NRC FORM 591FF PART 1
(12-2007)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

INSPECTION REPORT

1. LICENSEE OR CERTIFICATE HOLDER/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE:
AREVA NP, Inc. 2101 Horn Rapids Road Richland, WA 99352-0130 REPORT NO: 2010-004	**U.S. Nuclear Regulatory Commission** **Region II** **245 Peachtree Center Avenue NE, Suite 1200** **Atlanta, GA 30303-1257**

3. DOCKET NUMBER:	4. LICENSE OR CERTIFICATE NUMBER:	5. DATE(S) OF INSPECTION:
70-1257	SNM-1227	May 10, 2010 – May 13, 2010

LICENSEE OR CERTIFICATE HOLDER:

The inspection was an examination of the activities conducted under your license or certificate as they relate to safety and/or safeguards and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license or certificate. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

☑ 1. Based on the inspection findings, no violations were identified.

☐ 2. Previous violation(s) closed.

☐ 3. Reported events reviewed

☐ 4. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, to exercise discretion, were satisfied.
Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

☐ 5. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
(Violations and Corrective Actions)

LICENSEE OR CERTIFICATE HOLDER STATEMENT OF CORRECTIVE ACTIONS FOR ITEM 5, ABOVE

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violation(s) identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to the NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE/CERTIFICATE HOLDER REPRESENTATIVE			
NRC INSPECTOR	Richard Gibson / Chad Cramer	*/RA/*	*6/7/10*

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6. INSPECTOR(S): Richard Gibson and Chad Cramer

7. INSPECTION PROCEDURES USED: 88030, 88050

EXECUTIVE SUMMARY

Summary of Plant Status

The AREVA NP Richland facility converts uranium hexafluoride into uranium dioxide for the fabrication of low-enriched fuel assemblies used in commercial nuclear power reactors. During the week of the inspection, normal production activities were ongoing. This routine, announced inspection included observations and evaluations in the areas of emergency preparedness and radiation protection. The inspection involved observations of work activities, reviews of selected records, and interviews with plant personnel. The inspection identified the following aspects of the licensee programs as outlined below:

Radiation Protection (IP 88030)

- The inspectors interviewed licensee representatives, reviewed radiation protection procedures, and reviewed personnel exposure data to verify that exposures were maintained as low as reasonably achievable (ALARA) and within the limits of 10 CFR 20.1201. Records indicated that the external and internal exposures were less than the occupational limits in 10 CFR 20.1201. The inspectors noted that personnel exposure (total effective dose equivalent) had increased for calendar year 2009 compared to calendar year 2008. The collective total effective dose equivalent for calendar year 2009 was 90 Rem, and 67 Rem for calendar year 2008. Based on interviews with the licensee staff, review of air sample records and review of internal exposure records, the inspectors found that the increase in exposures was attributable to the use of special nuclear material with traces of thorium in the dry conversion area, the blended low enriched uranium (BLEU) area, and the new chemical laboratory. Also, the licensee indicated that there were rotary air lock leaks in the dry conversion area. The licensee repaired the rotary air lock to secure the leaks, initiated an investigation to determine the cause(s) of the increase in exposures, and planned to implement additional administrative and engineering controls to reduce the collective total effective dose equivalent.

- The inspectors interviewed ceramic production area technicians regarding their work in transferring pellet boats containing green pellets from the BLEU Rotary Press conveyor to the BLEU scrap hood. The area technicians were not able to provide the standard operating procedure (SOP) for that process when asked by the inspectors, because the procedure was located in the supervisor's office. The inspectors reviewed the SOP for the BLEU and uranium dioxide (UO2) Rotary Press and the SOP for scrapping of BLEU and UO2 material. The inspectors observed that the licensee had experienced several incidents of contaminated workers from these processes and noted that neither operational procedures nor the radiation work procedure included specific radiation protection controls for this area. The licensee planned to implement additional radiological controls in the radiation work procedures to govern activities involving the handling of BLEU material.

- The inspectors observed workers throughout the radiologically contaminated areas of the UO2 building, the specialty fuel building, and the engineering laboratory operations building, wearing the appropriate dosimeters and personal protective equipment (PPE). Based on interviews, procedural reviews, and observation of plant personnel within the controlled area, the inspectors determined that the licensee's monitoring program for internal and external exposure was consistent with regulatory requirements. The program was adequate for the type of operations and work activities performed.

- The inspectors reviewed records of the Radiation Protection program self-assessments and ALARA programs. The inspectors concluded that the records, audits, and procedures reviewed adequately supported implementation of the self-assessment and ALARA programs. The inspectors reviewed operating procedures for the health safety technicians (HST) and noted that changes to the procedures were up to date and the changes were included in the employee training. No findings of significance were identified.

- Instruments observed by the inspectors were operable and their calibrations were current. Calibration and functional performance check procedures were found to be current and adequate. The records indicated that the associated equipment had been properly maintained in accordance with licensee procedures and was capable of performing the intended safety function in a reliable manner. No findings of significance were identified.

