



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

March 14, 2007

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

SUBJECT: CORRECTED NRC INSPECTION REPORT NO. 70-1151/2007-001 AND
NOTICE OF VIOLATION

Dear Mr. Alstadt:

This refers to the results of the above-referenced Nuclear Regulatory Commission (NRC) inspections conducted at your Columbia facility on February 5-9, 2007 and February 12-15, 2007. It was noted that NRC Form 591 Part 3 of the Inspection Report dated February 23, 2007, did not contain the results of the inspection conducted at your facility from February 12-15, 2007. The ADAMS Accession Number for that document is ML070540357. Please exchange the report dated February 23, 2007, with the enclosed corrected NRC Form 591 FF Parts 1 and 3. We apologize for any inconvenience that may have resulted from this error.

As a result of the inspections, the enclosed NRC Forms 591FF, SAFETY INSPECTION REPORT, is being issued. The enclosed forms indicate that one violation was identified during the inspection of your licensed activities. The violation is cited in Part 2 of the 591FF, SAFETY INSPECTION REPORT. The violation was the result of your staff's failure to implement certificate of compliance requirements for NRC certified shipping packages. This violation was evaluated in accordance with the "NRC Enforcement Policy," which is included on the NRC's web site at <http://www.nrc.gov/what-we-do/regulatory/enforcement.html>. During the inspection, the inspector reviewed your corrective actions and no further response to the violation is needed. This matter is considered closed.

Since the NRC has already closed this matter, it is neither requested nor required that Part 1 of the enclosed NRC Form 591FF be signed by a Westinghouse Electric Company representative. Please retain this form in your files.

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>.

C. Alstadt

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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: NRC Form 591FF Parts 1, 2, and 3

c w/encl:

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

Henry J. Porter, Assistant Director
Division of Waste Management
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X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE X NON-SENSITIVE

ADAMS: X Yes ACCESSION NUMBER: _____

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|--------------|------------|------------|----------------|----------------|----------------|----------------|----------------|
| OFFICE | RII:DFFI | RII:DFFI | | | | | |
| SIGNATURE | SS 3/13/07 | RG 3/13/07 | | | | | |
| NAME | SSubosits | RGibson | | | | | |
| DATE | 03/ /2007 | 03/ /2007 | March 14, 2007 | March 14, 2007 | March 14, 2007 | March 14, 2007 | March 14, 2007 |
| E-MAIL COPY? | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO |

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

| | |
|---|--|
| 1. LICENSEE/LOCATION INSPECTED: Westinghouse Electric Company Commercial Nuclear Fuel Division 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 |
| INSPECTION REPORT(S) : 70-1151/2007-001 | |

| | | |
|---|--|---|
| 3. DOCKET NUMBER(S) : 70-1151 | 4. LICENSE NUMBER(S): SNM-1107 | 5. DATE(S) OF INSPECTION: 2/5 - 2/9/2007 and 2/12 - 2/15/2007 |
|---|--|---|

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)

See attached Form 591FF Part 2.

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 | | | |
| NRC INSPECTOR | Stephen Subosits/Richard Gibson, Jr. | /RA/ | 3/13/07 |

(11-2005)

10 CFR 2.201

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

| | | |
|---|--|---|
| 1. LICENSEE Westinghouse Electric Company Commercial Nuclear Fuel Division 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 70-1151/2007-001 | | |
| 3. DOCKET NUMBER(S) 70-1151 | 4. LICENSE NUMBER(S) SNM-1107 | 5. DATE(S) OF INSPECTION 2/5 - 2/9/2007 and 2/12 - 2/15/2007 |

Notice of Violation

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.

Procedure MOP-730713, "Loading Fuel Assemblies in MCC3 and MCC4 Shipping Packaging," Revision 92, Section 5.1, states, in part, make sure all restraining pressure clamps are aligned with structural grids and no grid spring(s) shows at either side of the pad.

