

January 24, 2002

MEMORANDUM TO: Stuart A. Richards, Director  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

FROM: Drew G. Holland, Project Manager, Section 2  
Project Directorate IV /RA/  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF DECEMBER 12, 2001, MEETING WITH  
WESTINGHOUSE OWNERS GROUP (WOG) (WOG/NRC SENIOR  
MANAGEMENT MEETING)

On December 12, 2001, the NRC staff met with representatives of the WOG at the WOG's request. The subject of the meeting was to discuss a variety of issues of interest to both the WOG and NRC senior management staffs. Mr. Collins, Director of the Office of Nuclear Reactor Regulation (NRR), provided opening remarks to the effect that both organizations have benefited by these types of meetings in that candid feedback and interaction are enjoyed by both organizations. Mr. Collins also stated that the events of September 11, 2001, have had a major effect on reducing available NRC resources in accommodating the agency's normal workload. Mr. Barron of the WOG, provided his opening remarks that reaffirmed Mr. Collins' comments. He also noted that the backlog of open issues has gone down as a result of WOG/NRC meetings. As part of the introduction, it was announced that Mr. Ted Schiffley of Exelon had been appointed as the new WOG Vice Chairman. In addition, Mr. Gordon Bischoff of Westinghouse will lead the new combined WOG and Combustion Engineering Owners Group (CEOG) Program Management Office. The WOG's meeting handouts and the action items from the meeting are available in ADAMS under accession number ML020170087.

The detailed WOG presentation was then commenced by Mr. Bryan. The issues and their content follow:

Large-Break-Loss-of-Coolant Accident (LBLOCA) Redefinition - This continues to be a top priority with the WOG for risk-based regulatory changes. The WOG is disappointed that SECY 01-0133 did not reflect information that industry provided regarding probabilistic fracture mechanics (PFM) to develop initiating loss-of-coolant accident (LOCA) event frequencies. The WOG requested that the NRC review PFM items in Attachment 2, Appendix A to SECY 01-0133 and identify those that are not addressed by risk-informed inservice inspection (ISI) work. The petition for rulemaking has been drafted and is being reviewed by the WOG.

Risk-Informed Regulation, Part 50, Option 2 - The WOG was pleased with the NRC's willingness to consider industry input at the November 7, 2001, workshop, particularly the development of a closer relationship between 10 CFR 50.69 and other regulations and

guidance. In addition, consideration is being given to nuclear industrial practices rather than prescriptive requirements. The WOG believes that the success of Option 2 is based on treating low safety significant systems, structures and components (SSC) consistent with their level of importance to safety.

Reactor Vessel Head Penetration (RVHP) Cracking - The WOG supports coordination of generic industry activities in response to this issue. NEI and the Materials Reliability Project (MRP) A600 Issues Task Group (ITG) have taken the lead in developing and implementing the industry plan for response to Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles." They are working through Westinghouse to supply data to the MRP. The WOG will support specific tasks to assist WOG members as required.

Incomplete Rod Insertion (IRI) - The WOG IRI high burnup threshold program is completed. Drag data has been collected and analyzed for an additional 104 fuel assemblies (FAs). Topical Report WCAP-15712, "IRI High Burnup Threshold Assessment Program," has been completed and will be provided to the NRC for information only. The conclusions from the program are that: (1) additional FA drag data statistically fits with previous FA drag data, (2) FAs with 1.1" bottom nozzle rod group (BNRG) tend to have higher total drag, (3) FAs with ZIRLO guide thimbles and a BNRG of 0.465" or 0.085" (which is applicable for the majority of products in use) have significantly less total drag.

IRI Conclusions - Statistical analysis confirms that WOG guidelines are conservative and should not be changed. The implementation of fuel design features such as intermediate flow mixer (IFM) grids, thicker thimble tubes or smaller BNRG, reduces the potential for IRI. This program is complete and no additional testing or analysis is required. The IRI issue with respect to fuel assembly/thimble tube bowing is closed.

