

November 15, 2007

Mr. J. A. Gresham, Manager  
Regulatory Compliance and Plant Licensing  
Westinghouse Electric Company, LLC  
P.O. Box 355  
Pittsburgh, PA 15230-0355

SUBJECT: LTR-NRC-07-52, REGARDING "WESTINGHOUSE BREAKAWAY OXIDATION TESTING/BEHAVIOR (NON-PROPRIETARY)," DATED SEPTEMBER 24, 2007

Dear Mr. Gresham:

Thank you for your letter, dated September 24, 2007, in which you highlighted the differences between results of tests performed by Westinghouse and those performed by a contractor to the U.S. Nuclear Regulatory Commission (NRC) at Argonne National Laboratory (ANL). Specifically, the results in question are measurements of hydrogen concentrations on cladding specimens that have been subjected to loss-of-coolant-accident conditions under which breakaway oxidation may occur. However, the attachment to your letter did not report the hydrogen concentrations in most of the specimens tested in Pittsburgh; those results may not yet be available.

The NRC staff agrees that it is desirable to understand these differences and make any corrections that may be appropriate. However, because the Columbia Manufacturing Facility performed only a limited number of tests and only a limited temperature range, we suggest waiting for the remaining hydrogen concentration measurements from the much larger matrix of tests performed at the Pittsburgh Science and Technology Center. If those measurements are consistent with the Columbia results, further investigation would be warranted to determine why the Westinghouse results differ from those obtained at ANL.

Toward that end, in August 2007, Robert J. Comstock of your Pittsburgh Science and Technology Center and Michael C. Billone (our principal investigator at ANL), began discussions regarding their respective testing methods to determine the possible causes of the differing results. You should note that neither Westinghouse staff nor any of our other program partners raised any questions (during a recent program review meeting at ANL) regarding the measurement

J. Gresham

-2-

techniques that ANL used for these tests. Nonetheless, we look forward to reviewing the hydrogen concentration measurements from the Pittsburgh test specimens and working with you to resolve this issue.

Sincerely,

***/RA/ Sher Bahadur for***

Farouk Eltawila, Director  
Division of Systems Analysis  
Office of Nuclear Regulatory Research

cc: D. Colburn, Westinghouse  
M. Billone, ANL

J. Gresham

-2-

techniques that ANL used for these tests. Nonetheless, we look forward to reviewing the hydrogen concentration measurements from the Pittsburgh test specimens and working with you to resolve this issue.

Sincerely,

Farouk Eltawila, Director  
Division of Systems Analysis  
Office of Nuclear Regulatory Research

cc: D. Colburn, Westinghouse  
M. Billone, ANL

Distribution:  
DSA R/F

Package: ML073100047  
Incoming: ML072700103

DOCUMENT NAME: G:\DRASP\NRCA\Scott\W-Breakaway3-3.doc

OAR in ADAMS? (Y or N) Y ADAMS ACCESSION NO: **ML073030010** TEMPLATE NO. RES-006  
PUBLICLY AVAILABLE? (Y or N) Y DATE OF RELEASE TO PUBLIC: 11/23/2007 SENSITIVE? N  
To receive a copy of this document, indicate in the box: "C" = Copy w/o enclosures "E" = Copy w/enclosures "N" = No copy

OFFICE	F&STB	C: F&STB	Tech Editor	N	NRR
NAME	RMeyer:HScott:mb	RLee	PGarrity		PClifford
DATE	11/8/07	11/8/07	10/31/07		11/8/07
OFFICE	NRR	C:NRR	D:DSA		
NAME	AMendiola	SRosenberg	FEltawila - Sher for		
DATE	11/9/07	11/14/07	11/15/07		

OFFICIAL RECORD COPY