Contrary to the above, on August 12, 2006, during a receipt inspection of two fresh fuel assemblies packaged and shipped by the licensee, a Part 50 licensee found that eight of the nine restraining pressure clamps were not aligned on the structural grids such that no grid springs showed on either side of the pads.

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

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed in the written report that was submitted in accordance with 10 CFR 71.95, on October 9, 2006.

However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with a copy to the Regional Administrator, Region II within 30 days of the date of the letter transmitting this Notice.

(11-2005)

10 CFR 2.201

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

| | | |
|---|--|---|
| 1. LICENSEE Westinghouse Electric Company Commercial Nuclear Fuel Division Columbia, SC 29250 REPORT 70-1151/2007-001 | 2. NRC/REGIONAL OFFICE U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303 | |
| 3. DOCKET NUMBER(S) 70-1151 | 4. LICENSE NUMBER(S) SNM-1107 | 5. DATE(S) OF INSPECTION 2/5 - 2/9/2007 and 2/12 - 2/15/2007 |

6. INSPECTION PROCEDURES USED 88010, 88025, and 88030

SUPPLEMENTAL INSPECTION INFORMATION**Executive Summary**

The Westinghouse Facility fabricates low-enriched 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 included observations and evaluation of the radiation protection, maintenance, and operator training programs. The inspection involved observations of work activities, reviews of selected procedures and records, and interviews with plant personnel. The inspection identified the following aspects of the licensee programs as outlined below:

Radiation Protection (IP 88030)

- The radiation protection program was being implemented in accordance with regulations and license commitments. Self-assessments by the licensee and implementation of the ALARA (as low as reasonably achievable) programs were adequate.
- The observed equipment used for detecting the presence of radiation and contamination was properly maintained, and performed the intended safety function in a reliable manner. The survey instruments were calibrated by an approved outside vendor in accordance with the licensee's procedures.
- The external exposure monitoring program was implemented in a manner to maintain doses ALARA. The exposures were less than the occupational limits in 10 CFR Part 20.1201.
- Internal exposures were significantly less than the limits of 10 CFR Part 20.1201. However, a weakness was identified in the implementation of the licensee's in-vitro bioassay program. From the review of urinalysis records of employees dismissed between the period January 2004 to February 2007, the inspector identified that three employees signed separation papers indicating that they had submitted a urine sample upon separation from employment; however, no record(s) regarding the results of the urinalysis could be found. The inspector reviewed the records of the individuals' monthly and annual urine results for that period and determined that there was no significant uptake by the dismissed employees. The licensee intended to implement more rigorous program to ensure that bioassay samples from departing employees are analyzed.

Executive Summary (continued)

- Respiratory protection equipment issuance and training assured that equipment was obtained by certified users only. The licensee maintained adequate records to demonstrate adequate implementation of the respiratory protection program.
- Radiological safety postings and radiation chemical work permits (RCWP) were properly used to communicate potential hazards and protective equipment requirements to workers.
- The radiation and contamination survey programs were appropriately implemented to protect workers, and to identify potential work areas posing an internal or external radiation hazard to workers. A review of the licensee's corrective action programs (CAPs) indicated that radiation and contamination problems and events were entered into the tracking system plant wide and were appropriately resolved.
- The licensee's ALARA program was properly implemented.

Operator Training / Retraining (IP 88010)

- The licensee's quarterly Environmental, Health and Safety (EH&S) training modules contained adequate information on radiological safety, regulatory, and emergency response topics to meet the general employee training requirements set forth by 10 CFR 19.12 and license requirements.
- The inspector conducted interviews with plant operators to verify their understanding of process operations, safety significant controls and Items Relied on for Safety (IROFS), criticality safety concepts and applicable operating procedures. Based on the interviews, the inspector concluded that the operator training regimen has provided qualified operators sufficient knowledge to perform plant operations safely.
- The inspector verified that qualified operators understood On-the-Job Training (OJT) and oversight requirements for operators undergoing qualification training at their watchstations.

