UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 Peachtree Center Ave, NE Suite 1200
Atlanta, GA 30303-1257

September 27, 2010

Mr. Cary Alstadt
Manager, Columbia Plant
Westinghouse Electric Company
Commercial Nuclear Fuel Division
5801 Bluff Road, Drawer R
Columbia, SC 29250

SUBJECT: NUCLEAR REGULATORY COMMISSION INSPECTION REPORT NO. 70-1151/2010-006 AND NOTICE OF VIOLATION

Dear Mr. Alstadt:

This refers to the inspection conducted on August 23-27, 2010, at the Columbia, SC facility. 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. On August 27, 2010, the inspectors discussed the findings with 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 selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy which is included on the NRC's web site at http://www.nrc.gov/about-nrc/regulatory/enforcement.html. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the NRC Form 591FF, SAFETY INSPECTION REPORT, Parts 1 and 3. The violation is being cited in the Notice because the violation was identified by the NRC.

You are required to respond to the violation in this letter and should follow the instructions specified in the enclosed Notice when preparing your response. For your consideration and convenience, NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," is available on the NRC's web site at http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1996/in96028.html. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, 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. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

If you have any questions, please call me at (404) 997-4629.

Sincerely,

/RA/

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

Docket No. 70-1151
License No. SNM-1107

Enclosures: 1. Notice of Violation
2. NRC Form 591FF Parts 1 and 3

cc w/encls:
Marc Rosser
Manager
Environment, Health and Safety
Commercial Nuclear Fuel Division
Electronic Mail Distribution

Susan E. Jenkins
Assistant Director, Division of Waste Management
Bureau of Land and Waste Management
Department of Health and Environmental Control
Electronic Mail Distribution

Distribution w/encls: (See page 3)

Distribution w/encls:
M. Sykes, RII
R. Gibson, RII
P. Habighorst, NMSS
M. Adams, NMSS
PUBLIC

☑ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE ☑ NON-SENSITIVE

ADAMS: ☑ Yes ACCESSION NUMBER:_____ ☑SUNSI COMPLETE

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI
SIGNATURE	RG 9/24/10	PS 9/23/10	MS 9/27/10			
NAME	R Gibson	P Startz	M Sykes			
DATE	9/ /2010	9/ /2010	9/ /2010			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\FFBII\REPORTS\DRAFT INSPECTION REPORT FOLDER\WESTINGHOUSE\2010-006.DOC

NOTICE OF VIOLATION

Westinghouse Electric Company, L.L.C. Docket No. 70-1151
Columbia, South Carolina License No. SNM-1107

During an NRC inspection conducted August 23-27, 2010, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> Safety Condition S-1 of Special Nuclear Materials (SNM) License No. SNM-1107 authorizes the use of licensed materials in accordance with the statements, representations, and conditions in the License Application and Supplements.
>
> Paragraph 3.4.1 of the License Application, titled Procedure Structure, states, in part, that operations to assure safe, compliant activities involving nuclear material are conducted in accordance with approved procedures.
>
> Licensee procedure RA-203, titled General HP Rules and Recommendations, paragraph 6.7.2.F states, in part, that personnel issued dosimeters or ring badges shall wear these devices when in the Chemical Area, Radiation Areas, and/or when working with or near radioactive material. Licensee memorandum LTR-EHS-10-23 issued 2/18/2010, Subject: Prospective Analysis: Monitoring Requirements for 2010, table titled: Matrix of Radiation Monitoring Requirements, specified that mechanical contractors are required to wear a whole body badge and that personnel working in the Final Assembly area were required to wear a whole body badge.
>
> Contrary to the above, on August 24, 2010 during a training activity for contractors, the inspector overheard as a mechanical contractor state he had never worn his dosimeter in the Final Assembly area. During further discussions with the mechanical contractor, the inspector confirmed that he had worn his dosimeter in the contamination controlled area, but had never worn his dosimeter while working in the Final Assembly area. The failure of the contractor to wear his dosimeter in the Final Assembly area in accordance with licensee procedure RA-203 and memorandum LTR-EHS-10-23, was considered a violation of NRC requirements (VIO 70-1151/2010-006-01).

This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Westinghouse Electric Company, L.L.C., is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the 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 or severity level, (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 a

Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should be taken. Where good cause is shown, consideration will be given to extending the response time. If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response 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 to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made publically available 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 basis 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 2.390(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 27th day of September, 2010

RC 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:
Westinghouse Electric Corporation Commercial Nuclear Fuel Division Columbia, SC 29250 REPORT NO: 2010-006	U.S. Nuclear Regulatory Commission Region II 245 Peachtree Center Ave, NE Suite 1200 Atlanta, GA 30303-1257

3. DOCKET NUMBER:	4. LICENSE OR CERTIFICATE NUMBER:	5. DATE(S) OF INSPECTION:
70-1151	SNM-1107	August 23-27, 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)

See Attached NOV

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/	09/ 24 /2010

Enclosure 2

INSPECTION REPORT

1. LICENSEE OR CERTIFICATE HOLDER/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE:
Westinghouse Electric Corporation Commercial Nuclear Fuel Division Columbia, SC 29250 REPORT NO: 2010-006	U.S. Nuclear Regulatory Commission Region II 245 Peachtree Center Ave, NE Suite 1200 Atlanta, GA 30303-1257

