitments into the Commitment Tracking System.

- Review completion of Planned Improvements during subsequent Assessments.

The inspectors noted that after the 2008 triennial assessment that the licensee failed to complete the required actions of QWI 17.1.1. The licensee was in the process of completing the requirements of QWI 17.1.1 for the 2011 triennial assessment. The licensee had placed a commitment, COM-36138, in their commitment tracking to ensure that the actions required for the QWI were completed. The inspectors determined the licensee's failure to complete the requirements of QWI 17.1.1 to be a violation of minor significance; therefore the issue is not subject to enforcement action in accordance with Section 2.2.2 of the Enforcement Policy.

The inspectors observed that in the past two triennial assessments that both independent auditors had made observations on the way that the licensee performs their NCS analyses. The 2008 triennial audit states that:

"The change process is well controlled, however, it is potentially detrimental to the NCS evaluation process because it requires only the changed items to get reviewed and confirmed as implemented without a reevaluation of the entire process. This means that an evaluation may be replaced in part by a change evaluation. Ultimately as a result, several evaluations may support a single process. This is potentially more important as the workforce changes. Newer personnel will not have the historical knowledge that is currently held by the retiring workforce.'

In the 2011 triennial audit the auditor states that:

"The NCS documentation is compliant; however the NCS analysis could be improved. The use of multiple NCS analyses for one process is error prone. It is recommended that a project plan be developed to convert the multiple NCS analyses to a single NCS analysis for each process, as appropriate using the new model developed by the NCS staff."

The inspectors have observed the use of multiple NCS analyses during previous inspections. The licensee had previously made a commitment, COM-28854, to perform a case study in one area of the facility to evaluate consolidating multiple NCS analyses into one analysis. At the time of the inspection the licensee had completed the case study but was working on completing the evaluation of the case study to determine if the methodology could be implemented at their facility. The licensee added the commitment to complete the stand alone NCS analysis into their commitment tracking system, (COM-36136).

c. Conclusions

A minor violation was identified in regards to the licensee's failure to complete the requirements of QWI 17.1.1 for the 2008 triennial NCS assessment.

5.0 Criticality Accident Alarm System (IP 88017)

a. Inspection Scope

The inspectors reviewed documentation of criticality accident alarm system (CAAS) coverage, interviewed engineering and maintenance staff, and performed facility walkdowns to determine the adequacy of the licensee CAAS.

b. Observations and Findings

In selected facility areas, the inspectors verified that the licensee's placement of criticality accident alarm detectors has been established in accordance with the criteria described in 10 CFR 70.24. Also, the inspectors reviewed licensee procedures for maintaining and testing the criticality alarm system and observed the monthly check of the monitoring system. No safety concerns were identified with the licensee practices regarding maintenance of the criticality alarm system.

c. Conclusions

No safety concerns were identified regarding the licensee's CAAS coverage of fissile material operations.

6.0 Plant Operations (IP 88015)

a. Inspection Scope

The inspectors performed plant walkdowns to review activities in progress and to determine whether risk-significant fissile material operations were being conducted safely and in accordance with regulatory requirements. The inspectors interviewed operations staff and NCS engineers both before and during walkdowns.

b. Observations and Findings

The inspectors performed walkdowns in risk-significant fissile material processing activities including fuel fabrication and machining; the UR area; the RTRT area; the SFF; AGR Compact Area; and the core assembly area. The inspectors verified that controls identified in NCS analyses were installed or implemented and were adequate to ensure safety. The inspectors also verified that safety was maintained for observed facility operations. The cognizant, NCS engineers were knowledgeable and interacted regularly with operators on the process floors. The inspectors verified the adequacy of management measures for assuring the continued availability and reliability of safety-significant controls relied upon by the licensee for controlling criticality risks.

c. Conclusions

No safety concerns were identified during facility walkdowns.

7.0 Open Item Review

URI 70-27/2011-002-01

The inspectors reviewed the details of an NCS-related issue reported to the NRC in Event Notification (EN) 46589 on February 3, 2011. A portable vise cart holding four metal hardware cabinets with slide-out plastic trays was found in the UR CCA. These trays, which did not have drain holes, when treated as a single unit, exceeded the NCS limiting condition of operation of twenty four liters for container control volume. The licensee determined that overhead leak of special nuclear material-bearing solution filling up the trays was a credible accident scenario. At the time of discovery as the area was shutdown for modification work related to the replacement of Raschig ring filled vessels.

The inspectors reviewed the licensee's immediate actions which included removal of container from the CCA and the performance of an extent of condition sampling review for containers in the area. Liquid special nuclear material (SNM) processing operations were shutdown for the UR and the SFF. The inspectors noted that the licensee conducted a critique of the event on February 4, 2011 and characterized the issue as a level one corrective action requiring a formal investigation to determine causal factors and recommend corrective actions to prevent recurrence. The inspectors noted that as part of their investigation the licensee reviewed more than seventy eight potential unfavorable geometry containers in the CCA for extent of condition. The licensee's investigation team reviewed the containers and found two without drain holes or openings that would allow solution to drain as part of their investigation. The containers were brought to UR management's attention. One container, a toolbox, was removed from the CCA, and the other container was a flammable storage cabinet which was bolted in place in an area without SNM solution transfer lines nearby.

