



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

September 13, 2007

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

SUBJECT: NRC INSPECTION REPORT NO. 70-1151/2007-004 AND NOTICE OF VIOLATION

Dear Mr. Alstadt:

This refers to the results of the above-referenced Nuclear Regulatory Commission (NRC) inspection conducted at your Columbia facility on August 13-16, 2007. The purpose and scope of this fire safety program inspection are described in the enclosed NRC Form 591FF, Safety Inspection Report and Compliance Inspection (Enclosure 1).

Based on the results of this inspection, the NRC has determined that two violations of NRC requirements occurred. The violations were evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is available on the NRC's Web site at [www.nrc.gov](http://www.nrc.gov).

One of the violations, which concerns the condition and preventive maintenance of fire doors, is described in the enclosed NRC Form 591FF, Part 1. The NRC has concluded that the licensee's corrective actions for this violation were adequate and these actions were documented in Part 2 of the NRC Form 591FF. Therefore, you are not required to respond to this violation and need only to acknowledge receipt of this form by signing and dating it in the appropriate spaces. You are requested to retain the original and return a signed and dated copy to this office within ten days. Please retain the form in your files.

The second violation concerned a non-compliance with fire watch and hot work permit procedures. This violation is cited in the enclosed Notice of Violation (Enclosure 2). The violation was cited because it was identified as a result of an event where the root cause was obvious and the licensee had prior opportunity to identify the problem but failed to take action that would have prevented the event. As described in the Notice of Violation, you are required to submit a written response to this violation.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (The Public Electronic Reading Room).

C. Alstadt

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Should you have any questions concerning this letter, please contact us.

Sincerely,

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

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

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

c w/encls:  
Marc Rosser, Manager  
Environment, Health and Safety  
Commercial Nuclear Fuel Division  
Westinghouse Electric Corporation  
Drawer R  
Columbia, SC 29250

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PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE

ADAMS: X Yes      ACCESSION NUMBER: \_\_\_\_\_

OFFICE	RII:DFFI	RII:DFFI					
SIGNATURE	OL9/11/07	RG 9/12/07					
NAME	OLopez	RGibson					
DATE							
E-MAIL COPY?	YES	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

<b>1. LICENSEE/LOCATION INSPECTED:</b> Westinghouse Electric Company Commercial Nuclear Fuel Division Columbia, SC 29250  INSPECTION REPORT(S): 70-1151/2007-004	<b>2. NRC/REGIONAL OFFICE</b> U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303
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<b>3. DOCKET NUMBER(S):</b> 70-1151	<b>4. LICENSEE NUMBER(S):</b> SNM-1107	<b>5. DATE(S) OF INSPECTION:</b> 08/13-16/2007
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**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.
- 3. 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, NUREG-1600, to exercise discretion, were satisfied.

\_\_\_\_\_ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

- 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)

A violation with two examples was identified for the failure to ensure the integrity of a fire door in the incinerator process area.

- 1. Safety Condition No. 1 of License No. SNM-1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated April 30, and supplements thereto. Section 3.1 of the License Application, requires, in part, to assure that design changes will not adversely impact safety, a formal review process will be established to analyze modifications to existing systems and components.

**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	Gerard F. Couture	<i>Gerard F. Couture</i>	9/20/07
NRC INSPECTOR	Omar R. López	<i>Omar R. Lopez</i>	9/11/07

### SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE  <b>Westinghouse Electric Company Commercial Nuclear Fuel Division Columbia, SC 29250</b>  REPORT NUMBER(S)      70-1151/2007-004	2. NRC/REGIONAL OFFICE  <b>U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303</b>	
3. DOCKET NUMBER(S)  70-1151	4. LICENSE NUMBER(S)  SNM-1107	5. DATE(S) OF INSPECTION  08/13-16/2007

(Continued)

Contrary to the above, prior to August 13, 2007, the licensee did not conduct a formal review process to analyze modifications to a fire door in the incinerator process area. Specifically, the closing and latching mechanisms for the fire door were removed without a formal review which resulted in a degradation of the door as a fire barrier.