Farley 1 Incomplete Rod Insertion in the Dashpot (IRID) - Incomplete rod insertion was experienced during discharge of old rod control cluster assemblies (RCCAs) in the spent fuel pool (SFP) and during startup testing at the beginning of Cycle 18. The cause for this condition was swelling of the absorber in RCCA rodlet tips. The RCCAs involved had seen considerable service [23 calendar years; 17 cycles; 18.8 effective full power years (EFPYs)]. This condition involves an old design that uses Ag-In-Cd absorber. The condition of the associated fuel assemblies appears to not have worsened. IRID is being treated within the Westinghouse corrective action program. The associated root cause analysis and extent considerations are ongoing. Mr. Collins requested that the issue be considered for 10 CFR Part 21 applicability and for effects with different fuel types, such as MOX.

WOG/NRC Metrics - The WOG has established a metric to track WCAP safety evaluation (SE) cost and schedule. The NRC will provide estimated SE dates and NRC review costs. The focus is on improving WOG performance, improving the quality of WCAPs and establishing realistic costs and schedules. The WCAP/SE metric will be reviewed by the WOG on a periodic basis and presented at the Senior Management Meetings. The WOG asked for NRC feedback and support. Mr. Collins stated that we will continue to utilize the metrics.

Documents Submitted for NRC Review - The following WCAPs were briefly discussed:

1. Addendum to WOG application of risk-informed (RI) methods to the ISI Topical Report to Address Changes to Augmented Inspection Requirements (WCAP-14572, Rev. 1-NP-A, Addendum 1);
2. RT and ESF Logic and Reactor Trip Allowed Outage Time (AOTs) and Surveillance Test Intervals (STIs) (WCAP-15376);
3. Limited Scope High Burnup Lead Test Assemblies (LTAs) (WCAP-15604);
4. WOG 2000 Reactor Coolant Pump (RCP) Seal Leakage Model for Westinghouse PWRs (WCAP-15603);
5. License Renewal Issues Associated With Under-Clad Cracking (WCAP-15338);
6. RCP Motor Flywheel Inspection Extension (WCAP-14535); and
7. RI AC Power Systems AOT Extensions (WCAP-15622)

In this area, the WOG management stated that nothing is overdue from the staff.

Reports to be Submitted:

1. IRI High Burnup Threshold Assessment (WCAP-15712), 4<sup>th</sup> Q 01;
2. R-I Containment Isolation Valve AOT Extensions, 1st Q 02. This review will be performed in conjunction with the risk-informed technical specification review;
3. Risk-Informed Anticipated Transient Without Scram, 1st Q 02; and
4. Cold Overpressure Mitigation System (COMS) Setpoints and RCS Heatup/Cooldown Curves Methodology (WCAP-14040 Rev. 3), 1st Q 02.

NRC Items:

1. Ellen Poteat of the Office of the Chief Financial Officer discussed current practices in the fee waiver process. She stated that decisions on fee waivers would now be made at the outset of the project. In addition, it was requested that the WOG make their request for a fee waiver in the body of the transmittal letter of documents to be reviewed.
2. The NRC processes roughly 1500 license amendment requests (LARs) per year, but only slightly more than half are projected by licensees when requested by the staff.
3. It was mentioned that small power uprates can usually be processed by the staff within several months and uprates of greater than 5 percent will take about one year.

Stuart A. Richards

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Mr. Collins and Mr. Barron considered the meeting to be very successful and the meeting was adjourned.

Project No. 694

Attachment: Meeting Attendees

cc w/att:

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

Mr. Gordon Bischoff, Project Manager  
Westinghouse Owners Group  
Westinghouse Electric Company  
Mail Stop ECE 5-16  
P.O. Box 355  
Pittsburgh, PA 15230-0355

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MEETING WITH WESTINGHOUSE OWNERS GROUP

MEETING ATTENDEES

SENIOR MANAGEMENT MEETING

DECEMBER 12, 2001

**NRC**

S. Collins  
B. Sheron  
G. Holahan  
S. Dembek  
F. Eltawila  
M. Drouin  
E. Poteat  
J. Wermiel  
C. Carpenter  
C. Fairbanks  
M. Marshall  
M. Switzer  
C. Moyer  
E. Hackett  
N. Chokshi  
S. Magruder  
D. Holland

**WOG**

Brew Barron  
Bob Bryan  
Gordon Bischoff  
Richard Muench  
Ted Schiffley  
Hak-Soo Kim  
Gene Eckholt  
Tim Hermann  
Mo Dinger  
Sam Binger  
Rick Etling

**WESTINGHOUSE**

C. Brinkman

**US SCIENTECH**

D. Raleigh