



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 14, 1999

MEMORANDUM TO: Cynthia A. Carpenter, Chief
Generic Issues, Environmental, Financial
and Rulemaking Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

FROM: Peter C. Wen, Project Manager *Peter C. Wen*
Generic Issues, Environmental, Financial
and Rulemaking Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF APRIL 29, 1999, SEMIANNUAL NRR/WESTINGHOUSE
OWNERS GROUP SENIOR MANAGEMENT MEETING

The subject meeting was held at the NRC offices in Rockville, Maryland, on April 29, 1999, between representatives of the Westinghouse Owners Group (WOG) and the Office of Nuclear Reactor Regulation (NRR) staff. The purpose of the semiannual senior management meeting (SMM) is to encourage communication between NRR management and the WOG, discuss emerging issues and concerns, and give the status of the important activities of NRR and the WOG. Attachment 1 is a list of attendees, and Attachment 2 contains the WOG presentation material.

I. INTRODUCTION

Samuel Collins, Director of NRR, gave the opening remarks, stressing the importance of the SMM between the WOG and NRC. He highlighted several current issues being worked on by the staff, including the Millstone 2 restart, the Clinton restart, the D.C. Cook restart, the Watts Bar Operational Safeguard Response Evaluation activity, the Callaway electro-sleeving, the new oversight process, decommissioning activities, the NRR licensing backlog, the risk-informed scope of assessment for the maintenance rule, 10 CFR 2.206 on the disposition of fuel leaks, 10 CFR 50.72 and 50.73 rulemaking, and the status of the final rule for 10 CFR 50.59. He also briefly discussed the recent NRR reorganization.

II. WOG PRESENTATIONS

Although the WOG works on a large number of issues at any one time, the WOG specifically addressed nine topics at the SMM: the top nozzle spring clamp screw issue, the redefinition of the large-break loss-of-coolant accident (LB LOCA) licensing basis, the status of the baffle

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barrel bolting (BBB) program, the risk-informed anticipated transient without scram (ATWS) model, containment sump issues, core damage assessment guidance (CDAG) and post-accident sampling system (PASS) elimination, risk-informed technical specifications (RI-TS), the motor-operated valve (MOV) program, and probabilistic safety assessment (PSA) certification. These issues are discussed briefly herein.

Top Nozzle Spring Clamp Screw Issue: At the V.C. Summer plant on April 13, 1999, while removing fuel assemblies from the reactor core, the licensee noted that a fuel assembly was not properly latched. A video camera inspection revealed an approximate 1/8- inch gap between the hold-down spring block assembly and the top nozzle. The problem assembly was from a batch of fuel that had completed two operating cycles. The WOG presented a chronological status of this event and will supply a more detailed briefing at a later Westinghouse fuel performance meeting with the staff. At the present time, the WOG believes that no operational safety issues resulted from this event.

Redefinition of LB LOCA Licensing Basis: The WOG has undertaken a program in response to Commissioner Diaz' request to redefine the LB LOCA licensing basis by eliminating it as a consideration on the basis of risk perspectives from probabilistic risk assessments/individual plant examinations (PRAs/IPEs) that show the LB LOCA is not a significant risk contributor. The WOG believes significant cost savings can be obtained without compromising safety by revising the plant licensing bases. The WOG effort began recently and will continue into 1999, and interactions with the staff will begin sometime in October 1999.

The staff commented that this effort should be performed with a risk-informed perspective, and that the WOG should persuade the industry through the Nuclear Energy Institute (NEI) to support this effort.

Status of the Baffle Barrel Bolting Program: The WOG discussed the inspections and replacement activities at the Farley, Point Beach, and Ginna facilities. WOG activities have become integrated as one aspect of a broader industry effort, the PWR Materials Reliability Project. The baffle bolt activities include hot cell evaluations of baffle bolts removed from the plants. The WOG concluded that the inspection results to date confirm its previous conclusion that baffle bolt cracking is an aging management issue and not an immediate safety concern.

The staff acknowledged the adequacy of WOG activity on this issue. The staff requested the WOG to share the hot cell result when it becomes available.