At the time of discovery, the licensee had two IROFS or controls in place to prevent a nuclear criticality accident from occurring. The controls were:

- Unfavorable geometry containers are prohibited in the CCA by procedure and independent verification.
- Recovery system equipment is designed to install to contain less than 2.5 liters of solution.

10 CFR 70.61(a) states, in part, that, each licensee shall evaluate in the ISA, performed in accordance with 10 CFR 70.62, its compliance with the performance requirements in paragraphs (b), (c), and (d) of this section.

10 CFR 70.61(d) states, in part, that, the risk of nuclear criticality accidents must be limited by assuring that under normal and credible abnormal conditions, all nuclear processes are subcritical, including use of an approved margin of subcriticality for safety.

The inspectors determined that the control of prohibiting unfavorable geometry containers into the CCA by procedure and independent verification had failed due to the discovery of the utility box in the UR area. Therefore, the licensee's failure to maintain IROFS credited in the ISA to meet the performance requirements of 10 CFR 70.61 is **Violation (VIO) 70-27/2011-203-01**.

The inspectors reviewed corrective action (CA) 201100409 and noted that the licensee identified two causal factors that were applicable to the event. The first causal factor noted was the ineffective extent of condition reviews associated with prior corrective actions. The report noted that two prior corrective actions (CA20050042 and CA2004001118) for issues relative to control of unfavorable geometry equipment in the CCA that required searches of the UR process areas for containers greater than 2.5 liters without controls. The searches conducted at the time of these corrective actions did not identify the metal hardware cabinets found in EN 46589. The second causal factor identified in the report was that the guidance for maintaining unfavorable geometry equipment in the CCA lacked provisions for periodic reviews to ensure that containers have holes drilled and maintained open to allow solution to pass freely.

The inspectors reviewed the licensee's long term corrective actions in CA 201100409 and determined that when fully implemented the following actions identified should prevent a similar recurrence of issues involving unfavorable geometry equipment within the CCA boundary. The corrective actions include providing improved procedure guidance in Quality Work Instruction (QWI) 14.1.1; "Preventative/Corrective Action System," on the conduct of extent of condition reviews; training on the revisions to QWI 14.1.1; further evaluation of equipment in the CCA with implementation of IROFS where appropriate; and, the implementation of periodic inspections to ensure proper control and maintenance of existing containers within the CCA boundary. The inspectors also noted the licensee identified a CA to review all events reported to the NRC under 10 CFR 70 Appendix A (a) and (b) performance requirements criteria to ensure the adequacy of any applicable extent of condition reviews conducted in response to applicable events reported to the NRC since January 1, 2006. To date, the extent of cause evaluation has not been completed by the licensee. The licensee expects to have the extent of cause evaluation completed by October 15, 2011.

This unfavorable geometry container control issue associated with EN 46589 was being tracked as an Unresolved Item (URI) 70- 27/2011-002-01. This item is closed. The event was also being tracked as Licensee Event Report (LER) 70-27/2011-002-04. The LER was tracking the licensee's discovery of an unfavorable volume container in the uranium recovery container controlled area. This item is closed.

8.0 Exit Meeting

The inspectors presented the inspection scope and results to members of the licensee's management and staff during an exit meeting on June 16, 2011. The licensee acknowledged and understood the findings as presented.

SUPPLEMENTARY INFORMATION

1.0 List of Items Opened, Closed, and Discussed

Items Opened

VIO 70-27/2011-203-01 Tracks the licensee's failure to maintain IROFS credited in the ISA to meet the performance requirements of 10 CFR 70.61.

Items Discussed

None

Items Closed

URI 70-27/2011-002-01 Nuclear Criticality Safety Review of Unfavorable Volume container Control Issue in the Uranium Recovery Area

LER 70-27/2011-002-04 Discovery of an Unfavorable Volume Container in the Uranium Recovery Container Controlled Area

2.0 Inspection Procedures Used

IP 88015	Nuclear Criticality Safety Program
IP 88016	Nuclear Criticality Safety Evaluations and Analyses
IP 88017	Criticality Accident Alarms

3.0 Partial List of Persons Contacted

B&W NOG

D. Faidley	Manager, Nuclear Criticality Safety
L. Wetzel	Senior Engineer, Nuclear Criticality Safety
B. Cole	Manager, Licensing and Safety Analysis
D. Ward	Manager, EHS&S
D. Spangler	Nuclear Safety & Licensing

NRC

T. Marenchin	Criticality Safety Inspector, NRC Headquarters
T. Powell	Criticality Safety Inspector, NRC Headquarters
S. Subosits	Senior Resident Inspector, NRC Region II

4.0 List of Acronyms

B&W	Babcock and Wilcox
CA	Corrective Action
CAAS	criticality accident alarm system
COM	Commitment
IP	inspection procedure
IROFS	items relied on for safety
NCS	nuclear criticality safety
RTRT	Research, Test Reactor and Target
SER	Safety Evaluation Report
SFF	Specialty Fuels Facility
SNM	Special Nuclear Material
UR	uranium recovery