Maintenance and Surveillance of Safety Controls (IP 88025)

- The inspector reviewed work order packages confirmed that work order planning process contained sufficient guidance and management reviews/approvals to ensure safety of the workers.
- Observation of maintenance personnel work activities during the inspection indicated that work was being performed safely and in accordance with the licensee maintenance procedures.
- Observation of surveillance testing confirmed it met the acceptance criteria and was adequate for equipment and instrumentation with IROFS or safety significant control functions.
- Based on a review of corrective action program issues from the prior six months, the inspector determined maintenance and operations personnel utilized the licensee's corrective action program to identify maintenance activities and issues which required management attention.
- The inspector reviewed periodic and preventive maintenance (PM) records for selected IROFS and safety significant controls and concluded the PMs were conducted with satisfactory results within the required time frequency specified in the licensee's Integrated Safety Analysis (ISA) and associated procedures.

Executive Summary (continued)**Violation**

- (VIO) 70-1151/2007-01-01 - "Transportation," - A violation was identified for the licensee failure to align pressure pads with grids such that grid springs are not visible along either long side of the pressure pad of fresh fuel assemblies prior to shipment.

Corrective actions taken by the licensee: Remedial Actions: (1) A meeting was held with all packing personnel to review the event in detail and solicit feedback on what could be done to prevent recurrence of the event, (2) a team leader from the first shift was temporarily moved to the second shift for oversight until a realignment of operator experience balance was implemented to ensure that experienced personnel are on both shifts, and (3) packing operators and QC verifiers opened all containers on site and verified all steps as well as having QC conduct an independent verification of steps ensuring assemblies were packed correctly.

Interim Actions: The packing operators were provided a listing of appropriate contract/container configuration for MCC packages to be used for configuration verification, and initiated an independent verification of all steps required by the packing area inspection checklist.

Actions to Prevent Recurrence: (1) disciplinary actions were taken against the operators that failed to perform their assigned task, as required by procedure, (2) improved current systems (including procedures, tooling, and information systems) used to validate and verify container configurations against the contract and fuel assemblies being packed into specific containers, (3) implement QC oversight to provide independent verification of container acceptance prior to release for shipping, and (4) perform an effectiveness review to assess the container control systems ability to accurately validate, verify, and track container configurations through all phases of container movement including container refurbishment and turnaround.

Follow-up Items:

- (URI) 70-1151/2006-01-01 - This item involved the evaluation of the extremity monitoring program in the pelleting area due to changes in personnel and operations, including the review of current monitoring procedures and training in this area. The inspector determined that the licensee conducted an extremity evaluation (ring study) in the pelleting area and concluded that there was no significant difference between the two hands compared to normal random variation. The licensee decided that based on the study, a ring badge would be worn on the dominant hand in the pelleting areas. This URI is considered closed.
- (IFI) 70-1151/2005-08-02 - This item involved the inability to clearly hear the voice communication system (VCS) in the conversion area during normal operations. The licensee stated that funds had been approved to implement the plan to upgrade the VCSs throughout the plant, and that work is scheduled for the end of February 2007. This IFI will remain open.

Executive Summary (continued)**List of Items Opened, Closed**

| <u>Item Number</u> | <u>Status</u> | <u>Type</u> | <u>Description</u> |
|--------------------|---------------|-------------|---|
| 70-1151/2006-01-01 | Closed | URI | Re-evaluate the extremity monitoring program in the pelleting area due to changes in personnel and operations |
| 70-1151/2005-08-02 | Open | IFI | Inability to Clearly Hear the VCS in the Conversion Area During Normal Operation |
| 70-1151/2007-01-01 | Open/Closed | VIO | Failure to align pressure pads with grids such that grid springs are not visible along either long side of the pressure pad of fresh fuel assemblies prior to shipment. |