Risk-Informed ATWS Model: The WOG wants requirements for reload designs to be based less on the moderator temperature coefficient and more on risk models. A meeting between the staff and the WOG was held on December 17, 1998, to discuss this issue. In response to that meeting, the WOG is evaluating the need to enhance certain areas of the program, especially (1) consequence assessment if the reactor coolant system (RCS) pressure exceeds 3,200 psi and (2) detailed assessment of large early release frequency (LERF). The WOG questioned the need to perform detailed LERF assessments for events with very small changes in core damage frequency (CDF).

The staff commented that guidance has been provided in Regulatory Guide 1.174 and that if the Δ CDF is sufficiently below the Δ LERF criterion, an explicit assessment of conditional LERF need not be performed.

Containment Sump Issues: The concern here is the generation of debris after the LOCA, which has a potential of clogging the containment sump screen. The WOG discussed the position of the PWR Owners Groups (PWR OGs) on the use of leak before break (LBB) on this issue. The WOG believes that by using LBB, the General Design Criterion (GDC) 4 would allow it to exclude dynamic effects associated with postulated pipe ruptures in evaluating the debris generation. In a previous meeting held on December 15, 1998, the staff did not endorse this interpretation by the PWR OGs, and stated that the issue will be explored further as part of GSI-191.

The WOG is actively participating with NRC to address this issue. It has supported phenomena identification and ranking table (PIRT) panels on both the sump blockage and the coatings issues by providing people to serve on the panels. The WOG also attended NRC public meetings on the sump blockage and coatings issues.

The staff acknowledged the WOG's involvement in this issue and would further like to see a volunteer for the WOG Reference Plants in support of NRC research on this topic.

Core Damage Assessment Guidance and PASS Elimination: The requirement for a PASS in operating reactors was introduced after the TMI accident. The purpose of the PASS was to provide the operators with information on the degree of core degradation, radioactivity release, and the general condition of the plant. The PASS was designed by various manufacturers for different licensees, but all designs had to meet the NRC requirements specified in NUREG-0737, "Clarification of TMI Action Plan Requirements." In a letter to NRC dated October 27, 1998, the WOG submitted WCAP-14986, Revision 1, "WOG Post-Accident Sampling System Requirements: A Technical Basis," for the staff's review. The WOG is hoping that some of PASS requirements can be eliminated on the basis of the analyses presented in the WCAP.

The current (1984 vintage) WOG CDAG guidance relies heavily on PASS capabilities for core damage assessment. The WOG believes that since insight has been gained in the CDA technology over the years since the development of the 1984 vintage guidance, it is time to revise the CDA methodology. The new guidance will rely on two primary indicators for assessing the type and degree of core damage: the core exit thermocouples and the containment high-range radiation monitor. Thus, CDA will not need PASS input.

Both topical reports were being reviewed by the staff at the time of this meeting.

Risk-Informed Technical Specifications: A joint NRC/ industry effort to develop a set of fully RI-TS is continuing. The WOG is supporting the industry and NRC RI-TS initiatives and will be submitting several RI-TS-related topical reports for the staff's review. The staff indicated that it preferred that submittals be sent in one at a time because this practice will more evenly distribute the staff's workload.

MOV Program: The Joint Owners Group (JOG) program was established by industry in response to Generic Letter 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves." The WOG is one of active members of the JOG. The JOG holds a semiannual meeting with the staff to appraise the status of JOG activities. The most recent meeting was held on April 14, 1999.

The staff commented that the approach taken by the JOG/WOG on the MOV issue serves as a good example of industry and the staff working together to resolve a safety issue of interest to both.

PSA Certification: The WOG has begun a PSA certification program to perform peer review of licensees' PRAs so that they can be used in risk-informed regulation. The intent of this certification is to reduce, as much as possible, the need for staff review of PRAs. The WOG effort is very similar to the Boiling Water Reactor Owners Group (BWROG) effort, which the staff has previously examined.

The staff commented that there is a disconnect between the BWROG, ASME and the PWR OGs on this issue. NEI has recently been involved in modifying the ASME standard to ensure one process.

