U.S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No.:	70-1257
License No.:	SNM-1227
Report No.:	70-1257/2010-006
Licensee:	AREVA NP, Inc.
Facility:	Richland Facility
Location:	2101 Horn Rapids Road Richland, Washington
Dates:	July 26-29, 2010
Inspector:	Robert Prince, Fuel Facility 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. 70-1257/2010-006

Inspections were conducted by the regional inspector during normal and off normal shifts in the areas of radioactive waste management, transportation, and radiological controls with respect to posting and control of airborne contamination areas. During the inspection period, normal production activities were ongoing. This routine, announced inspection included observations and evaluations of radioactive waste management, transportation programs, and radiological controls. The inspection involved field observations of work activities, review of selected records, and interviews with plant personnel.

Radioactive Waste Management

- Radioactive waste storage containers were properly labeled and maintained, and radioactive waste storage areas were properly posted and maintained in accordance with approved procedures. (Paragraph 2)

- Activities associated with the handling, packaging, and storage of radioactive waste were adequate to ensure the health and safety of workers and members of the public. (Paragraph 2)

- Calibration and operation of the waste assay unit was maintained in accordance with approved procedures. (Paragraph 2)

Transportation

- Plant procedures adequately specified the responsibilities of personnel and organizations responsible for the transportation of radioactive materials. (Paragraph 3)

- Activities associated with the receipt and preparation of radioactive material shipments were performed in a safe manner maintaining strict procedural adherence. (Paragraph 3)

- Radioactive material shipment manifests were complete and accurately reflected the contents of shipments. (Paragraph 3)

Plant Operations – Posting and Control of Airborne Contamination Areas

- Posting and access control to airborne contamination areas were inspected and determined to be in accordance with regulatory requirements. (Paragraph 4)

Attachment

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

REPORT DETAILS

1. Summary of Plant Status

The AREVA Richland facility converts uranium hexafluoride (UF6) into uranium dioxide for the fabrication of low-enriched fuel assemblies used in commercial nuclear power reactors. During the inspection period, normal production activities were ongoing.

2. Radioactive Waste Management (IP 88035)

a. Inspection Scope and Observations

The inspection consisted of a review of the licensee's radioactive waste management procedures, field observations, and discussions with responsible personnel.

The inspector toured radioactive waste storage and handling areas. The areas were properly posted and storage containers were labeled in accordance with approved procedures and regulatory requirements. The inspector noted that the physical condition of storage containers was acceptable. In addition, acceptable housekeeping standards were maintained in the radioactive waste storage areas. Through discussions with waste management personnel, the inspector determined that personnel were knowledgeable of the requirements associated with the storage and control of radioactive waste material and routine inspection requirements for storage locations. The inspector observed licensee personnel as they performed routine inspections of radioactive waste storage areas, which were performed in accordance with approved procedures. These personnel were also knowledgeable of program requirements associated with the inspection and maintenance of radioactive waste storage containers and storage areas.

The inspector reviewed records associated with the generation and tracking of radioactive waste materials. Responsible personnel accessed the computerized radioactive waste management inventory system and displayed selected records for the inspector. The inspector found that the inventory database was current and correctly reflected the storage locations of radioactive waste material. The inspector determined that the inventory and tracking records for radioactive waste and radioactive material were current and that cognizant personnel were knowledgeable of program requirements for tracking radioactive waste material. The inspector determined that the documentation accurately reflected the location, amounts, and description of radioactive materials.

Through a review of procedures, the inspector determined that the responsibilities and roles of waste management personnel and organizations with radioactive waste management program responsibilities were adequately described. The inspector noted that no significant personnel changes were made associated with personnel responsible for radioactive waste program activities since the last inspection.

The inspector observed the operation of the waste assay unit in the field. The inspector noted that the licensee had recently upgraded the waste assay electronics, operating system, and detectors. This upgrade automated various steps associated with the manipulation and analysis of assay data. On previous inspections, the inspector noted that analysis data had to be manually transferred between various computerized

databases. The upgrade eliminated the need for manual transfer of data which minimized the potential for human error during this process. The inspector reviewed the work order and initial calibration of the new assay detectors, which was completed in accordance with approved procedures. System operators were knowledgeable of system operating parameters and acceptance criteria associated with daily operational performance checks. System operators demonstrated adequate knowledge relating to the operation of the waste assay unit and the required actions in the event that a routine performance check failed.

b. Conclusions

Radioactive waste storage containers were properly labeled and maintained, and radioactive waste storage areas were properly posted and maintained in accordance with approved procedures. Activities associated with the handling, packaging, and storage of radioactive waste were adequate to ensure the health and safety of workers and members of the public. Calibration and operation of the waste assay unit was maintained in accordance with approved procedures.

No issues of safety significance were identified.

3. Transportation (IP 86740)

a. Inspection Scope and Observations

The inspection consisted of field observations, discussions with responsible personnel, and a review of selected documents.

Through a review of procedures, the inspector determined that the responsibilities and roles of Transportation and Packaging personnel and organizations responsible for the transportation of radioactive and hazardous materials were adequately described.

The inspector observed activities associated with the receipt of a UF_6 cylinder shipment and the handling of overpacks. The inspector determined that personnel responsible for these activities were knowledgeable of the licensee's procedural requirements and Department of Transportation (DOT) regulations relating to the preparation, packaging, and labeling of radioactive material shipments. The inspector observed that receipt inspections were thorough and were conducted in accordance with approved procedures, meeting regulatory requirements.

