



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVE., SUITE 1200
ATLANTA, GEORGIA 30303-1257

October 20, 2010

Mr. Dominique Grandemange
Site Manager
AREVA NP, Inc.
Lynchburg Manufacturing Facility
P. O. Box 11646
Lynchburg, VA 24506-1646

SUBJECT: NUCLEAR REGULATORY COMMISSION INSPECTION REPORT
NO. 70-1201/2010-003

Dear Mr. Grandemange:

This refers to the inspection conducted at your facility in Lynchburg, Virginia from September 13 through 17 and from September 23 through 24, 2010. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. At the conclusion of the inspection on September 17 and September 24, 2010, the inspectors discussed the findings with you and members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

The results of the inspection are documented on the enclosed inspection report. No violations were identified during the inspection of your licensed activities.

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

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

Sincerely,

/RA by M. Sykes/

Marvin D. Sykes, Chief
Fuel Facility Inspection Branch 3
Division of Fuel Facility Inspection

Docket No. 70-1201
License No. SNM-1168

Enclosure: NRC Inspection Report No. 70-1201/2010-003

cc w/encl: (See page 2)

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ADAMS: ☒ Yes ACCESSION NUMBER: ☒ SUNSI REVIEW COMPLETE

OFFICE	RII: DFFI	RII: DFFI	RII: DFFI				
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DATE	10/19/2010	10/19/2010	10/20/2010	10/ /2010	10/ /2010	10/ /2010	10/ /2010
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cc w/encl:

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Lynchburg, Virginia 24501

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Environmental, Health, Safety & Licensing
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Lynchburg, VA 24506-1646

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Department of Health
James Madison Building
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Richmond, VA 23219

Letter to: Dominique Grandemange from Marvin D. Sykes dated October 20, 2010

Subject: NUCLEAR REGULATORY COMMISSION INSPECTION REPORT
NO. 70-1201/2010-003

Distribution w/encl:

M. Thomas, RII
R. Thompson, NMSS
M. Diaz, NMSS
M. Sykes, RII
PUBLIC

U.S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No.: 70-1201

License No.: SNM-1168

Report No.: 70-1201/2010-003

Licensee: AREVA NP, Inc.

Facility: Lynchburg Facility

Location: 1724 Mount Athos Road
Lynchburg, Virginia

Dates: September 13 through 17, and
September 23 through 24, 2010

Inspector: Mary L. Thomas, Senior Fuel Facility Inspector
Stephen G. Subosits, Senior Resident Inspector

Approved by: Marvin D. Sykes, Chief
Fuel Facility Branch 3
Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

AREVA NP, Inc.
NRC Inspection Report No. 70-1201/2010-003

The AREVA NP Lynchburg facility fabricates fuel assemblies used in commercial nuclear power reactors. During the inspection period, the plant was in normal operation working one shift. This routine, announced inspection included evaluation of the operational safety, fire protection, management organization and controls, and operator training programs. The inspection involved observations of work activities, review of selected records, and interviews with plant personnel.

Operational Safety

The licensee operated the plant safely and in accordance with regulations, the license, the Integrated Safety Analysis (ISA), and licensee policies and procedures. The operators were knowledgeable of their procedural responsibilities. Selected items relied on for safety (IROFS) were appropriate to protect worker and public safety and had successfully passed recent functional tests. No issues of significance were identified. (Paragraph 2.b)

Fire Protection

Fire protection equipment and housekeeping were adequately maintained and surveillance and audit requirements were completed as required by the license application. No issues of significance were identified. (Paragraph 3.b)

Management Organization and Control

The licensee's organizational structure was in accordance with the license and included defined qualifications, responsibilities, and functions to administer the safety programs. The licensee's management/staff understood their responsibilities and authorities under the licensee's governing policies for plant safety programs. The licensee's system of operating procedures ensured the use of only approved and current procedures, and that approved procedures existed for all plant functions affecting safety. The licensee's system of internal reviews, self-assessments, and audits identified and prioritized deficiencies related to regulated activities. The safety review board was effective and functioned in accordance with license requirements. The licensee's had an adequate program for ensuring the quality and integrity of items relied on for safety (IROFS) and other equipment and systems important to safety. No issues of significance were identified. (Paragraph 4.b)

