

WOG-00-200

September 29, 2000

To: Westinghouse Owners Group Primary Representatives (1L, 1A, 1E)
WOG Systems and Equipment Engineering Subcommittee Representatives (1L, 1A, 1E)
WOG Risk Based Technology Working Group Representatives (1L, 1A, 1E)

Subject: Westinghouse Owners Group
Summary of WOG/NRC Meeting to Discuss RCP Scal Leakage Consensus Model
for Use in PRA: September 20, 2000 (MUHP 6074)

Attached is a summary of the WOG/NRC meeting on September 20, 2000 to address the concern regarding multiple RCP Scal Leakage Models in use across the WOG fleet and to propose a consensus model acceptable to both NRC and WOG. You can direct your questions regarding this information to myself at 412-374-5673.

Regards,

Signed Original on File in WOG Project Office

Paul Pyle
Project Engineer
Westinghouse Owners Group

attachment / enclosure

cc: A.P. Drake, WEC E5-16 (1L, 1A, 1E)
Steering Committee (1L, 1A, 1E)

Attachment 1

Meeting Summary
WOG/NRC Meeting to Discuss RCP Seal Leakage Consensus Model for Use in PRA
September 20, 2000

Attachment 2 - Attendance List

Attachment 3 - Enclosure List

Meeting Summary

The WOG requested this meeting with the NRC staff to discuss two issues:

- Concerns relative to multiple RCP Seal Leakage Models currently in use across the WOG fleet, and
- Propose a consensus leakage model that would be acceptable to both WOG and NRC for use in Probabilistic Risk Analysis (PRA).

Steve Bloom, NRC Project Engineer for the WOG, opened the meeting by welcoming everyone. Around-the-room introductions were then conducted. At the conclusion of all introductions, Steve turned the meeting over to Mo Dingler, Chairman, Systems & Equipment Engineering Subcommittee. Mo reviewed the meeting agenda and defined the purpose of the meeting. He then introduced Ken Kiper, Chairman, Risk Based Technology Working Group.

RCP Seal Leakage Consensus Model for Westinghouse PWRs
(Enclosure 1)

Ken Kiper, NAESCO

Ken began his presentation by describing the boundaries of the RCP Seal Leakage Model defining what was included and what was excluded. He continued by introducing *WOG2000*, a RCP Seal Leakage Model based on the Brookhaven National Lab Report W6211-08/99, with three modifications:

- **Popping and Binding** – Probability reduced by a factor of 2 for seals with High Temperature O-rings
- **O-ring Failure** – Probability reduced by a factor of 2 for seals with old O-rings
- **Starting Time** – of time-independent seal face failures is postulated to be 30 minutes after the loss of RCP seal Cooling

Ken continued his presentation by justifying these modifications and then presented the conclusions:

- WOG2000 is consistent with the BNL Report
Three modifications/clarifications
- If NRC agrees in principle with *WOG2000*
WOG will prepare a WCAP on *WOG 2000* methodology by 12/31/00 and submit to NRC with a request for a SER

Following Ken's presentation the group discussed *WOG2000*. Jared Wermiel, Chief, Reactor Systems Branch, was one of the first to speak and stated "Sounds like a great idea." He continued by cautioning that the *WOG2000* WCAP should be as detailed as possible relative to the 3 modifications/clarifications. NRC committed to use the resources of NRR as well as research to review the WCAP submitted for a SER and additionally committed to review the BNL Report to ensure that no "artistic license" had been taken with Rhodes.

The discussions concluded with a statement "We are on the right track." NRC accepted and action to notify WOG by 10/31/00 if they identify any inconsistencies/problems with the BNL Report.

The following actions were identified at the conclusion of the meeting:

ACTION: Contact Steve Bloom, NRC, to ensure NRC has no issues with the BNL Report which might affect the *WOG2000* WCAP – Paul Pyle

ACTION: Confirm that Westinghouse no longer manufactures the "old" style RCP Seal O-Rings – Paul Pyle

The meeting adjourned at approximately 10:25 AM.

Attachment 2
Attendance List

Name	Organization	Phone Number
Karl Jacobs	NYPA	914-681-6262
Steve Bloom	NRC	301-415-1313
Chu-yu Liang	NRC/NRR	301-415-2878
David McCoy	Southern Nuclear	205-992-5686
Selim Sancaktar	Westinghouse	412-374-5983
Paul Pyle	WOG Project Office	412-374-5673
Ken Kiper	NAESCO	603-773-7052
Arthur Buslik	NRC/RES/PRAB	301-415-6184
Jared Wermiel	NRR/SRXB	301-414-2895
Jerry Jackson	RES/DET/ERAB	301-415-6656
Dave Lounsbury	PSE&G/WOG	609-339-3906
Maurice Dingler	WCNOC/WOG	316-364-4127

Attachment 3
List of Enclosures

File	Title
LeakModel.ppt	RCP Seal Leakage Consensus Model for Westinghouse PWRs