III. REVIEW of WOG SUBMITTALS to NRC

The current and future planned lists of WOG submittals to NRC were reviewed. The NRR staff has made significant progress in eliminating the backlog. Since the previous SMM meeting on October 27, 1998, the staff has issued six (6) SERs. A brief discussion was held on the break opening time topical report, as follows:

Break Opening Time: The WOG requested the NRC's approval of WCAP-14748, "Justification for Increasing Break Opening Times in Westinghouse PWRs," in January 1997 for generic application. The staff's approval of the WCAP was limited to the BBB program only. The staff stated in its October 1998 safety evaluation that future applications to other issues outside the BBB program will have to be reviewed on a case-by-case basis.

In a letter to NRC dated December 10, 1998, the WOG requested that the review of WCAP-14748 be continued for generic application (so that it can be applied to other items in addition to the Baffle Barrel Bolting program). The staff will further discuss the schedule and the review scope with the WOG in a conference call.

IV. NRC ITEMS

The staff gave a brief update on the status of the reactor coolant pump seal issue (Generic Safety Issue [GSI]-23). The Office of Nuclear Regulatory Research (RES) is responsible for the GSI process. There are issues associated with obtaining proprietary seal models and the corresponding costs. The staff appealed to the WOG to help resolve GSI-23. The Reactor Systems Branch is the NRR contact for this topic, and a meeting will be set up with PWR OGs to further discuss these issues.

V. CLOSING COMMENTS

In the closing comments, Brian Sheron, Associate Director of NRR, described some of the issues that need to be worked on together by the industry groups. He gave the following examples:

- Expect the staff to ask risk-related questions even if the licensee's submittal is non-risk informed. This happened when Callaway submitted a deterministic steam generator tube sleeving TS change request for the staff's review. Because of the severe accident concern related to the steam generator, the staff asked risk-related questions. The staff is drafting a paper to present its position on this issue to the Commission.
- The staff would like to engage the industry through DSI 13, "Voluntary Industry Initiatives," in lieu of the generic letter process. A process for determining the threshold for these activities and an approach for confirming licensing actions are needed.
- The staff encourages utilities to reach out to their communities and make them aware of the Y2K readiness of the utilities.

Finally, a senior WOG representative commented that the WOG has seen very positive changes in NRC staff practices in recent months. He observed that the responses from the staff are more prompt and the staff reviews of the WOG WCAPs is in a more timely manner.

Project No. 694

Attachments: As stated

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WOG/NRR SENIOR MANAGEMENT MEETING
LIST OF ATTENDEES
APRIL 29, 1999

<u>Name</u>	<u>Organization</u>
Sam Collins	NRR
Brian Sheron	NRR
Dave Matthews	NRR/DRIP
Frank Gillespie	NRR/DIPM
Dick Wessman	NRR/DE
Tim Collins	NRR/DSSA
Rich Barrett	NRR/DSSA/SPSB
Jerry Wermiel	NRR/DSSA/SRXB
Ralph Caruso	NRR/DSSA/SRXB
George Hubbard	NRR/DSSA/SPLB
Richard Lobel	NRR/DSSA/SPLB
Jim O'Brien	NRR/DIPM/HOLB
Peter Wen	NRR/DRIP/RGEB
Brew Barron	Duke Energy
Lou Liberatori	Consolidated Edison
Larry Walsh	Northeast Utilities
Roger Newton	WEPCo
Bob Bryan	TVA
Wayne Harrison	South Texas Project
Karl Jacobs	New York Power Authority
Tim Herrmann	AmerenUE
David Lounsbury	PSE&G
Hank Sepp	Westinghouse
Jack Bastin	Westinghouse
Andrew Drake	Westinghouse/WOG Project Office
Sam Binger	Westinghouse/WOG Project Office
Leslie Collins	ABB-CE

WESTINGHOUSE OWNERS GROUP

WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

I. INTRODUCTION

- Meeting Purpose
 - WOG/NRC Information Meetings Implemented in 1992
 - Conducted on a Biannual Basis
 - Last Meeting October 27, 1998
 - Interface Meetings
 - Maintain & enhance communication channels
 - Allow for candid discussion of open issues / concerns
 - Provide major program activity update
 - Review NRC status of WOG submittals
 - Solicit NRC input to WOG program planning & prioritization process