Operator Training

The licensee had adequately implemented 10 CFR 19.12 training requirements and plant personnel demonstrated adequate knowledge of facility operator training requirements. No issues of significance were identified. (Paragraph 5.b)

Attachment

List of Persons Contacted
List of Items Opened, Closed, and Discussed
Inspection Procedures Used
Documents Reviewed

Enclosure

REPORT DETAILS

1. Summary of Plant Status

The AREVA NP Lynchburg facility fabricates low-enriched uranium fuel assemblies used in commercial nuclear power reactors. During the inspection period, normal production activities were ongoing.

2. Operational Safety (IP 88020)

a. Inspection Scope and Observations

The inspectors performed tours of the uranium product center and observed the off-loading of boxes of pellets from Areva NP Richland, the weighing and accounting for the boxes of pellets, pellet sampling, pellet storage, and road loading preparations. During the tours, the inspectors focused their observations on compliance with operating procedures and the integrated safety analysis (ISA). The inspectors observed that personnel demonstrated adequate knowledge of procedural requirements in their area of responsibility. The inspectors reviewed a selection of IROFS and their functional tests for the uranium product center: PL-1, PL-2, PL-4, VS-1, VS-2, VS-4, VS-5, RL-2, RL-3, RL-4, RL-5, BL-1. The inspectors performed walkdowns of the selected IROFS to verify that their implementation in the field was adequate.

The inspectors reviewed the quarterly fan maintenance for the pellet loading room loss of ventilation alarm, work orders 14791 and 14792, to verify that evacuation alarm and lights are periodically tested.

b. Conclusions

The licensee operated the plant safely and in accordance with regulations, the license, the Integrated Safety Analysis (ISA), and licensee policies and procedures. The operators were knowledgeable of their procedural responsibilities. Selected items relied on for safety (IROFS) were appropriate to protect worker and public safety and had successfully passed recent functional tests. No issues of significance were identified.

3. Fire Protection (IP 88055)

a. Inspection Scope and Observations

The inspectors performed a walkthrough of the facility and noted that fire hazards from the presence of transient combustibles were minimized by adequate housekeeping in the plant processing areas. During the walkthroughs the inspectors observed the condition of fire detection equipment and sprinkler systems for obstructions or physical damage, where accessible. The inspectors reviewed a sample of twenty four fire extinguishers and verified all had been serviced within the required frequency and were not obstructed by plant equipment.

The inspector reviewed a sampling of three monthly fire protection system audit records and noted the equipment audits were completed in accordance with the governing Environmental, Health Safety and Licensing (EHS&L) procedure for Fire Protection Equipment Control, SL-1316. The inspectors reviewed an external audit of the facility's sprinkler system and noted that the audit had resulted in eight comments requiring resolution. The licensee entered the issues into the corrective action (CA) system (CA-2010-5326) for tracking to completion.

b. Conclusions

Fire protection equipment and housekeeping were adequately maintained and surveillance and audit requirements were completed as required by the license application. No issues of significance were identified.

4. Management Organization and Control (IP 88005)

a. Inspection Scope and Observations

The inspectors reviewed the organizational charts since the last inspection. The inspectors noted that two changes in personnel responsibilities and functions had occurred. The first change involved the hiring of a new Environmental, Health, Safety, and Licensing manager. The second change involved adding the radiation protection function to the Security, Transportation, and Environmental Management supervisor's responsibilities. The inspectors reviewed the individuals' qualifications and determined that the license position requirements were being met.

The inspectors reviewed the licensee's process for reviewing and approving plant procedures and determined the process was in accordance with license requirements.