- Respiratory protection equipment issuance and training was examined and determined to be adequate to ensure respiratory protection equipment was only obtained by certified users. The inspectors reviewed radioactive job procedures (RJPs), observed radiological surveys, and noted radiological precautions, and general work practices during plant walk downs. The inspectors reviewed medical evaluations, fit-testing, training, cleaning and respirator storage records. The inspectors determined that the licensee maintained appropriate records and controls to demonstrate adequate implementation of the program.

  The licensee staff discussed the respirator issuance process and demonstrated how a fit test would be performed on individuals before assigning respirators. During a tour of the facility, the inspectors observed several individuals at various areas using respirators as required by the RJP or the SOP for the areas. The inspectors examined several storage locations and determined that respirators were adequately stored and maintained.

- The inspectors reviewed survey documentation and observed technicians performing surveys in accordance with the procedures. During tours of the plant, the inspectors observed HSTs conducting job coverage of posted RJPs and collecting fixed air samples for analysis. The inspectors reviewed survey documentation and observed technicians performing surveys in accordance with the procedures. From the review of survey records, the inspectors noted that for calendar year 2009, there were several areas in the UO2 building where the action level for removable contamination on floors and equipment (5,000 dpm/100 square centimeters) was exceeded. The areas were decontaminated, re-surveyed by the HSTs and found to be less than the action level. Also in calendar year 2010, the inspectors noted that there were several personnel contaminations identified by the licensee, including contamination of two ceramic area technicians. These two workers were found to be contaminated after they had exited the radiologically contaminated areas, and the inspectors noted from review of the personnel contamination reports that on several occasions contaminated workers were outside of the radiologically contaminated areas, including the two ceramic areas technicians. Contamination levels above the licensee's posted action level of 200 dpm/100 square centimeters were found on worker's skin and clothing, and on the floor of the intermediate areas. The licensee planned to perform additional training to workers, and implement administrative and engineering controls to reduce the amount of personnel contamination.

Emergency Preparedness (IP 88050)

- The inspectors reviewed changes that the licensee made to the emergency preparedness program since the last inspection. No major changes were made to the program in that time period. However, the licensee was in the process of updating the Emergency Plan.

- The inspectors reviewed the implementing procedures for the Emergency Plan. While reviewing the procedures, the inspectors discovered that Attachment F, "Classification and Notification Matrix," to Implementing Procedure E08-03-3.1 was not directly aligned with Implementing Procedure E-08-03-1.1, "Classifying an Emergency." The "Classification and Notification Matrix," is used by Interim Plant Emergency Directors (IPEDs) as a quick reference to determine the classification of events that occur at the plant. The Classification and Notification Matrix differed from the Classifying an Emergency procedure, in that, the circumstances that describe when to make an emergency declaration for a fire and a nuclear criticality are not implemented as defined in the Classifying an Emergency procedure. The licensee is aware of this issue and plans on correcting this issue during the ongoing Emergency Plan update. This issue will be reviewed on a subsequent inspection and will be tracked by the NRC as an Inspector Follow-up Item (IFI) (70-1257/2010-004-01).

- The inspectors reviewed the training program for the Plant Emergency Directors (PEDs), Incident Commanders (ICs), IPEDs, and Plant Emergency Response Team (PERT) members. An IFI was opened in 2008 (IFI 70-1257/2008-001-02) regarding providing IPEDs with more hands-on training. The licensee had provided some additional training to IPEDs, but also had implemented a new program of quarterly tabletop exercises or emergency exercises. Therefore, IFI 70-1257/2008-001-02 will remain open to verify that more exercises are being provided to the IPEDs.

- The inspectors discussed the Emergency Plan with the Richland Fire Department (RFD). The licensee invites the RFD to participate in drills and has them onsite regularly to discuss new hazards associated with the plant. No significant issues were identified.

- The inspectors reviewed the licensee's past drills and exercises including findings from the drills and exercises. The licensee is meeting the requirements of the Emergency Plan and tracking all findings until they have been properly closed. The inspectors also provided six PEDs and IPEDs with a table-top exercise. No significant issues were identified.

- The inspectors walked down emergency equipment throughout the plant to ensure that it was available and meeting regulations/codes. No significant issues were identified.

- The inspectors reviewed the licensee's internal audits of the emergency preparedness program over the past two years. The licensee was performing their internal audits in accordance with their license application and was adequately addressing issues discovered during the internal audits. No significant issues were identified.

Exit Meeting Summary

- The inspection scope and results were summarized on Thursday, May 13, 2010, with Bob Link, and members of his staff. The inspectors asked the licensee staff whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

Key Points of Contact

Name	Title
C. Perkins	Plant Manager
R. Link	Environmental, Health, Safety, and Licensing Manager
R. Burklin	Health Physics Manager
T. Tate	Security and Safety Manager
D. Durham	Radiological Safety Supervisor
W. Doane	Criticality Safety
V. Gallacher	Uranium Conversion and Recovery Manager
L. Maas	Licensing and Compliance Manager
J. Diest	Emergency Preparedness Manager

List of Items Opened, Closed, Discussed

Item Number	Status	Description
IFI 70-1257/2008-001-02	Discussed	Provide more hands-on training for Interim Plant Emergency Directors
IFI 70-1257/2010-004-01	Opened	Classification and Notification Matrix does not align with Classifying an Emergency procedure