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

I. INTRODUCTION - continued

- Response to 10/27/98 Meeting Action Items
 - 12/98 NRC / WOG Meeting on RI ATWS Model
 - 12/98 NRC / NEI / PWR OG Meeting on Sump Performance & Debris Generation
 - 12/10/98 BOT WCAP Resubmitted for generic approval
 - 3/99 BBB Program Status Meeting Held / Inspection Results Provided
 - Cost Benefit Analysis for PASS Elimination Provided by Wolf Creek
 - Input for Draft Rule on Reactivity Manipulations provided to NEI
 - Withdrawal of Mode 3/4 LOCA Topical by WOG
 - Withdrawal of RI IST Topicals by WOG

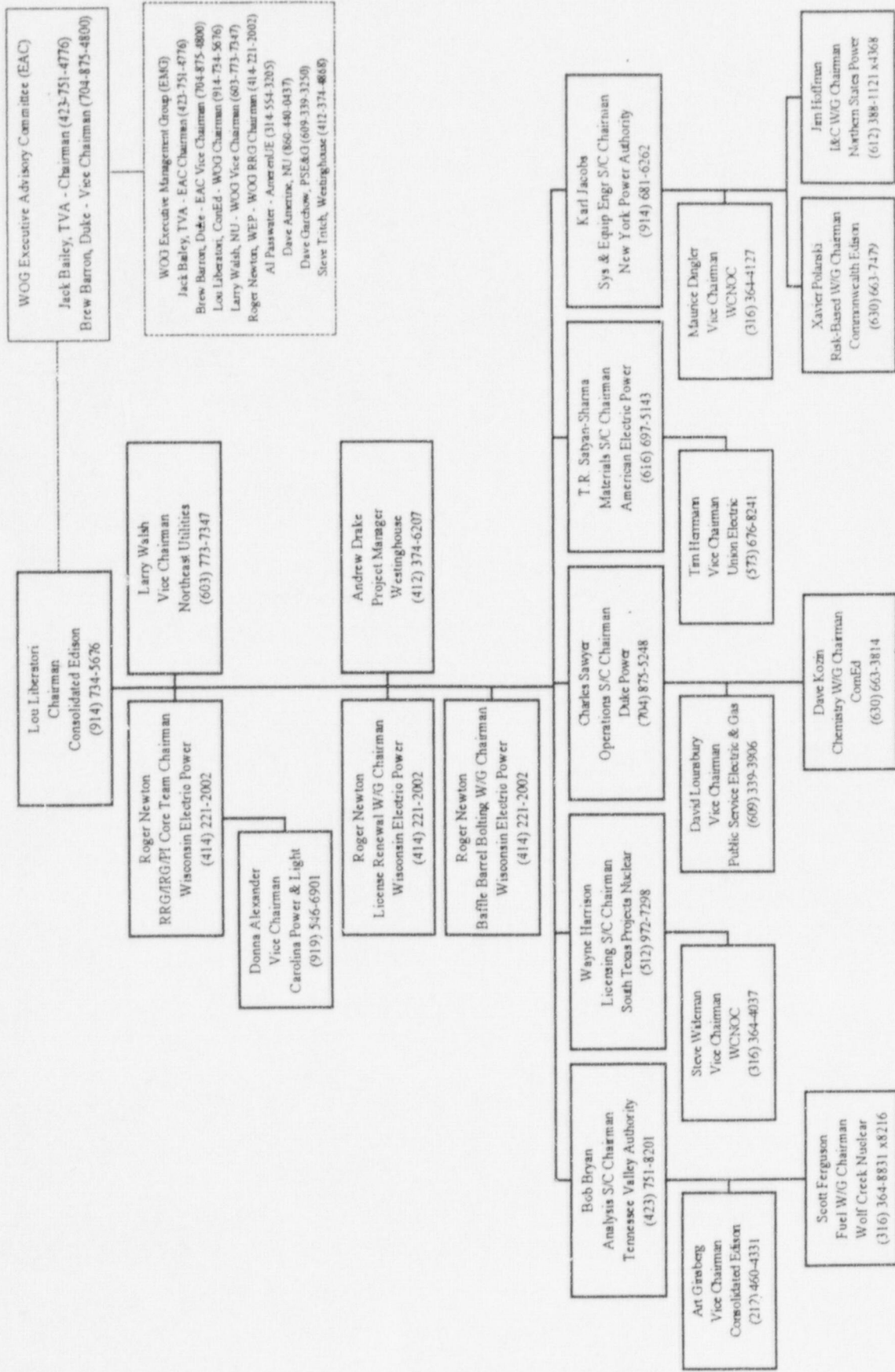
WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

