UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

March 9, 2006

EA-06-042

Mr. Mark W. Fecteau, Plant Manager
Westinghouse Electric Company
Commercial Nuclear Fuel Division
P.O. Drawer R
Columbia, SC 29250

SUBJECT: NRC INSPECTION REPORT NO. 70-1151/2006-002

Dear Mr. Fecteau:

This refers to the results of the above-referenced Nuclear Regulatory Commission (NRC) inspection conducted at your Columbia, SC facility on the weeks of February 6-10, 2006, and February 13-17, 2006.

As a result of the inspection, the enclosed NRC Form 591FF, SAFETY INSPECTION, is being issued. The NRC has determined that violations of NRC requirements occurred. The violations are being treated as non-cited violations (NCVs), consistent with Section VI.A.8 of the Enforcement Policy, and are described in the enclosed 591FF Part 1. If you contest the NCVs or their significance, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, Region II, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001, and the NRC Resident Inspector at your facility.

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.

Thank you for your cooperation. If you have any questions, please call me at (404) 562-4731.

Sincerely,

/RA/
Jay L. Henson, Chief
Fuel Facility Inspection Branch 2
Division of Fuel Facility Inspection

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

Enclosure: (See page 2)

Enclosure: NRC Form 591FF Parts 1 and 3

cc w/encl:
Sam McDonald, Manager
Environment, Health and Safety
Commercial Nuclear Fuel Division
Westinghouse Electric Corporation
P. O. Box R
Columbia, SC 29250

Henry J. Porter, Assistant Director
Div. of Radioactive Waste Mgmt.
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Control
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PUBLIC

X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE X NON-SENSITIVE
ADAMS: X Yes ACCESSION NUMBER:_____

OFFICE	RII:DFFI	RII:DFFI					
SIGNATURE	JJ 3/9/06	MC 3/9/06					
NAME	JJimenez	MCrespo					
DATE	3/ /2006	3/ /2006	3/ /2006	3/ /2006	3/ /2006	3/ /2006	3/ /2006
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: E:\Filenet\ML060680594.wpd

U.S. NUCLEAR REGULATORY COMMISSION

NRC FORM 591FF PART 1
(11-2005)
10 CFR 2.201

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Westinghouse Electric Company Commercial Nuclear Fuel Division P.O. Drawer R Columbia, SC 29250 REPORT NO. 70-1151/2006-002	U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303

3. DOCKET NUMBER(S)	4. LICENSEE NUMBER(S)	5. DATE(S) OF INSPECTION
70-1151	SNM-1107	02/06-10/06, 02/13-17/06

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. 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. See list of items opened and closed on NRC Form 591FF Part 3.

☒ 3. The violations, 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.

2 Non-Cited Violations were discussed involving the following requirements and Corrective Actions:

On 1/05/05, the licensee made a courtesy call to the NRC to notify that unauthorized handmade gaskets were being used to perform maintenance on a safety significant vaporizer valves, which in one case made the valve unable to close. The use of this type of handmade gasket was not authorized and resulted in a violation of the configuration control program as defined in procedure TA-500, Columbia Manufacturing Plant Configuration Control. Also, a weakness was identified in that the type of gasket to be used was not clearly stated in the procedure. This violation is being treated as non-cited violation (NCV) 70-1151/2006-02-01. Corrective actions include implementation of a formal qualification of maintenance personal and enhanced communications between parties involved during modification of a system.

10 CFR 20.1802, Control of material not in storage, states that the licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. On 2/9/06, the licensee reported to the NRC (Event No. 42324) that a finished low enriched uranium fuel pellet was discovered in the parking lot of the facility. This event constituted a failure to meet 10 CFR.1802 and is being treated as NCV 70-1151/2006-02-02. Corrective actions include purchasing new hand monitors for detecting pellets on the step-off pads, with further long term corrective actions under review.

☐ 4. 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's Statement of Corrective Actions for Item 4, above.

