



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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

May 1, 2008

EA-08-057

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

SUBJECT: NOTICE OF VIOLATION (NRC OFFICE OF INVESTIGATIONS REPORT  
NO. 2-2007-024)

Dear Mr. Alstadt:

This refers to an investigation conducted on May 9, 2007, by the U.S. Nuclear Regulatory Commission's (NRC) Office of Investigations (OI) at the Westinghouse Electric Company, located in Columbia, SC. The purpose of the investigation was to determine whether, on November 17, 2006, a conversion line operator willfully failed to comply with applicable safety procedures by disabling an alarm acknowledgment pushbutton associated with a safety significant control. The results of our review of this matter, including the identification of an apparent violation involving the disabling of the alarm acknowledgment pushbutton, were transmitted to Westinghouse Electric Company (WEC) by NRC letter dated March 6, 2008.

The NRC's letter of March 6, 2008, provided WEC the opportunity to address the apparent violation by either attending a predecisional enforcement conference or by providing a written response before we made our final enforcement decision. In its letter of April 1, 2008, WEC provided a written response to the apparent violation. WEC's response documented its acknowledgement that the violation occurred as stated, provided additional details of its internal investigation into the incident, and documented its corrective actions taken to preclude recurrence.

Based on the information developed during the investigation and the information that you provided in your written response, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the NRC's letter of March 6, 2008. The violation involved the actions of a conversion operator who disabled an alarm acknowledgment pushbutton alarm and interlock, ADUCAL-406, on the Ammonium Diuranate (ADU) calciner's Conversion Line 5. These actions are prohibited by Chemical Operating Procedure COP-811001 and license conditions. The NRC concluded that the violation was a direct result of the deliberate misconduct of a WEC conversion operator. The operator temporarily disabled the alarm pushbutton while cleaning plant equipment, and subsequently did not remember to re-enable the pushbutton.

The purpose of the alarm pushbutton and the associated interlock is to provide an audible alarm function to help maintain a plug/barrier/seal of low-enriched uranium powder in the calciner tunnel, and to prevent the formation of a small quantity of combustible air-hydrogen mixture on the exit side of the calciner tunnel. In this case, no actual consequences occurred as a result of the disabled alarm pushbutton because the uranium powder calciner and conveying system continued to operate properly with no adverse safety events occurring during the time the alarm acknowledgement button function was disabled.

The likelihood of an inadvertent ignition of the air-hydrogen mixture within the calciner tunnel is low, in part, because the normal operating temperature of the calciner is sufficient to burn off any air-hydrogen formation. The short elapsed time that the alarm was actually disabled, as well as the existence of other required safety controls, also decreased the likelihood and consequences of an inadvertent air-hydrogen mixture ignition or a potential radiological or chemical incident. The NRC notes that the alarm is also not identified as an Item Relied on for Safety (IROFS) in the licensee's Integrated Safety Analysis Summary, but instead is identified only as a safety significant control.

The NRC would normally characterize the significance of the above violation at Severity Level IV. However, the violation was a direct result of the deliberate misconduct of a conversion operator. As discussed in the NRC Enforcement Policy, deliberate violations are of particular concern to the NRC because our regulatory program is based on licensees and their employees acting with integrity. As a result, the NRC has characterized the significance of this violation at Severity Level III.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$32,500 is considered for a Severity Level III violation. Because the violation was willful, the NRC considered whether credit was warranted for *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy.

This issue was identified by a second conversion operator during the following operating shift, who promptly reported the issue to WEC management such that an internal review of the matter could be conducted. Therefore, credit is warranted for the factor of *Identification*.

Immediate corrective actions included the restoration of the alarm function by the conversion operator who identified the condition, and his reporting of the condition to WEC management such that an internal review of the circumstances could be initiated. WEC conducted interviews with operators working in areas that handled Special Nuclear Materials (SNM), held oral review board examinations for operators who work with SNM, and verified that operators clearly understood that safety rules cannot be violated. WEC management also used the interviews as an opportunity to re-emphasize that these types of violations are extremely serious, and that the consequences associated with these violations can include termination of employment. Finally, WEC took disciplinary action (eventual termination) against the conversion operator involved in the incident. Based on the above, credit is warranted for the factor of *Corrective Action*.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to propose that a civil penalty not be assessed in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of this Severity Level III violation constitutes escalated enforcement action that may subject you to increased inspection effort.

