



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

February 2, 2004

NMED No. 030573

Westinghouse Electric Company
ATTN: Mr. M. Fecteau, Manager
Columbia Plant
Commercial Nuclear Fuel Division
Drawer R
Columbia, SC 29250

**SUBJECT: NRC SUPPLEMENTAL REPORT FOR INSPECTION REPORT
NO. 70-1151/2003-008 AND NRC OFFICE OF INVESTIGATIONS REPORT
NO. 2-2003-047**

Dear Mr. Fecteau:

This letter refers to the unresolved item (URI) in NRC Inspection Report No. 70-1151/2003-008 and the subsequent review by the NRC Office of Investigations (OI) concerning actions at the Commercial Fuel Fabrication Facility located in Columbia, South Carolina. A finding from the inspection indicated that a temporary procedure to compact ventilation filters was approved without performing a safety analysis. A URI, 70-1151/03-08-02, was identified in the inspection report such that a determination of the potential violation of NRC requirements was deferred until your investigation had been completed. The inspection report addressing this issue was transmitted to you by letter dated August 22, 2003. The OI investigation was conducted to review specific issues associated with the potential willfulness of the finding. Enclosed is a synopsis of the OI investigation. OI did not substantiate that the principle engineer deliberately violated licensee procedures.

Based on the findings from Inspection Report No. 70-1151/2003-008 and information from OI Report 2-2003-047, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. This violation is being treated as a non-cited violation (NCV), consistent with Section VI.A. of the Enforcement Policy. This NCV is described in the subject inspection report. If you contest the violation or significance of this NCV, 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.

In accordance with 10 CFR 2.790 of NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in NRC's 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).

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

Sincerely,

/RA/

Jay Henson, Chief
Fuel Facilities Inspection Branch 2
Division of Fuel Facility Inspection

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

Enclosures: 1. OI Synopsis (Case No. 2-2003-047)
2. NRC Supplemental Inspection Report

cc w/encls:
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Distribution w/encl.: (See page 3)

Distribution w/encls:

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NAME	O. Lopez	D.Seymour	L.Williamson	C.Evans	
DATE	1/29/04	1/29/04		2/2/04	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO
PUBLIC DOCUMENT	YES NO				

SYNOPSIS

This investigation was initiated by the U.S. Nuclear Regulatory Commission, Office of Investigations, Region II, on August 11, 2003, to determine if a principle engineer at the Westinghouse Electric Company Columbia Fuel Site deliberately generated a temporary procedure to compact air filter paper without placing the nuclear criticality safety engineering function on review for approval of the temporary procedure. Despite the temporary procedure expiring on March 19, 2003, it appeared that drums of compacted filter media continued to be created until April 2003.

Based on the evidence developed during this investigation, the allegation that a principal engineer deliberately violated licensee procedures was not substantiated.

Approved for release on February 2, 2004 - SES

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FIELD OFFICE DIRECTOR, OFFICE OF INVESTIGATIONS, REGION II~~

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1151

License No.: SNM-1107

Report No.: 70-1151/2003-008

Licensee: Westinghouse Electric Corporation

Facility: Commercial Nuclear Fuel Plant

Location: Columbia, South Carolina

Dates: January 22 - 28, 2003 (in-office)

Inspector: O. López, Fuel Facility Inspector

Approved By: Jay Henson, Chief
Fuel Facilities Inspection Branch 2
Division of Fuel Facility Inspection

EXECUTIVE SUMMARY

Commercial Nuclear Fuel Division Supplemental Report for NRC Inspection Report 70-1151/2003-008

The inspector performed an in-office review of unresolved item (URI) 70-1151/2003-08-02 identified in Inspection Report No. 70-1151/2003-008. The URI addressed the circumstances of an event reported by the Westinghouse staff on July 15, 2003, involving the approval of a temporary procedure to compact ventilation filters without performing a safety analysis.

Plant Operations

- A non-cited violation was identified for operating without a criticality safety analysis. The inspector determined that corrective actions taken by the licensee appeared appropriate.

REPORT DETAILS

1. Follow up on Previous Events

a. Inspection Scope

The inspector reviewed unresolved item (URI) 70-1151/03-08-02, Temporary Procedure to Compact Ventilation Filters Approved Without Performing Safety Analysis, identified during a previous NRC inspection conducted from July 23 - 25, 2003, and documented in Inspection Report No. 70-1151/2003-008.