3. DOCKET NUMBER:	4. LICENSE OR CERTIFICATE HOLDER NUMBER:	5. DATE(S) OF INSPECTION:
70-1151	SNM-1107	August 23-27, 2010

6. INSPECTOR(S): P. Startz

7. INSPECTION PROCEDURES USED: 88005, 88010

EXECUTIVE SUMMARY

Summary of Plant Status

The Westinghouse 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 management organization controls and operator training. The inspection involved observation of work activities, a review of selected records, and interviews with plant personnel. The inspection identified the following aspects of the licensee program as outlined below.

Management Organization and Controls (88005)

- The inspector reviewed changes in management organization and safety related policies since the previous management controls inspection. The inspector noted that the plant manager had been assigned additional management responsibilities at other plant sites. The plant manager stated at the entrance meeting that he was able to maintain adequate oversight of activities at the Columbia facility while fulfilling his new responsibilities at other facilities. The inspector noted that the remaining upper management structure, management positions in safety organizations, and the facility safety policies and commitment to safety remained stable. No findings of significance were identified.

- The inspector attended a regularly scheduled station meeting on August 25, 2010. The standardized meeting agenda included review and discussions of production status, new safety related issues, review of new entries into the corrective action program (CAP), assignment of CAP follow-up responsibilities, and review/approval/closure of CAP corrective actions. No findings of significance were identified.

- The inspector reviewed examples of the license's corrective action program to determine if the program was being conducted in accordance with the licensee's procedures and license conditions. The inspector also reviewed reports regarding failures of safety significant controls and management measures on another internal reporting system referred to as Redbook. No findings of significance were identified.

- The inspector reviewed samples of operating procedures and production equipment undergoing modifications to ensure the changes were conducted in accordance with the license's configuration management procedures. Revisions to operating procedures and facility equipment changes were initiated, revised, reviewed, approved for release, and controlled by a computerized document management system. Operating procedure revisions and operator retraining were required to be completed prior to restarting modified process equipment. No findings of significance were identified.

- The inspector reviewed samples of internal audits and quarterly safety status review meetings conducted during the past year. No findings of significance were identified.

- The inspector evaluated the status of unresolved issue 70-1151/2009-007-01. The unresolved issue involved the lack of a process hazards analysis that evaluated a potential fire event caused by the generation of hydrogen gas during an acid dissolution process in the IFBA area. The licensee contracted an engineering company to perform an analytical study to determine whether the process was capable of generating enough hydrogen gas to achieve a flammable mixture. The contractor conducted an onsite inspection and evaluated several operational scenarios including ventilation failures. The contractor's analysis concluded that at current production throughputs, the acid dissolution process was not capable of producing enough hydrogen gas to achieve the minimum flammability limit in all reasonable upset conditions. The inspector reviewed the contractor's analysis and concurred with the conclusion that hydrogen gas generated at the current process throughput would not reach the lower flammability limit. Unresolved issue 70-1151/2009-007-01 was closed.

Operator Training (88010)

- The inspector evaluated the training program structure and noted some programmatic changes during the last year. The licensee had recently expanded the scope of personnel required to participate in the Nuclear Safety Qualification Training (NSQT) to include contract employees who normally work in the production areas that contain nuclear material and/or contamination. The NSQT training program inclusion of contractors significantly expanded the level of radiological safety knowledge and skills beyond the existing general orientation training.

- A revised on-the-job-training (OJT) process was being gradually implemented throughout the production facility. The revised OJT process included new explanations of why some process steps and safety requirements were important and necessary. At a later time during evaluations, the operators were not only expected to know how to properly operate process equipment, but why some process steps and requirements were necessary. The inspector determined that training program elements were in compliance with license requirements and regulations. No findings of significance were identified.

- The inspector reviewed a sample of training records that included initial and annual refresher general employee training and job specific production training. Training requirements reviewed by the inspector were implemented and maintained in compliance for licensee employees and contractors in accordance with license requirements. No findings of significance were identified.

- The inspector reviewed training programs for production line operators. Operators received initial formalized training, testing, and were required to pass an oral review board for the specific equipment they would be operating. Documented on-the-job training and demonstration of competence was required prior to final approval for unsupervised equipment operation. No findings of significance were identified with the operator training documentation reviewed by the inspector.

- Initial and recurrent training for facility personnel and production operators was maintained by a computerized management system that was capable of managing training requirements. The inspector noted that the system was capable of tracking and reporting noncompliance issues by generating notices to appropriate supervisors. The operator log-in process in some production areas was able to automatically crosscheck current operator requirements against current procedural requirements to ensure the operator had completed review of the latest procedure revisions. No findings of significance were identified with the automated training management program.

