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: 2009-007	U.S. Nuclear Regulatory Commission Region II 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303-8931

3. DOCKET NUMBER:	4. LICENSE OR CERTIFICATE NUMBER:	5. DATE(S) OF INSPECTION:
70-1257	SNM-1227	October 19, 2009 – October 22, 2009

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	P. Startz	/RA/	11//18/09

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6. INSPECTOR(S): P. Startz

7. INSPECTION PROCEDURES USED: 88070 Permanent Plant Modifications

EXECUTIVE SUMMARY

Summary of Plant Status

The Areva NP facility converts uranium hexafluoride into uranium dioxide and fabricates fuel assemblies for use in commercial nuclear power reactors. During the inspection period, normal production activities were ongoing. This routine, announced inspection included permanent plant modifications. The inspection involved observation of work activities, a review of selected records, interviews with plant personnel, and detailed observations of process equipment.

Permanent Plant Modifications (IP 88070)

- The inspector reviewed Engineering Change Notice (ECN) 8294C, Cylinder Wash ISA Safety Modifications. The ECN 8294C project included modifications to processing equipment and implementation of additional automated process controls used for the cleanout of uranium hexafluoride cylinders. The project was initiated to implement additional Items Relied Upon for Safety (IROFS). The new IROFS were created to address new requirements generated from revisions to the nuclear criticality safety study E04-NCSS-065 and the Independent Safety Analysis. The project was scheduled to be completed simultaneously with implementation of the revised nuclear criticality safety study.

  The ECN 8294C project implemented process equipment modifications, new independent automation system, a new software program capable of communicating with the main material control database, and revisions to administrative procedures. The project package included design details described in the Controls Design Description, instructions to complete equipment modifications, and revised piping and instrumentation diagrams (P&ID's). The ECN included a separate software work order that documented revisions to the automation control logic and revised automation testing requirements. The ECN package included evidence of appropriate project reviews and approvals, revised operating procedures, revised equipment calibration and surveillance procedures, and evidence of successful preliminary functional testing. The inspector compared the as-installed equipment configuration to the as-built P&ID drawing CSA-611065. With the exception of some minor non-safety issues, the P&ID's were accurate and IROFS equipment and automated IROFS interlock information was flagged on the drawings and matched descriptions provided in the Controls Design Description. The inspector identified the completed software verification and validation documentation. The inspector identified no significant deficiencies in the implementation of ECN 8294C.

- The inspector reviewed ECN 8120C, Ion Exchange Column Uranium Monitor, Revision of Tolerance Limits. The ECN involved reprogramming the functionality of sodium iodide monitors that are identified as Safety Related Equipment (SRE). Two monitors are mounted to a single prefilter tank and are designed to measure the accumulation of uranium within the tank. The monitors are installed in pairs to provide double contingency and function through independent controllers. If the maximum uranium setpoint limit is exceeded, either of the monitors are programmed to close an automated valve to stop the flow of influent into the tank.

  A history of out-of-tolerance conditions identified through the licensee's normal quality assurance program resulted in an effort to improve performance consistency. The licensee concluded that increasing the allowed tolerance from 10% to 20% along with a corresponding reduction in the trip setpoint to accommodate the tolerance increase would provide the desired performance consistency. The ECN 8120C package and associated Software Work Order number PE-654 were initiated and evaluated in accordance with licensee's Management Control Procedure (MCP-30379). The ECN package included evidence of appropriate project reviews and approvals, revised equipment calibration, revised surveillance procedures, and evidence of successful preliminary functional testing. The inspector identified the completed software verification and validation documentation and performed field verifications of the actual monitoring systems. The inspector identified no significant deficiencies in the implementation of ECN 8120C.

- The inspector reviewed ECN 8221C, Best Practice Rod-To-Bundle Equipment Installation. The project involved the installation and startup of new equipment used for the final assembly of fuel rods and fuel rod bundles. The review focused on the licensee's adherence to their design and approval processes involving nuclear criticality safety (NCS). The inspector determined that a nuclear criticality safety evaluation had been performed for the new rod storage arrays and assembly equipment, and that the licensee's NCS staff had reviewed and approved the final equipment installation. The inspector determined that accurate as-built drawings had been completed and approved. Functional testing of the new equipment had been successfully completed using a variety of test rods. The inspector compared the as-installed equipment configuration to the as-built drawings and confirmed the correct layout of the assembly line. The inspector identified no significant deficiencies in the implementation of ECN 8221C.

Exit Meeting Summary

The inspection scope and results were summarized on Thursday October 22, 2009, with Charles Perkins, and members of his staff. The inspector 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	Site Manager
T. Tate	SS&EP Manager
J. Luebke	Project Engineer
J. Versey	Technical Support & Maintenance
C. Manning	Nuclear Criticality Safety Manager
R. Kimura	Engineering Manager