I. INTRODUCTION - continued

- Agenda Review
- 1999 WOG Steering Committee
 - Organizational Chart

Westinghouse Owners Group Steering Committee - 1999



WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- **Top Nozzle Spring Clamp Screw**
 - In the Mid April outage at VC Summer - SCE&G experienced difficulty in gripping the top nozzle of a twice burned fuel assembly. Further examination indicated that most twice burned fuel assemblies exhibited gaps between the hold-down spring clamp and the top nozzle. Such gaps are indicative of failed top nozzle spring screws.
 - Chronology of WOG / W Activities
 - 4/15 - Problem experienced at VC Summer - immediate root cause investigation started. Fuel was moved to the SFP with out incident.
 - 4/19 - WOG IRG telecon with W/SCE&G
 - 4/19 - W / NRC informational telecon
 - 4/20 - W notified fuel customers
 - 4/22 - All WOG members notified

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Top Nozzle Spring Clamp Screw
 - 4/23 - WOG PI Core Team Telecon
 - 4/24 - W / NRC Informational Telecon
 - 4/26 - WOG PI Core Team Telecon
 - 4/26 - W / NRC Update Telecon
 - 4/27 - W / NRC Update Telecon
 - 4/28 - WOG/W/NRC Update Telecon

WESTINGHOUSE OWNERS GROUP WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS

- **Redefinition of LB LOCA Licensing Basis**
 - 9/98, Commissioner Diaz requested each OG to identify their highest priority regulatory issue
 - 11/98, WOG reply requested consideration of redefinition for LBLOCA
 - Present - evaluating current requirements to identify those with:
 - minimal impact on current safety envelope (risk informed)
 - significant operational / economic impact
 - potentially adverse safety impact
 - Future - discussion with NRC in October, 1999

WESTINGHOUSE OWNERS GROUP WOG / NRC INFORMATION MEETING

April 29, 1999

II. WOG PRESENTATIONS-Continued

- Baffle Barrel Bolting (BBB) Program
 - BBB Program Objectives
 - Maintain safety for WOG plants
 - Proactively manage the program with a systematic approach
 - Integrate WOG program tasks with MRP/ITG program tasks
 - Results of Plant Inspections
 - Bolt degradation less than anticipated from European experience
 - March 25, 1999 meeting with NRC presented details of plant inspections

WESTINGHOUSE OWNERS GROUP WOG / NRC INFORMATION MEETING

April 29, 1999

II. WOG PRESENTATIONS-Continued

- Baffle Barrel Bolting (BBB) Program
 - WOG Plans for 1999
 - Acceptable BBB analyses for plant groupings to be completed
 - Evaluation of extending LBB to smaller lines for 4-loop downflow plants
 - Additional hot cell testing of Farley & Point Beach BBB
 - Hot cell examination of Ginna BBB under consideration
 - Conclusion
 - It is appropriate to treat potential BBB degradation as an aging management issue, consistent with the on-going WOG program

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Risk Informed ATWS Model
 - Develop *Risk-Informed* ATWS model
 - Address NRC concerns with WCAP-11992
 - Demonstrate the approach in pilot application
 - 12/98 NRC/WOG Meeting
 - Information package provided before the meeting
 - Good Staff participation
 - Positive feedback on WOG approach
 - Staff identified additional item with respect to containment performance
 - Consequence assessment if RCS pressure exceeds 3200 psi
 - WOG questions value of performing detailed LERF assessment for events with very small changes in CDF ($< 10E-7$)
 - 3/99 WOG provided additional information in response to Staff questions
 - 4/99 -5/99 Evaluating the need to enhance certain areas of the program based on Staff feedback

