

General Information or Other (PAR)

Event # 45465

<b>Rep Org:</b> WESTINGHOUSE ELECTRIC COMPANY		<b>Notification Date / Time:</b> 10/24/2009 12:11 (EST)	
<b>Supplier:</b> WESTINGHOUSE ELECTRIC COMPANY		<b>Event Date / Time:</b> 10/24/2009 (EDT)	
<b>Last Modification:</b> 01/14/2010			
<b>Region:</b> 1	<b>Docket #:</b>		
<b>City:</b> PITTSBURGH	<b>Agreement State:</b> Yes		
<b>County:</b>	<b>License #:</b>		
<b>State:</b> PA			
<b>NRC Notified by:</b> J. A. GRESHAM		<b>Notifications:</b> LAWRENCE DOERFLEIN	R1DO
<b>HQ Ops Officer:</b> VINCE KLCO		JAY HENSON	R2DO
<b>Emergency Class:</b> NON EMERGENCY		LAURA KOZAK	R3DO
<b>10 CFR Section:</b>		NEIL OKEEFE	R4DO
21.21	UNSPECIFIED PARAGRAPH	JOHN THORP(e-mail)	NRR
		O. TABATABAI(e-mail)	NRO

## POTENTIAL AGGRESSIVE WEARING OF ROD CLUSTER CONTROL ASSEMBLY GUIDE CARDS

"Aggressive wearing of the RCCA [Rod Cluster Control Assembly] guide card has been observed at an international plant. Such aggressive wear has not been observed in any US plants. If this issue were to remain uncorrected, it is possible for enough wear to occur during the life of the plant that the RCCAs could become unguided and may not properly insert into the core. It has not been concluded whether there is a safety hazard which would result from this deviation."

\*\*\* UPDATE FROM GRESHAM TO CHUCK TEAL VIA FAX AT 1213 EST ON 1/14/2010 \*\*\*

"Aggressive wearing of the Rod Cluster Control Assembly (RCCA) guide card has been observed at an international plant. Such aggressive wear has not been observed in any other plants. If this issue were to remain uncorrected, it was postulated that enough wear could occur during the life of the plant that the RCCAs could become unguided and may not properly insert into the core."

"With the exception of the one international plant in which abnormal excessive wear has been found, the conclusion from the analysis of the collection of wear data and the analysis of rodlet insertion with worn guide cards is that there is no concern for safe operation of any plant regarding guide tube wear for the 40-year design life. The engineering analysis supports this conclusion regardless of the type of RCCA guide tube or the RCCA rodlet material currently in use. For the international plant with the excessive wear, years of continued safe operation is available, and a justification for continued operation has been provided to the utility. Directives in Materials Reliability Program (MRP 227) will necessitate guide tube inspections as part of life extension licensing."

"Concerning AP 1000, a guide tube wear analysis has been performed. The analysis demonstrates operability for the 60-year design life for the shutdown control rods."

IERO  
NRR

General Information or Other (PAR)

Event # 45465

"Based on the above evaluation results, it has been determined that this issue does not represent a substantial safety hazard pursuant to the requirements delineated in 10CFR Part 21."

\*\*\*\*\*



**Westinghouse**

Westinghouse Electric Company  
Nuclear Services  
P.O. Box 355  
Pittsburgh, Pennsylvania 15230-0355  
USA

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Direct tel: 412-374-4643  
Direct fax: 412-374-3846  
e-mail: [grshaja@westinghouse.com](mailto:grshaja@westinghouse.com)

Our ref: LTR-NRC-10-2

January 14, 2010

**Subject: Closure of Westinghouse Interim Report Log No. 2009-23**

**Reference:** 1) Letter from J. A. Gresham to U.S. NRC Document Control Desk, LTR-NRC-09-52,  
"Interim Report of the Evaluation of a Deviation Pursuant to 10CFR21.21(a)(2)," dated October 24, 2009

Gentlemen:

Westinghouse submitted an Interim Report (Reference 1), pursuant to the requirements of 10CFR Part 21, regarding an evaluation of reportability which could not be completed within 60 days from the discovery of the deviation or failure to comply. The issue being evaluated by Westinghouse concerns Potential Aggressive Wearing of Rod Cluster Control Assembly Guide Cards. It was designated Interim Report Log No. 2009-23.

The purpose of this letter is to close Interim Report Log No. 2009-23.

If you have any questions regarding this matter, please contact me at (412) 374-4643.

Regards,

James A. Gresham, Manager  
Regulatory Compliance and Plant Licensing

Attachment

Interim Report No. 2009-23 (Closeout)

**SUBJECT:**

Closure of Interim Report Log No. 2009-23 regarding an evaluation of a Deviation or Failure to Comply Pursuant to 10CFR21.21(a)(2)

**TITLE:**

Potential Aggressive Wearing of Rod Cluster Control Assembly Guide Cards

**BASIC COMPONENT SUPPLIED BY:**

Westinghouse Electric Company

**NATURE OF DEVIATION:**

Aggressive wearing of the Rod Cluster Control Assembly (RCCA) guide card has been observed at an international plant. Such aggressive wear has not been observed in any other plants. If this issue were to remain uncorrected, it was postulated that enough wear could occur during the life of the plant that the RCCAs could become unguided and may not properly insert into the core.

**EVALUATION:**

With the exception of the one international plant in which abnormal excessive wear has been found, the conclusion from the analysis of the collection of wear data and the analysis of rodlet insertion with worn guide cards is that there is no concern for safe operation of any plant regarding guide tube wear for the 40-year design life. The engineering analysis supports this conclusion regardless of the type of RCCA guide tube or the RCCA rodlet material currently in use. For the international plant with the excessive wear, years of continued safe operation is available, and a justification for continued operation has been provided to the utility. Directives in Materials Reliability Program (MRP 227) will necessitate guide tube inspections as part of life extension licensing.

Concerning AP1000, a guide tube wear analysis has been performed. The analysis demonstrates operability for the 60-year design life for the shutdown control rods.

Based on the above evaluation results, it has been determined that this issue does not represent a substantial safety hazard pursuant to the requirements delineated in 10CFR Part 21.