



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

December 17, 2010

EA-10-153

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

SUBJECT: PRE-DECISIONAL ENFORCEMENT CONFERENCE

Dear Mr. Precht:

This letter refers to the inspection conducted from July 26 through October 28, 2010, at your Columbia, SC facility. The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions in your license. Within these areas, the inspections consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. Part of the inspection was a supplemental inspection to follow up on issues related to Event Number 46122, which you reported to the NRC Operations Center on July 23, 2010 and Event Number 46138, which you reported to the NRC Operations Center on July 29, 2010. The details of this inspection including the details of the apparent violations as discussed in the Enclosure can be found in Inspection Report No. 70-1151/2010-202 (ADAMS Accession Number ML102240185).

Based on the results of the inspection, six apparent violations were identified and are being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The apparent violations involve: 1) the failure to establish double contingency; 2) the failure to establish items relied on for safety as needed to meet the performance requirements; 3) the failure to classify a criticality accident scenario as credible in accordance with approved procedures; 4) the failure to establish adequate operating procedures for the filter press; and 5) and 6) two examples of failing to make a change to facility equipment in accordance with approved procedures. Since the NRC has not made a final determination in this matter, a Notice of Violation is not being issued for these inspection findings at this time. In addition, please be advised that the number and characterization of apparent violations described in the referenced inspection report may change as a result of further NRC review.

An open pre-decisional enforcement conference to discuss the apparent violations has been scheduled for 8:30 a.m. on January 12, 2011, per a telephone conversation between Mr. Gerard Couture of your staff and Ms. Mary Thomas of the NRC on December 15, 2010. This

conference will be open to public observation. The decision to hold a pre-decisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to assist the NRC in making an enforcement decision. The conference will provide an opportunity for you to present your perspective on these matters and any other information that you believe the NRC should take into consideration in making an enforcement decision. When presenting your perspective, please include information related to whether the violations occurred, information to determine the significance of the violations, information related to the identification of the violations, and information related to any corrective actions taken or planned to be taken. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations. In addition, Westinghouse received a violation on April 23, 2009 (VIO 70-1151/2009-201-01) regarding the failure to correctly apply criteria from the ISA Handbook for classifying events as incredible when relying on facility Safety-Significant Controls. Please include information related to the extent to which your corrective actions taken in regard to Violation 70-1151/2009-201-01 could have precluded the apparent violations.

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding these apparent violations is required at this time.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, 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.

Sincerely,

**/RA by A. Gody/**

Anthony T. Gody, Director  
Division of Fuel Facility Inspection

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

Enclosure: Summary of Apparent Violations

cc w/encl: (See page 3)

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Sincerely,

**/RA by A. Gody/**

Anthony T. Gody, Director  
Division of Fuel Facility Inspection

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

Enclosure: Summary of Apparent Violations

cc w/encl: (See page 3)

PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE  
ADAMS: Yes      ACCESSION NUMBER: \_\_\_\_\_       SUNSI REVIEW COMPLETE

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	NMSS:FCSS	NMSS:FCSS	NMSS:FCSS	RII:EICS
SIGNATURE	/RA by CC/	/RA by MT/	/RA by MS/	/RA by TM via email/	/RA by PS via email/	/RA by MB via email/	/RA by CE/
NAME	CCramer	MThomas	MSykes	TMarenchin	PSilva	MBailey	CEvans
DATE	12/15/2010	12/15/2010	12/15/2010	12/16/2010	12/16/2010	12/16/2010	12/15/2010
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

cc w/encl:  
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

Letter to: Mr. David Precht from Anthony T. Gody dated December 17, 2010

Subject: Pre-Decisional Enforcement Conference

Distribution w/encl:

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## SUMMARY OF APPARENT VIOLATIONS

1. Apparent Violation (AV) 70-1151/2010-202-01: Safety Condition S-1 of Special Nuclear Material License (SNM) No. 1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated June 27, 2007, and supplements thereto.

License Section 6.1.1 states, in part, the Double Contingency Principle of ANSI/ANS-8.1(1998) is the basis for design and operation of processes using SNM within the Columbia Fuel Fabrication Facility (CFFF). Double Contingency Protection means that all process designs incorporate sufficient margins of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible.

