

October 22, 2003

MEMORANDUM TO: Stephen Dembek, Chief, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

FROM: Brian Benney, Project Manager, Section 2 **/RA/**  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MEETING HELD ON SEPTEMBER 26, 2003, WITH  
WESTINGHOUSE (TAC NO. MB1365)

Representatives from Westinghouse Electric Company LLC (Westinghouse), the Advanced Measurement Analysis Group, Inc. (AMAG) and Exelon met in a partially closed meeting with members of the staff to discuss the *CROSSFLOW* ultrasonic flow measurement system signal contamination recently identified at both Byron and Braidwood Units 1 and 2. The purpose of the meeting was to determine the nature of signal contamination, how it manifests itself, its consequence(s), implications for generic applicability for other *CROSSFLOW* users and any remedial actions being considered by Westinghouse/AMAG to eliminate the effect of signal contamination in the future.

The staff's focus was on understanding the signal contamination issue; how it was identified at Byron and Braidwood; how it could be assured that other *CROSSFLOW* users were not currently affected; and how the potential for signal contamination could be minimized in the future. Technical Bulletin TB-03-6, "*CROSSFLOW* Ultrasonic Flow Measurement System Signal Issues," issued by Westinghouse on September 5, 2003, provides a summary of the overall issue.

After concentrated discussion, Westinghouse was left with a number of actions to provide the staff with additional information. The staff requested the information to verify the integrity of information already contained in previously submitted topical reports and to establish the guidelines that *CROSSFLOW* users need to operate their systems to minimize the potential for signal contamination in the future. The staff also indicated that future applications for Appendix K power uprates using *CROSSFLOW* would receive greater scrutiny with respect to the signal contamination issue and would likely seek assurance that at the time of installation signal contamination was not present. Such assurance will likely be in the form of a frequency spectrum analysis at each *CROSSFLOW* installation demonstrating that signal contamination does not exist at the time of installation and setting of venturi correction factors ( $C_f$ ).

Following the meeting, the staff expressed its appreciation to Westinghouse for the presentation. An attendance list is provided in the attachment. The non-proprietary slides used during the meeting are available in ADAMS under accession number ML032720961.

Project No. 700

Attachment: Meeting Attendees

cc w/att:

Mr. Gordon Bischoff, Manager  
Owners Group Program Management Office  
Westinghouse Electric Company  
P.O. Box 355  
Pittsburgh, PA 15230-0355

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

Following the meeting, the staff expressed its appreciation to Westinghouse for the presentation. An attendance list is provided in the attachment. The non-proprietary slides used during the meeting are available in ADAMS under accession number ML032720961.

Project No. 700

Attachment: Meeting Attendees

cc w/att:

Mr. Gordon Bischoff, Manager  
Owners Group Program Management Office  
Westinghouse Electric Company  
P.O. Box 355  
Pittsburgh, PA 15230-0355

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

DISTRIBUTION:

PUBLIC	SAlexander
PDIV-2 Reading	IAhmed
RidsNrrDlpm (TMarsh/ELeeds)	PREbstock
RidsNrrDlpmLpdiv (HBerkow)	EMarinos
RidsNrrPMBBenney	SArndt
RidsNrrLAEPeyton	GDick
RidsOgcRp	MChawla
RidsAcrcAcnwMailCenter	DPickett
LRaghavan	
MShuaibi	

**Package No.: ML032960691**

**Meeting Notice No.: ML032590672**

**ADAMS Accession No.: ML032960665**

**NRC-001**

OFFICE	PDIV-2/PM	PDIV-2/LA	EEIB/SC	PDIV-2/SC
NAME	BBenney	EPeyton	EMarinos	SDembek
DATE	10/14/03	10/14/03	10/22/03	10/22/03

DOCUMENT NAME: G:\PDIV-2\Westinghouse (Vendor)\MTG summary CROSSFLOW.wpd  
OFFICIAL RECORD COPY

MEETING ATTENDEES

MEETING WITH WESTINGHOUSE ELECTRIC COMPANY

SEPTEMBER 26, 2003

**WESTINGHOUSE**

H. Sepp  
R. Doney  
C. Brinkman  
C. Molnar

**OTHER**

V. Askari (AMAG)  
A. Lopez (AMAG)  
K. Jury (Exelon)  
B. Kouba (Exelon)  
J. Drowley (Exelon)  
K. Ramsden (Exelon)  
H. Estrada (Caldon)  
G. Twachtman (McGraw Hill)

**NRC**

B. Benney  
E. Leeds  
S. Dembek  
D. Pickett  
G. Dick  
M. Chawla  
M. Shuaibi  
S. Alexander  
I. Ahmed  
P. Rebstock  
E. Marinos  
S. Arndt  
L. Raghavan