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations 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 NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE'S REPRESENTATIVE	Not Applicable		
NRC INSPECTOR	Jose Jimenez, Manuel Crespo	***/RA/***	3/9/06

Enclosure

NRC FORM 591FF PART 3
(11-2005)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE

Westinghouse Electric Company
Commercial Nuclear Fuel Division
P.O. Drawer R
Columbia, SC 29250

2. NRC/REGIONAL OFFICE

U.S. Nuclear Regulatory Commission
Region II, Division of Fuel Facilities Inspection
61 Forsyth Street, Suite 23T85
Atlanta, GA 30303

REPORT NUMBER(S):

3. DOCKET NUMBER(S):	4. LICENSE NUMBER(S):	5. DATE(S) OF INSPECTION:
70-1151	**SNM-1107**	02/06-10/06, 02/13-17/06

6. INSPECTOR(S): Jose Jimenez, Manuel Crespo

7. INSPECTION PROCEDURES USED: **88020, 88010, 88025**

SUPPLEMENTAL INSPECTION INFORMATION

Executive Summary

The Westinghouse Facility fabricates low-enriched uranium fuel for use in commercial reactors. During the period of the inspection, operations were normal in most areas with the exception of Conversion. Tests being conducted for the start up of the Incinerator process caused calcium carbonates in the off gas stream to end up in the conversion area. This action resulted in the unexpected dissolution of uranium entrained in filters. The dissolved uranium was detected by process monitors and isolated the system. Isolation of this system caused the Conversion area to stop operations until the carbonates could be removed from the system.

This routine, announced inspection included observations and evaluation of the plant's operation, training, and maintenance and surveillance programs. 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:

Plant Operations

- Plant activities observed were performed safely and in accordance with license requirements. Housekeeping was adequate and no adverse effect on radiological safety or facility emergency egress was noted.

- Fuel manufacturing operations were conducted in accordance with approved operating procedures. The nuclear criticality safety training emphasized safety principles and practices.

- The licensee's configuration control program for facility modifications is going through restructuring and improvements as a result from previous occurrences captured by NRC violations and the licensee's audit program. The actions taken appear to be adequate to ensure that safety significant

Executive Summary (continued)

modifications are properly reviewed, approved, and documented. Actions taken include implementation of formal qualification of maintenance and operations personal, reinforcement of document verification and validation by responsible supervisors and safety disciplines involved, and enhanced communications between parties involved during modification of a system.

- Safety concerns were being identified, effectively communicated to managers, and resolved in a prompt manner.

Operator Training

- The licensee training program was being upgraded to include additional qualifications involving Environmental, Health, and Safety for maintenance and operation personnel.
- The licensee training program was adequate to ensure that operators are adequately trained for their positions.

Maintenance and Surveillance

- The licensee adequately performed necessary preventive maintenance and calibration work on safety significant controls according to procedure.
- Functional verifications of controls adequately tested the safety setpoints.
- The licensee was properly incorporating recommendations from audit findings into their maintenance program.
- Authorizations for maintenance work were properly obtained.

Inspector Follow-up Items (IFI):

- ***Temporary Instruction 2600/012*** : *Institutionalizing Concern Regarding Safety Issues Identified in selected Past Generic Communications*

  ! ***IN-99-030, "Failure of Double Contingency Based on Administrative Controls Involving Laboratory Sampling and Spectroscopic Analysis of Wet Uranium Waste"*** : The licensee's waste management program does not rely on laboratory sampling of waste streams. The current laboratory test is performed in case the licensee wants to do a second validation of the current methods for conducting the assays. The laboratory test is not used by the licensee as a double contingency control. Thus Information Notice (IN) 99-030 is not applicable to the licensee.

  - **IN-90-070, "Pump Expolsions Involving Ammonium Nitrate"**: This IN was originated by an event that occurred at the Westinghouse Facility in 1989. The appropriate corrective actions were put in place then due to the occurrence of the event. This accident scenario has been evaluated as part of the licensee's ISA process. Two IROFS were identified to prevent this event (SOLX-401 and SOLX-402). These IROFS are pump-off interlocks which prevents the pump from cavitation which is the precursor that could result in an explosion. Maintenance records were reviewed to verified periodic functional test were performed. No issues were identified.

  - ***IN-99-005, "*** **Inadvertent discharge of Carbon Dioxide Fire Protection System and Gas Migration "** : Carbon Dioxide Fire Suppression systems are not present at the Westinghouse fuel manufacturing facility. Thus IN 99-005 is not applicable to the licensee.

Items Opened, Closed, And Discussed

Item Number	Status	Type	Description
70-1151/2006-002-01	Opened/Closed	NCV	Failure to follow configuration control procedures.
70-1151/2006-002-02	Opened/Closed	NCV	Pellet found in parking lot.