- The inspector attended a Nuclear Safety and Qualification Training class being conducted for contractors. The instructor had 35 years experience at the facility and was knowledgeable of plant processes, procedures, and applicable safety issues. The students were attentive and actively participated in classroom discussions. During classroom discussions about personal dosimeter requirements and radiation areas at the facility, several questions were raised. The inspector listened as one mechanical contractor asked the instructor why he had been issued a dosimeter for working on the contamination controlled side of the facility and not issued a dosimeter for working in other radiation areas, specifically the final assembly area described as a radiation areas.

  The inspector questioned licensee management about the contractor's understanding that he was only wearing his dosimeter while in the contamination controlled side of the facility and not in the final assembly area. The licensee investigated the issue and determined that the contractor had been issued a dosimeter but it had been issued and stored on the contamination controlled side of the facility. The contractor believed that he was only allowed to wear his dosimeter on the contamination controlled side, not the remainder of the facility. The inspector noted that a dosimeter had also been described as a TLD and as a whole body badge.

  Licensee procedure RA-203, revision 27, titled General HP Rules and Recommendations, paragraph 6.7.2.F, stated that "Personnel issued dosimeters or ring badges shall wear these devices when in the Chemical Area, Radiation Areas, and/or when working with or near radioactive material." Licensee memorandum LTR-EHS-10-23 issued 2/18/2010, Subject: Prospective Analysis: Monitoring Requirements for 2010, table titled: "Matrix of Radiation Monitoring Requirements", specified that mechanical contractors are required to wear a whole body badge and that personnel working in the Final Assembly area were required to wear a whole body badge.

  Safety Condition S-1 of Special Nuclear Materials License No. SNM-1107 authorizes the use of licensed materials in accordance with the statements, representations, and conditions in the License Application and Supplements. Section 3.4.1 of the License Application, titled Procedure Structure, states, in part, that operations to assure safe, compliant activities involving nuclear material are conducted in accordance with approved procedures.

  Contrary to the above, on August 24, 2010 during a training activity for contractors, the inspector listened as a mechanical contractor stated that he had never worn his dosimeter in the Final Assembly area. Further discussions with the mechanical contractor confirmed that he had worn his dosimeter in the contamination controlled area, but had never worn his dosimeter while working in the Final Assembly area. The failure of the contractor to wear his dosimeter in accordance with licensee procedure RA-203 and memorandum LTR-EHS-10-23, was considered a violation of NRC requirements (VIO 70-1151/2010-006-01).

Exit Meeting Summary

The inspection scope and results were summarized on Friday August 27, 2010, with Cary Alstadt and members of his staff. No dissenting comments were received. No proprietary information was identified.

Key Points of Contact

Name	Title
C. Alstadt	Manager, Columbia Site
M. Rosser	Manager, Environment, Health and Safety
G. Couture	Manager, Licensing & Regulatory Program, EH&S
D. Precht	Manager, Operations

List of Items Opened, Closed, Discussed

Item Number	Status	Description
NOV 70-1151/2010-006-01	Opened	A mechanical contractor failed to wear his dosimeter in accordance with licensee procedure RA-203 and memorandum LTR-EHS-10-23.
URI 70-1151/2009-007-01	Closed	Licensee's evaluated the potential of hydrogen accumulation in the IFBA acid stripper area and determined that the accident scenario was not credible.
Event 45926	Discussed	License maintenance installed a replacement valve actuator 90 degrees out of position. The valve was identified as an item relied upon for safety (IROFS). The valve was repaired and successfully tested. The licensee implemented immediate corrective actions including the development of an installation procedure for valve actuators, and completed additional training of maintenance staff. Additional corrective actions are scheduled for completion by February 2011.
Event 45884	Discussed	While performing a functional test on a hot oil shutdown system, a circuit breaker actuator failed to turn off the circuit breaker. The shutdown system was defined as an IROFS. A licensee investigation concluded the failure was caused by a worn-out motorized actuator designed to turn off the circuit breaker. Licensee repaired and successfully tested the actuator system. Additional corrective actions planned include the replacement of all motorized circuit breaker actuators with passive fail-safe contactors, scheduled for completion by 12/31/2011.

Procedures and Documentation Reviewed

CA-002-11 Rev 1	Critical Steps Identification
CA-006 Rev 21	Columbia Plant Training Delivery System (TDS)
CA-014 Rev 6	Orientation Process
CA-208 Rev 4	Organizational Change Control
CA-220 Rev 0	Nuclear Safety Qualification Training
RA-104 Rev 24	Regulatory Review of Configuration Change Authorization
RA-105 Rev 6	EH&S Program and Document Administrative
RA-106 Rev 20	Internal Program, Formal Compliance, and Supplier Audits
RA-107 Rev 19	Corrective Action Process for Regulatory Events
RA-108 Rev 31	Safety Significant Controls
RA-110 Rev 7	Identification and Reporting of Substantial Safety Hazards
RA-203 Rev 27	General HP Rules and Recommendations
RA-121 Rev 6	Redbook Internal Reporting System
LTR-EHS-10-23	Prospective Analysis: Monitoring Requirements for 2010
LTR-EHS-10-94	TLD Badges Dose Assessment: Supplemental Training
LTR-EHS-10-08	CY 2010 2nd Quarter ALARA Summary
LTR-EHS-10-44	Redbook Failure Evaluation Report, 4/19/2010