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 on the docket in this letter and in WEC's written response of April 1, 2008. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

If you disagree with this enforcement sanction you may request alternative dispute resolution (ADR) with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts outside of court using a neutral third party. The technique that the NRC has decided to employ is mediation. Additional information concerning the NRC's program is described in the enclosed brochure (NUREG/BR-0317) and can be obtained at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as an intake neutral. Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures and your response (should you choose to provide one) 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). 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/**

Victor M. McCree  
Acting Regional Administrator

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

Enclosures:

1. Notice of Violation
2. NUREG/BR-0317

cc w/encls: (See page 4)

cc w/encls:

Marc Rosser  
Manager  
Environment, Health and Safety  
Commercial Nuclear Fuel Division  
Electronic Mail Distribution

Susan Jenkins  
Section Leader  
Division of Waste Management  
Bureau of Land and Waste Management  
Electronic Mail Distribution

Distribution w/encls:

L. Reyes, OEDO  
M. Weber, NMSS  
C. Marco, OGC  
C. Carpenter, OE  
E. Julian, SECY  
B. Keeling, OCA  
Enforcement Coordinators  
RI, RIII, RIV  
E. Hayden, OPA  
G. Caputo, OI  
H. Bell, OIG  
C. Carpenter, OE  
J. Wray, OE  
P. Habighorst, NMSS  
B. Reilly, NMSS  
M. Adams, NMSS  
A. Snyder, NMSS  
G. Morrell, NMSS  
C. Casto, RII  
D. Collins, RII  
J. Shea, RII  
C. Evans, RII  
S. Sparks, RII  
G. Kuzo, RII  
D. Rich, RII  
K. Clark, RII  
R. Hannah, RII  
R. Trojanowski, RII  
C. Montgomery, RII  
OEMAIL  
PUBLIC

\*see previous concurrence

X PUBLICLY AVAILABLE     NON-PUBLICLY AVAILABLE     SENSITIVE    X NON-SENSITIVE

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

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SIGNATURE	DMC 4/24//08	CFE 4/24/08	Jw 4/24/08	PH 4/29/08		
NAME	DCOLLINS	CEVANS*				
DATE						
E-MAIL COPY?	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO	YES    NO

OFFICIAL RECORD COPY

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## NOTICE OF VIOLATION

Westinghouse Electric Company  
Columbia, SC

Docket No. 70-1151  
License No. SNM-1107  
EA-08-057

During an investigation completed by the NRC's Office of Investigations on January 7, 2008, a violation of NRC requirements occurred. In accordance with the NRC Enforcement Policy, the violation is set forth below:

Special Nuclear Materials License No. SNM-1107, Safety Condition No. S-1, authorizes the use of material in accordance with the statements, representations, and conditions in the license application, dated April 30, 1995, and supplements thereof.

Section 3.4.1 of the license application states that operations to assure safe, compliant activities involving nuclear material will be conducted in accordance with approved procedures.

Chemical Operating Procedure COP-811001, "Fitzmill", Revision 38, dated May 22, 2006, Section III, Shutdown, Step 3.0, states that operators are not to bypass the ADUCAL-406 interlock while hydrogen is flowing to the calciner.

Contrary to the above, on November 17, 2006, operations to assure safe, compliant activities involving nuclear material were not conducted in accordance with approved procedures in that a safety significant control interlock was willfully bypassed by an operator with hydrogen gas flowing to the calciner in the licensee's wet conversion process. Specifically, a piece of plastic tie-wrap was utilized to force engagement of an alarm acknowledgment pushbutton associated with the safety significant control alarm and interlock, ADUCAL-406. The forced engagement of the pushbutton effectively disabled the function of the alarm and interlock on the first discharge screw of the calciner as an active engineered control requiring operator response.

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

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 will be achieved is already adequately addressed on the docket in the cover letter to this Notice, and in your written response dated April 1, 2008. 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, EA-08-057" and send it to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S., Nuclear Regulatory Commission, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

Enclosure 1

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.

If you choose to respond, your response 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>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 1<sup>st</sup> day of May, 2008