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Containment Sump Issues
 - Application of GDC-4 and LBB to debris generation
 - Supported by all PWR OGs by letters to NRC
 - NRC held a public meeting on 12/15/98
 - NRC did not endorse OGs' interpretation
 - NRC stated that they will consider LBB in risk assessment of issue

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Containment Sump Issues
 - WOG actively participating with NRC
 - Participating in NRC research program public meetings
 - WOG providing technical expertise for Phenomena Importance and Ranking Table (PIRT) panels for both NRC research programs
 - Coatings failure phenomena - Savannah River Technical Center
 - Debris transport and risk assessment - Los Alamos National Lab
 - Offer made to review and comment on risk assessment of sump performance prepared as part of NRC's research program
 - Supporting NRC Research with WOG members
 - Letter issued requesting members respond to NRC sump information survey issued through NEI
 - Letter being prepared asking members consider NRC's request for Reference Plant volunteers

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Revised Core Damage Assessment Guidance (CDAG)
 - Update / revise CDAG to the current Severe Accident Knowledge, Accident Progression, Indications, and Fission Product Behavior
 - Relies on fixed in-plant instrumentation
 - Supports the relaxation of PASS requirements

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Relaxation of Post Accident Sampling System Requirements
 - Remove selected PASS requirements for timing and accuracy
 - Maintain PASS requirements
 - Containment atmosphere sample
 - Containment sump sample
 - RCS liquid sample
 - Revised CDAG & Relaxation of PASS Requirements
 - Under active review by NRC Staff
 - 4/30/99 ACRS Severe Accident Management Subcommittee meeting
 - 5/6/99 ACRS Committee meeting

WESTINGHOUSE OWNERS GROUP WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

II. WOG PRESENTATIONS - continued

- Risk Informed Technical Specifications
 - WOG supporting industry and NRC Risk Informed Tech Spec Initiative
 - Current WOG Risk Informed Tech Spec programs
 - Relaxation of Accumulator AOTs (SER issued)
 - Risk-Informed Tech Spec AOT Improvements
 - RT / ESF AOT / STI Relaxations
 - ECCS, RWST, Cont. Isolation Valves, Cont. Spray & Fan Coolers, MSSVs, ADVs, CCW, SW, and AC/DC systems

WESTINGHOUSE OWNERS GROUP WOG / NRC INFORMATION MEETING

April 29, 1999

II. WOG PRESENTATIONS-Continued

- MOV Program
 - Background
 - JOG effort with three other Owners Groups
 - MPR contracted to assist with JOG MOV Program development
 - Objective
 - Develop industry response to GL 96-05
 - Program Status
 - SER issued on Program Document
 - Third NRC Status Meeting held with NRR on April 14, 1999
 - Test program continuing

WESTINGHOUSE OWNERS GROUP WOG / NRC INFORMATION MEETING

April 29, 1999

II. WOG PRESENTATIONS-Continued

- **PSA Certification**
 - WOG PRA Peer Review Process adapted from the BWROG PRA Peer Review Process
 - WOG PRA Peer Review Pilot conducted at Surry in 1998
 - WOG PRA Peer Review Implementation - 3 year program
 - Perform PRA Peer Reviews of 29 WOG utilities
 - 4 Peer Reviews scheduled for 1999
 - Remaining Reviews to be conducted in 2000 and 2001