2. Safety Condition No. 1 of License No. SNM-1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated April 30, and supplements thereto. Section 8.1.1 (f) of the License Application, states that inspection, testing, and maintenance of fire protection equipment will be covered by the fire protection preventive maintenance program.

Contrary to the above, as of August 13, 2007, the licensee failed to maintain fire protection equipment in accordance with the fire protection preventive maintenance program. Specifically, the licensee failed to exercise the 3 walk-in doors and verify that they closed and latched in the incinerator process area as required by Preventive Maintenance Work Order No. 425744. As a result the licensee did not identify a degraded condition in one of the fire doors.

As corrective actions, the licensee repaired the fire door using UL listed components. The licensee also provided additional training to the personnel related to the importance and use of the configuration control program and the required inspections of the incinerator area fire barriers.

*Docket File Information*  
**SAFETY INSPECTION REPORT  
AND COMPLIANCE INSPECTION**

1. LICENSEE <b>Westinghouse Electric Company Commercial Nuclear Fuel Division Columbia, SC 29250</b> REPORT NUMBER(S) 70-1151/2007-004		2. NRC/REGIONAL OFFICE <b>U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303</b>	
3. DOCKET NUMBER(S) 70-1151	4. LICENSE NUMBER(S) SNM-1107	5. DATE(S) OF INSPECTION 08/13-16/2007	
6. INSPECTION PROCEDURES USED: 88055 (Fire Safety)			

**SUPPLEMENTAL INSPECTION INFORMATION**

**PROGRAM SCOPE**

The Westinghouse Facility fabricates low-enriched (less than 5% U235) uranium fuel into fuel assemblies for use in both pressurized and boiling water reactors. During the inspection period, there were no plant upsets or unusual operational occurrences. This routine, announced inspection was to evaluate the fire safety program. The inspection identified the following aspects of the licensee program as outlined below:

- The inspector reviewed selected fire safety systems, including Items Relied On For Safety for the calciner and sintering furnaces, and determined that they were implemented and maintained properly.
- The process, equipment, and material storage areas were operated in accordance with fire safety requirements. The licensee adequately controlled combustible and flammable materials throughout the facility. The inspector observed and discussed with operations personnel the handling of zirconium fines. No safety problems were observed.
- The inspector reviewed maintenance records and walked down selected components of the fire detection system and noted that they were implemented and maintained properly. The reviewed components included fire alarm central station, smoke detectors, and heat detectors.
- The inspector reviewed maintenance records and walked down sections of the sprinkler systems and fire barriers. The inspector confirmed that the sprinklers were not obstructed and that the water supply to the system was readily available with correct valve positioning and pumping capacity. A violation with two examples was identified for the failure to ensure the integrity of a fire door in the incinerator process area.
- The inspector reviewed the pre-fire plan for the chemical area. No safety problems were identified.

*Docket File Information*  
**SAFETY INSPECTION REPORT  
AND COMPLIANCE INSPECTION**

1. LICENSEE <b>Westinghouse Electric Company Commercial Nuclear Fuel Division Columbia, SC 29250</b> REPORT NUMBER(S) 70-1151/2007-004		2. NRC/REGIONAL OFFICE <b>U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303</b>	
3. DOCKET NUMBER(S) 70-1151	4. LICENSE NUMBER(S) SNM-1107	5. DATE(S) OF INSPECTION 08/13-16/2007	
6. INSPECTION PROCEDURES USED : 88055 (Fire Safety)			