The inspectors reviewed the December 4, 2009 safety review board presentation and attendance sheet and confirmed that the membership of the licensee's safety review board (SRB), the meeting frequency, attendance, and items reviewed met the description as stated in Section 11.1.a of the license. The inspectors walked down selected corrective actions from both the December 4, 2009 and the April 28, 2010 SRB meetings and determined the licensee performed adequate review and implemented sufficient corrective actions to address the issues and prevent recurrence.

The inspectors reviewed several monthly management safety walkdown reports for calendar year 2010 and accompanied the safety supervisor on a walkdown of the UPC. The management safety walkdowns were a means for detecting and identifying potential safety hazards throughout the Mount Athos Road facility.

The inspectors reviewed the 2009 biennial assessment of the radiation safety and nuclear criticality safety programs, the 2009 nuclear criticality safety audit, and the 2009 radiation protection audit. The assessments and audits were performed at the frequency stated in Table 11-1 of the license application and were adequate for detecting and identifying potential adverse trends in regulatory performance.

The inspectors reviewed the high water level alarm and low oxygen alarm test for the sump at the bottom of the rod drag test pit, work order 14793, to verify that the alarms perform their intended functions. The inspectors inquired about the calibration gases used to calibrate the low oxygen level alarm, nitrogen at greater than 99% oxygen at 20.9% oxygen. The gases were NIST traceable through the manufacturer.

The inspectors also reviewed the Calibration and Maintenance of the Criticality Alarm System procedure, SL-1520, and determined that the procedure was adequate. The criticality alarm system modules were being calibrated using National Institutes of Standards and Testing (NIST) traceable sources and were maintained as stated in the procedure.

The inspectors also reviewed the calibration certificates for the electroplated alpha and the the electroplated beta standard to ensure that these standards were NIST traceable.

b. Conclusion

The licensee's organization was in accordance with the license and included defined qualifications, responsibilities, and functions to administer the safety programs. The licensee's management/staff understood their responsibilities and authorities under the licensee's governing policies for plant safety programs. The licensee's system of operating procedures ensured the use of only approved and current procedures, and that approved procedures existed for all plant functions affecting safety. The licensee's system of internal reviews, self-assessments, and audits identified and prioritized deficiencies related to regulated activities. The safety review board was effective and functioned in accordance with license requirements. The licensee's had an adequate program for ensuring the quality and integrity of items relied on for safety (IROFS) and other equipment and systems important to safety. No issues of significance were identified.

5. Operator Training (IP 88010)

a. Inspection Scope and Observations

The inspectors reviewed the licensee's general employee training materials for radiological worker training (RWT) to determine if the licensee was meeting the training requirements set forth by 10 CFR 19.12 and the license application requirements. The RWT course presentation packages covered the topics with adequate details on radiological work practices to limit exposures, radiological postings, dose limits and radiological work permits. The inspectors noted that the accompanying 50-question exam was sufficiently challenging to test worker knowledge of the material.

The inspectors interviewed one supervisor and three operators to measure the knowledge level of training requirements. In their responses, the personnel demonstrated adequate knowledge of initial and recurring training requirements for maintaining qualification as an operator and also demonstrated adequate knowledge on the requirements for oversight of individuals in training to become qualified at a work station. Training records for three operators were reviewed and the inspectors determined that their training qualifications were current.

b. Conclusion

The licensee had adequately implemented 10 CFR 19.12 training requirements and plant personnel demonstrated adequate knowledge of facility operator training requirements. No issues of significance were identified.

6. Open Items Reviewed

Closed Inspector Follow-up Item 70-1201/2008-003-02: The licensee's determination of acceptance criteria for fire protection system testing and inclusion of that criteria in Procedure SL-1316. The inspectors reviewed the licensee's CA and condition report (CR) documentation, including the apparent cause analysis for CR 2008-1941 for the issue. As a corrective action for the ACA, the licensee revised SL-1316 and accompanying test forms. The revised test form provided acceptance criteria for flow pressure and volumetric flow in fire hydrant loop testing.