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

III. REVIEW WOG NRC SUBMITTALS

- Priority of WOG Submittals
- Future Planned WCAP Submittals

WOG WCAP Submittals - SER Issued or Withdrawn

WCAP #	WOG Priority	Title	OG Letter	Lead Plant	Estimated SER Date	Actions/Comments
9735 Rev 2 9736 Rev 1		Multiflex 3.0: A Fortran-IV Computer Program for Analyzing Thermal Hydraulic Structures: 1 Systems Dynamics Advanced Beam Model	OG-98-017 February 13, 1998 OG-98-033 March 3, 1998	Generic	N/A	WOG Request for review withdrawn via OG-98-074 dated 6/19/98
15126		Technical Assessment of the Part Length CRDM Housing Motor Tube Cracking in Westinghouse Owners Group Plants	WOG-PLC-018 October 15, 1998	Generic	N/A	Submitted for information only.
14571		WOG Application of Risk-Based Methods to Pump IST - Class 3 non-prop.	OG-96-077 - 9/5/96	TBD	N/A	Withdrawn via OG-99-038 4/27/99
14483		Generic Methodology for Expanded Core Operating Limits Report - Class 3 non-prop.	OG-95-093 - 12/1/95	Generic	Issued 1/19/99	Issued via OG-99-017 and WOG-99-056
12476		Evaluation of LOCA During Mode 3 and Mode 4 Operation for Westinghouse NSSS - Class 3 non-prop.	OG-91-61 November 27, 1991	Generic	N/A	Withdrawn via OG-99-039 4/28/99
13877		Reliability Assessment of Westinghouse Type AR Relays Used as SSPS Slave Relays	TVA LAR February 28, 1996	Watts Bar	Issued 10/26/98	Approved version of WCAP issued via WOG-SRT-99-003 2/5/99
14358 / 14358 Supplement		WOG Application of Risk-Based Methods to Check Valve IST - Class 3 non-prop.	OG-96-078 - 9/5/96	TBD	N/A	Withdrawn via OG-99-037 4/27/99
15029/15030		W Methodology for Evaluating the Acceptability of Baffle-Former Bolting Distributions Under Faulted Load Conditions	OG-98-030 February 27, 1998 OG-98-043 March 25, 1998	Generic	Issued 11/10/98	
14748/14749		Justification for Increasing Postulated Break Opening Times in Westinghouse Pressurized Water Reactors	OG-97-006 January 31, 1997	Generic	Issued 10/1/98	Limited applicability to BBB program. Re-request approval for generic application via OG- 98-120 12/98. Approved version of WCAP issued to NRC via OG-99-008 2/99.
14572 Rev 1 / 14572 Rev 1 Supp 1		WOG Application of Risk Based Methods to Piping Inservice Inspection	Submitted by NEI October, 1997	Surry 2	Issued 12/15/98	Approved version of topical issued via OG-99-014, dated 3/8/99
V-EC-1658- Rev 1		Risk Ranking Approach for Motor-Operated Valve in Response to GL 96-05	OG-97-127 December 19, 1997	Generic	Issued 4/14/98	
15049-NP		Risk-Informed Evaluation of an Extension to Accumulator Completion Times - Class 3 non-prop.	OG-98-093 August 20, 1998	Wolf Creek	Issued 2/19/99	Wolf Creek LAR submitted 10/98. Approved version to be issued 4/99.

14333-P 14334-NP	Probabilistic Risk Analysis of the RPS and ESPAS Test Times and Completion Times	OG-95-51 June 20, 1995	Ginna	Issued 7/15/98	Approved versions issued via OG-98-109 and WOG-98-221 10/98
14036 / 14037	Elimination of Periodic Protection Channel Response Time Test	OG-98-005 January 27, 1998	Vogtle	Issued 10/6/98	Approved versions issued via OG-98-115 and WOG-98-238 11/98
14486 / 14487	ECCS Hot Leg Recirculation Elimination for Westinghouse 3 and 4 Loop Design NSSS	OG-96-034 July 18, 1996	N/A	N/A	Withdrawn. Via OG-98-107, 10/98.
15036 / 15037	Determination of Acceptable Baffle-Barrel- Bolting for Two-Loop Westinghouse Domestic Plants	OG-98-048 March 31, 1998 OG-98-054 April 24, 1998	Generic	N/A	WOG Request for review withdrawn via OG-98-074 dated 6/19/98