The inspector observed preparations associated with a fuel pellet shipment. The inspector noted that licensee personnel verified lot identification numbers for pellet boxes prior to loading. Adequate controls were established to ensure that material was loaded in designated containers and that container contents were accurately reflected on shipping documentation. Loading activities and shipment preparation activities were performed safely and in accordance with approved procedures.

The inspector reviewed selected radioactive waste and fuel shipment manifests for completeness and accuracy. The reviewed manifests correctly reflected the classification, quantity, and labeling requirements for the respective shipment. Through discussions with personnel responsible for certifying that shipments were prepared in

accordance with DOT regulatory requirements, the inspector determined that these personnel were knowledgeable of their duties and associated regulatory requirements.

The inspector reviewed licensee self assessments and audits of the transportation and radioactive waste handling programs. A review of the licensee's corrective action database did not indicate any adverse trends relating to these program areas.

b. Conclusions

Plant procedures adequately specified the responsibilities of personnel and organizations responsible for the transportation of radioactive materials. Activities associated with the receipt and preparation of radioactive material shipments were performed in a safe manner maintaining strict procedural adherence. Radioactive material shipment manifests were complete and accurately reflected the contents of shipments.

No issues of safety significance were identified.

4. Plant Operations – Posting and Control of Airborne Contamination Areas

a. Inspection Scope and Observations

The inspection included discussions with plant personnel, plant observations, and a review of documents.

The inspector reviewed licensee procedures and noted that plant areas were posted and specifically stated "Caution-Airborne Radioactivity-Respiratory Protection Required" when the use of respirators was required due to established action levels being exceeded. The inspector noted during plant tours that these areas were properly posted and access controlled was in accordance with approved procedures.

The licensee identified a limited number of tasks that may pose the potential to encounter higher than normal airborne contamination levels for short duration time periods. Workers performing these tasks would don respirators at specific steps and remove respirators upon completion of the specific steps. These controls were implemented through the one or a combination of radiological work permit requirements, training of workers, and procedural controls.

b. Conclusion

Posting and access control to airborne contamination areas were inspected and determined to be in accordance with regulatory requirements.

No issues of safety significance were identified.

ATTACHMENT

1. LIST OF PERSONS CONTACTED

Licensee

J. Davis, Packaging & Transportation
* R. Follett, Product Center Manager, Rod and Bundle
H. Ford, Nuclear Material Shipping/Receiving
* V. Gallacher, UCAR Operations
R. Gentz, Packaging & Transportation
* W. Koglin, UCAR Technical Support
M. Koontz, Packaging & Transportation
J. Luebke, Maintenance
* L. Maas, Licensing & Compliance
* C. Perkins, Plant Manager
B. Schmidt, Nuclear Material Shipping/Receiving
* T. Tate, Safety, Security & Emergency Preparedness
S. Till, Nuclear Material Shipping/Receiving
K. Westerfield, Packaging & Transportation

*** 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

None

3. INSPECTION PROCEDURES USED

IP 86740	Inspection of Transportation Activities
IP 88035	Radioactive Waste Management

4. DOCUMENTS REVIEWED

Number	Title
SOP-40383, Version 6	Waste Assay Operation
SOP-40382, Version 20	Solid Waste Packaging Procedure
EO7-02-311, Version 4.0	UO2 Waste Assay Calibration and Operating Procedure
AID-10360, Version 3.0, Ref. 1028	Ortec ISOCART In-Situ Object Counting Assay System
MCP-30531, Version 1.0	Radioactive Waste Assay Error Determination

SOP-40386, Version 7.0	Mixed/Hazardous/Dangerous Waste Handling
SOP-40387, Version 4.1	LLRW and Ash Container Handling & Storage
SOP-40384, Version 4.2	Waste Volume Reduction and Packaging Facility
SOP-40670, Version 3.0	Shipment Release for Licensed Radioactive Material Packages
SOP-40315, Version 13	Recertification Testing and Inspection of UF6 Cylinders
SOP-40669, Version 2.0	Inspection of Radioactive Material Packages and Their Components
SOP-40071, Version 11	Radioactive Package Marking and Labeling
SOP-40065, Version 9.0	Nuclear Materials Shipping & Receiving - General Rules
FRM-20174, Version 9.0	30B UF6 Cylinder Recertification Record Follower Card
FRM-20175, Version 4.0	GNF-J 30B UF6 Cylinder Recertification Record Follower Card
SWI-40315A, Version 2.0	Cylinder Recertification on Cylinders for Inspection, Filling, Draining and Drying
SWI-40315C, Version 4.0	Installing Valves and Plugs and Leak Testing
SOP-40075, Version 9.0	Loading, Shipping and Receiving UO2 Pellets in ANF-250 Containers
SOP-40076, Version 6.0	Packing, Shipping and Receiving of Uranium Oxide Powder in ANF-250 Containers
MCP-30112, Version 17.0	Current Shipping Container Information
MCP-30113, Version 8.0	Logistics Shipping Guidelines
MCP-30114, Version 4.0	Logistics Waste Shipping Guidelines
Work Orders: 13033290, 13032577, 13032020, 13031310, and 13032841	Calibration of UF6 Cylinder Analyzer
AID-10052, Version 2.1, Ref. 054	UF6 Cylinder Assay System - The Nucleus, Inc., PCAII Multichannel Assay Analyzer
Work Order 13031252	Calibration of Ortec ISOCART In-Situ Object Counting Assay System
SOP-40174, Version 11	General Facility Radiation Work procedure