The inspector reviewed the licensee's root cause analysis, the NRC Office of Investigation's report, and performed an independent assessment of the event. The inspector conducted interviews with licensee personnel and reviewed pertinent records.

b. Observations and Findings

The licensee reported that on January 23, 2003, a process engineer generated a temporary procedure to compact ventilation filter paper that had not been reviewed by the Nuclear Criticality Safety (NCS) function. The temporary procedure was approved and the process was performed, in violation of the bounding assumptions of the Integrated Safety Assessment (ISA). The process engineer later placed the same process in a formal operating procedure that was reviewed by NCS. On February 20, 2003, the NCS reviewer withheld approval of the formal operating procedure since the proposed process would violate the bounding assumptions of the ISA and, therefore, require further analysis and an ISA license annex revision before approval could be given. The NCS engineer informed the process engineer that such analysis was necessary and it was placed in the NCS work queue. The process engineer did not inform the NCS engineer that the process had already been performed. When starting the safety analysis on June 30, 2003, the NCS engineer found records of compacted filter paper and a subsequent investigation revealed the temporary procedure on July 1, 2003. The temporary procedure had been retired on March 19, 2003, although drums of compacted filter media continued to be created in the item control system until at least April 2003. The content of each drum was reviewed and found to contain less than 50 grams of uranium-235, well within the safe mass limit.

The inspector noted that Administrative Procedure CA-002, "Columbia Plant Procedure System," Revision 23, indicated the use of a single safety manager as a reviewer. The manager determined which of the safety disciplines, if any, needed to review the procedures. As a corrective action the licensee amended CA-002, to require that temporary procedures in the chemical areas and other areas that handle special nuclear material be approved by all safety disciplines. Another contributing factor was the lack of communication between operations and the NCS function, which may have helped avoid continuation of the compacting after the formal operating procedure was not approved. As a corrective action, the licensee is in the process of retraining operations personnel in the understanding of the plant safety basis.

The NCS function evaluated the process for compaction of ventilation filters and determined that the process could be done safely. Chemical Operating Procedure, COP-831019, "Filter Disassembly Process," Revision 11, was reviewed to incorporate

the compaction of ventilation filters and adequate criticality safety limits. The inspector determined that corrective actions taken by the licensee were adequate.

Based on the review of the Office of Investigation report, and discussions with licensee personnel, the inspector could not conclusively determine if any drums of filter media were compacted after the temporary procedure was retired on March 19, 2003. Based on a review of drum assay data, the licensee determined that a few drums may have been compacted after March 19, 2003, but it was also possible that the drums were compacted before that date and assayed after that date.

Safety Condition No. S-1 of Special Nuclear Material License No. 1107, requires that material be used in accordance with statements, representations, and conditions in the License Application dated April 30, 1995, and supplements thereto. Chapter 6.0, Section 6.1.1 of the License Application, requires that for each process within the system, a defense of one or more controlled parameters will be employed and documented within the Criticality Safety Analysis (CSA), Criticality Safety Evaluation (CSE), or ISA. The defense consists of the set of bounding assumptions, criticality safety limits, and criticality safety constraints that, as a set, are uniquely sufficient to maintain the minimum sub-critical margin against an initiating event. Contrary to the above, from January 23, 2003 to March 19, 2003, a process to compact ventilation filters was performed without a Criticality Safety Analysis. This licensee-identified and corrected violation is being treated as a non-cited violation (NCV), consistent with Section VI.A.8 of the NRC Enforcement Policy (NCV 70-1151/2003-08-03, Operating without a Criticality Safety Analysis).

c. Conclusion

A NCV was identified for operating without a CSA. The inspector determined that corrective actions taken by the licensee appeared appropriate.

2. Exit Meeting

The inspection scope and results were summarized on January 28, 2004, with the persons indicated in the Attachment, via teleconference. The inspector described the areas inspected and discussed in detail the inspection results. No dissenting comments were noted during the teleconference.

ATTACHMENT

1. LIST OF PERSONS CONTACTED

Licensee

*J. Heath, Integrated Safety Engineering Manager
D. Colwell, Safeguards Coordinator
C. Snyder, NCS Engineer

*Denotes those present at the exit meeting on July 24, 2003, via teleconference.

2. INSPECTION PROCEDURES USED

IP 88020 Regional Nuclear Criticality Safety Inspection Program

3. LIST OF ITEMS OPENED AND CLOSED

<u>Item Number</u>	<u>Status</u>	<u>Description</u>
70-1151/2003-08-02	Closed	URI - Temporary Procedure to Compact Ventilation Filters Approved Without Performing Safety Analysis
70-1151/2003-08-03	Open / Closed	NCV - Operating without a Criticality Safety Analysis

4. LIST OF ACRONYMS USED

CSA	Criticality Safety Analysis
CSE	Criticality Safety Evaluation
ISA	Integrated Safety Assessment
NCS	Nuclear Criticality Safety
NCV	Non-cited violation
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records System
URI	Unresolved Item