WOG WCAP Submittals to NRC

WCAP #	WOG Priority	Title	OG Letter	Lead Plant	Estimated SER Date	Actions/Comments
14696	1	Core Damage Assessment Guidance - Class 3 non-prop.	OG-96-098 November 22, 1996	Wolf Creek	5/99	Wolf Creek LAR submitted 11/98. WOG/NRC meeting 2/24/99. RAls expected by mid-March.
14986 Rev 1 14987 Rev 1	2	WOG Post Accident Sampling System Requirements: A Technical Basis	OG-98-108 October 26, 1998	Wolf Creek	5/99	Wolf Creek submitted LAR 11/98. RAls and WOG/NRC meeting expected 3/99. Possible ACRS involvement
14748/14749	3	Justification for Increasing Postulated Break Opening Times in Westinghouse Pressurized Water Reactors	OG-97-006 January 31, 1997 Re-submitted OG-98-120 December 10, 1998	Generic	Issued 10/1/98 for BBB Generic TBD	Limited applicability to BBB program. Re-request approval for generic application via OG-98-120 12/98. Approved version of WCAP issued to NRC via OG-99-008 2/99.
14750 / 14754	4	RCS Flow Verification Using Elbow Taps at Westinghouse 3-Loop PWRs	Submitted by Southern Nuclear November 26, 1996.	Farley	5/99	Response to second set of RAls issued 1/99
10541, Rev. 2	5	Reactor Coolant Pump Seal Performance Following Loss of All AC Power	OG-84-122 May 3, 1984 OG-86-206 (Rev. 2) December 10, 1986	Generic	On Hold	WCAP not active; being reviewed because final generic resolution of issue is being evaluated

Note: Estimated SER dates are provided by NRC.

License Renewal Submittals

WCAP #	WOG Priority	Title	OG Letter	Lead Plant	Estimated SER Date	Actions/Comments
14422, Rev. 2	1	License Renewal Evaluation: Aging Management for Reactor Coolant Supports	OG-97-024 March 4, 1997	Generic	unknown / TBD	RAI activity complete. SER written and in review channels Awaiting SER from NRC.
14574	3	License Renewal Evaluation: Aging Management for Pressurizer	OG-96-052 July 3, 1996	Generic	June, 2000	RAI process complete. Draft SER will contain any remaining open items.
14575	2	License Renewal Evaluation: Aging Management for Class 1 Piping	OG-96-071 August 28, 1996	Generic	April, 2000	RAI process complete. Draft SER will contain any remaining open items.
14756	4	License Renewal Evaluation: Aging Management for Pressurized Water Reactor Containment Structure	OG-96-103 December 11, 1996	Generic	December, 1999	RAI process complete. Draft SER will contain any remaining open items.
14577	5	License Renewal Evaluation: Aging Management for Reactor Vessel Internals	OG-97-088 September 2, 1997	Generic	August, 2000	RAIs scheduled for February, 2000

Note: Estimated SER dates are provided by NRC.

ASIC Subgroup Program

WCAP #	WOG Priority	Title	OG Letter	Lead Plant	Estimated SER Date	Comments
XXXXX	-	ASICS Based Replacement Modules for Use in Analog Process Control and Protection Applications	OG-97-069 July 10, 1997 WOG-ASIC-98-002 June 5, 1998	South Texas	6/99	Chapters 1,2,3, & 7 submitted Chapters 4, 5, 6, 8, & 9 scheduled for submittal 5/99.

Anticipated WOG WCAP Submittals to NRC

WCAP #	WOG Priority	Title	Estimated Submittal Date	Comments
XXXXX	-	RT & ESF Logic and Rx Trip AOT and STI	4 th Quarter, 1999	
XXXXX		Risk Informed AOT Extensions (1 to 3)	4 th Quarter, 1999 ?	
XXXXX		Risk Informed ATWS	2000 ?	

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

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IV. NRC

- RCP Seal Issue (GSI-23) Update
- Open Discussion

WESTINGHOUSE OWNERS GROUPS WOG / NRC SENIOR MANAGEMENT MEETING

April 29, 1999

V. CLOSING COMMENTS

- Comments / Suggestions
- Action Item Review

Westinghouse Owners Group

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