**SUPPLEMENTAL INSPECTION INFORMATION**

**PROGRAM SCOPE**

**Event Follow Up**

**Event No. 43531**

The inspector reviewed a small fire that occurred in the pellet process area during hot work activities and the immediate corrective actions that the licensee took in response to the event. The fire started when sparks traveled to the Line 4 polypak lift and ignited small grease/hydraulic oil spots and dust that had accumulated on the floor under the polypak elevator. The fire could not be reached due to grating around the lift and a contractor employee extinguished the fire with a hard hat full of water. The licensee had an IROFS (PELFIRE-902) which restricted the use of water for firefighting in the pellet and rod areas. The licensee required personnel to use dry chemical fire extinguishers to fight incipient fires in these areas. The contractor employee admitted that he knew from his training that large amounts of water were not allowed in the area but that he felt that a helmet full of water would be acceptable. Although the intent of PELFIRE-902 is to restrict the use of large volumes of water (as produced by fire hoses) to extinguish a fully developed fire, the licensee had a policy in place to restrict the use of water in the pellet/rod area. The licensees' preliminary investigation revealed that the contractors were not trained in this policy.

The licensee's preliminary investigation also revealed that the training curriculum for the contractor group did not include fire watch and use of fire extinguisher training. Based on interviews, the inspector determined that the contractors thought that the fire watch duty was one that is shared by the group and was not the responsibility of a sole dedicated person. The inspector noted that a hot work permit was issued for the welding activity. However, the licensee failed to ensure that the work area was free of combustible materials as required by the licensee hot work procedure. As immediate corrective actions the licensee halted all construction activities and conducted additional training related to fire watch duties and the use of water in the pellet/rod area. A violation with two examples was identified for the failure to follow the hot work and fire watch procedures.

**Items Opened, Closed, And Discussed**

<u>Item Number</u>	<u>Status</u>	<u>Type</u>	<u>Description</u>
70-1151/2006-04-01	Opened/Closed	VIO	Failure to ensure integrity of a fire door
70-1151/2007-04-02	Opened	VIO	Failure to follow hot work and fire watch procedures

## NOTICE OF VIOLATION

Westinghouse Electric Company  
Columbia, SC

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

During an NRC inspection conducted on August 13-16, 2007, a violation of NRC requirements was identified. In accordance with NUREG-1600, "General Statement of Policy and Procedure for NRC Enforcement Actions," the violation is listed below:

Safety Condition No. 1 of License No. SNM-1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated April 30, and supplements thereto.

Section 3.4.1 of the License Application, "Procedures," requires, in part, that operations to assure safe, compliant activities involving nuclear material will be conducted in accordance with approved procedures.

Contrary to the above, the licensee failed to conduct operations to assure safe, compliant activities involving nuclear material in accordance with approved procedures as described in the following examples:

1. Procedure No: SYP-305, Fire Watch Safety, Revision 5 dated March 22, 2007, Section 2.0 states, in part, that only trained and qualified operators shall be permitted to perform fire watch duties.

On July 26, 2007, a contractor worker performed fire watch duties and this individual was not trained and qualified as a fire watch.

2. Procedure No: SYP-207, Cutting, Welding, and Hot Work, Revision 20 dated March 29, 2007, Section 6.1.1 states, in part, that contractors will acquire a hot work permit tag, per example in SYS-207-1, prior to performing any cutting, welding, or open flame operations in areas not established for these operations.

Controlled form SYS-207-1, Hot Work Permit Tag requires that the work area be free of flammable, combustible, and hazardous materials.

On July 26, 2007, the licensee failed to ensure that the work area was free of combustible materials prior to the start of welding activities. Specifically, the licensee did not detect and remove/shield small grease/hydraulic oil spots and dust that had accumulated on the floor under a polypak elevator in the immediate area. These materials were ignited by sparks from the welding performed in the pellet process area.

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

Enclosure 2

Pursuant to the provisions of 10 CFR 2.201, Westinghouse Electric Company, 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 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 publically available, 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 safeguard's 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 requested to post this Notice within two working days.

Dated this 13<sup>th</sup> day of September, 2007