The inspectors determined that licensee had adequately reviewed the item and provided acceptance criteria. This item is closed.

Closed Unresolved Item (URI) 70-1201/2009-001-01: Review of the licensee's revision to the radiological hazards analysis involving a fire in the pellet loading room vault to be consistent with the methodology described in the Integrated Safety Analysis Summary. The inspectors reviewed the licensee's ISA and radiological hazard analysis involving a fire in the pellet vault and confirmed that the bounding scenario in the ISA was now consistent with the same in the radiological hazard analysis. The actual accident scenario analyzed in the radiological hazard analysis was a fire in the pellet loading room vault involving 1,320kg of UO₂ pellets with ventilation system running. The ISA Summary adequately reflected the actual accident scenario that was analyzed. This item is closed.

ATTACHMENT

1. LIST OF PERSONS CONTACTED

Licensee

*D. Grandemange, Site Manager
*M. Moore, Manager, Uranium Product Center
*R. Sharkey, Manager, Environmental, Health, Safety & Licensing
*T. Blanks, Supervisor, Radiation Protection, Security, Transportation and Environmental Management
D. Barger, Maintenance Manager

*** Denotes those present at the exit meeting.**

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

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

IFI 70-1201/2008-003-02	Closed	The licensee's determination of acceptance criteria for fire protection system testing and inclusion of that criteria in Procedure SL-1316.
URI 70-1201/2009-01-01	Closed	Review of the licensee's revision to the radiological hazards analysis involving a fire in the pellet loading room vault to be consistent with the methodology described in the Integrated Safety Analysis Summary.

3. INSPECTION PROCEDURES USED

88005 Management Organization and Control
88010 Operator Training/Retraining
88020 Operational Safety
88055 Fire Protection (Annual)

4. DOCU-MENTS REVIEWED

"Fire Sprinkler Inspection on 6-25-10", Roanoke Sprinkler, Inc., June 25, 2010
"ANI Nuclear Liability Insurance Inspection Report L110909.111", November 24, 2009
Form 22455, "IROFS Inspections for Buildings/General"
Form 22551, "Fire Hydrant Maintenance"
Form 22550, "Fire Protection System Audit"
Form 22591, "Ventilation System Inspection Record"
Form 22952, "IROFS Inspections for Rod Line"
Form 22605, "IROFS Inspections for Pellet Loading Room (PLR)"
FA Administrative Procedure 1723-01, "Fuels Training", Rev. 4
FA Quality Procedure 1706-01, "Control of US Fuel Business Unit and MAR Procedures and MAR SWIs," Rev. 27

Enclosure

Mount Athos Road Radiation Worker Training Course Presentation Materials and Exam
Mount Athos Road Nuclear Criticality Safety Training Course Presentation Materials and Exam
MA-307, "Packaging and Storing UO2 Material," Rev. 19
SL-1100, "Items Relied On For Safety," Rev. 10
SL-1101, "Management Measures Program," Rev. 6
SL-1233, "Calibration, Testing and Maintenance of Air Cleaning Systems," Rev. 14
SL-1316, "MAR Fire Protection Equipment Control", Rev. 15
SWI-2000, "Fuel Pellet Receipt – Truck Unload," Rev. 11
SWI-2001, "Removal of Pellet Box Plastic," Rev. 6
SWI-2002, "Pellet Box Weighing," Rev. 8
SWI-2004, Pellet Receipt Sampling,: Rev. 10
SWI-2006, "Pellet Box Storage," Rev 4
Corrective Action/Condition Report and Apparent Cause Analysis # 2008-1941
WebCAP Corrective Actions: 2009-2879, 2009-4203, 2009-4784, 2009-7918, 2009-8224, 2010-467, 2010-3609, 2010-5225, 2010-5326