Contrary to the above, on and before July 23, 2010, the licensee failed to establish Double Contingency for the filter press to protect against an inadvertent criticality. Specifically, the Integral Fuel Burnable Absorber (IFBA) filter press relied solely on the peg and hole design to prevent the introduction of additional filter plates, which could have led to an inadvertent criticality.

2. AV 70-1151/2010-202-02:10 CFR 70.61(b) states that the risk of each credible high-consequence event must be limited. Engineered controls, administrative controls, or both, shall be applied to the extent needed to reduce the likelihood of occurrence of the event so that, upon implementation of such controls, the event is highly unlikely or its consequences are less severe than those in paragraphs (b)(1)-(4) of this section.

10 CFR 70.61(e) states, in part, that each engineered or administrative control or control system necessary to comply with paragraphs (b), (c), or (d) of this section shall be designated as an item relied on for safety.

Contrary to the above, on and before July 23, 2010, the licensee failed to establish items relied on for safety to reduce the likelihood of a credible high consequence event to highly unlikely. Specifically, the licensee failed to implement items relied on for safety for the IFBA filter press to prevent an inadvertent nuclear criticality, which is a high consequence event.

3. AV 70-1151/2010-202-03: Safety Condition S-1 of SNM License No. 1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated June 27, 2007, and supplements thereto.

Section 4.1.2 of the License Application states, in part, that the ISA "is developed in accordance with methods acceptable to the CFFF management, as approved by the Handbook [titled "Baseline ISA and ISA Summary Handbook"]...Subsection 7.2 activities are specific commitments to the NRC and must be executed, as described, for each ISA."

Section 7.2.3, Accident Sequence Likelihood Scoring, states in part "For those sequences in which this conclusion (incredible) is based on inherently safe Passive Design Feature, then the passive engineered Safety Significant Controls (SSC) will be

designated as an IROFS, with an additional administrative IROFS established to provide for EH&S regulatory review of all work packages issued within the IROFS Boundary.”

Contrary to the above, on and before July 23, 2010, the licensee performed Criticality Safety Evaluations in which a criticality accident scenario was classified as incredible based on the dependence on SSCs, which were not designated as IROFS. Specifically, the licensee failed to designate the peg and hole design of the filter press as an IROFS when the conclusion for the accident scenario was determined to be incredible based on the peg and hole design feature.

4. AV 70-1151/2010-202-04: Safety Condition S-1 of SNM License No. 1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated June 27, 2007, and supplements thereto.

Section 3.4 of the License Application states, in part, that operations to assure safe, compliant activities involving nuclear material will be conducted in accordance with approved procedures.

Contrary to the above, on and before July 23, 2010, the licensee failed to establish an adequate operating procedure for the IFBA filter press.

5. AV 70-1151/2010-202-05: Safety Condition S-1 of SNM License No. 1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated June 27, 2007, and supplements thereto.

Section 3.4 of the License Application states, in part, that operations to assure safe, compliant activities involving nuclear material will be conducted in accordance with approved procedures.

Contrary to the above, on and before July 23, 2010, the licensee failed to make a change to facility equipment in accordance with procedure TA-500. Specifically, the peg holes for the failed IFBA filter press were 0.508 inches, which deviated from the system design drawing requiring that the holes be 0.500 inches in diameter, which subsequently led to the pegs not fitting properly into the peg holes.

6. AV 70-1151/2010-202-06: Safety Condition S-1 of SNM License No. 1107 requires that material be used in accordance with the statements, representations, and conditions in the license application dated June 27, 2007, and supplements thereto.

Section 3.4 of the License Application states, in part, that operations to assure safe, compliant activities involving nuclear material will be conducted in accordance with approved procedures.

Contrary to the above, on and before July 23, 2010, the licensee failed to make a change to facility equipment in accordance with procedure TA-500. Specifically, the pegs in the IFBA filter press plate were replaced without glue, which deviated from the system design drawing requiring the pegs to be glued into the peg holes with PVC glue.