

Chairman's Report

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March 5, 2002

Topics

- ◆ Management Update
- ◆ CEOG/WOG Joint Projects
- ◆ Strategic Technical Issues

Owners Group Consolidation

- ◆ CEOG & WOG Project Offices combined in 11/01
 - Project office staff realigned to facilitate consolidation of CEOG & WOG
 - Alignment of project engineers to 'like' committees
- ◆ Planning for OG consolidation
 - target date is January 2004
- ◆ Anticipate more project choices via cafeteria funding
 - challenge is to manage topical report generation and staff resources needed to review

Topics

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Topical Report Summary

- ◆ Year 2002 - Underway
 - One Report Approved to date (Alloy 600)
(SE = 2/08/02)
 - Four Reports under NRC Review
 - ◆ RCP Seals, 3.0.3 TS, Common-Q Ph-3, Containment
ILRT Test Interval
 - Five Reports in Preparation
 - ◆ R-I RV ISI, STAR, Alt Mode 6 Cooldown, Staggered ESF
Testing, HPSI “backstop” AOT

Topical Reports in NRC Review

- ◆ RCP Seal Failure Model (CE NPSD-1199) (PSASC)
 - Justifies less-restrictive SBO failure model
 - ~100 draft RAIs issued 7/12/01; Reply ~5/02
 - SE ~ 3Q02
- ◆ Common-Q (CENPD-396, Phase 3) (I&CSC)
 - Qualified digital CPC replacement
 - Close-out of Phase 2 open items
 - Equipment Qualification submittal ~ 3/02
 - SE ~ 2Q02

Planned CEOG Topicals

- ◆ Startup Test Time Reduction - 3Q02 (OMSC)
 - Eliminate redundant post-refuel zero-power physics testing
- ◆ Alternate Mode 6 Cooldown - 1Q02 (OMSC)
 - Permits cooldown using recirc through spent fuel pool
- ◆ Staggered Integrated ESF Testing - 3Q02 (OSC)
 - Justify testing trains on alternate cycle
- ◆ Common-Q (CENPD-396) - 1Q02 (I&C)
 - Phase 3 - submit EQ Test Summary Report
- ◆ HPSI System AOT Extension - 1Q02 (PSASC)
 - Pilot application to justify "backstop" AOT extension

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2002 CEOG Strategic Issues

◆ Design/Licensing Basis

- Joint Engineering Inspections (self-assessments)
- Risk-informed Regulation
- Maintenance Rule Implementation
- RCP Seal Integrity
- ECCS Sump Strainer Blockage
- Diversity and Defense in Depth

2002 CEOG Strategic Issues

◆ Materials Degradation

- Reactor Vessel, Head, Internals Management
- Coordination with EPRI MRP

◆ Risk Informed Applications

- SGTR PSA Notebook for PWRs
- Risk Informed Technical Specifications (Backstop AOT)

◆ Shorter Refueling Outages

- Outage Preparation Readiness Review Program
- Alternate Decay Heat Removal in Mode 6
- Startup Test Elimination, STAR
- Containment ILRT Extension
- Staggered ESF Testing
- Staggered Battery Discharge Tests

Alloy 600 Inspection Experience

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- Since the initial Oconee-3 RVH inspection performed in 2/01, but prior to NRC Bulletin 2001-01:
 - » 8 plants performed some form of RVH inspection using various visual and NDE techniques
 - 2 B&W plants, 4 W plants and 2 CE plants
- Since NRC issued Bulletin 2001-01 in 8/01:
 - » 12 plants have performed RV head inspections, using a combination of visual techniques and NDE techniques
 - 3 B&W plants, 8 W plants and 1 CE plant

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Alloy 600 Inspection Experience

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- Since February 2001 indications of leaks have been found in 5 B&W plants and 2 W plants
 - » A total of 30 leaking penetrations were found
 - » 11 circumferential defects above the attachment J-weld were confirmed via ECT, UT and PT.
 - 3 B&W plants, 6 circumferential defects
 - 2 W plants, 5 circumferential defects

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CRDM Nozzle Cracking Inspection Status-4Q01

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PLANT	INSPECTION DATE	PENETRATIONS VISUALLY INSPECTED	PENETRATIONS NON-VISUAL INSPECTIONS	PENETRATIONS NON-VISUAL INSPECTIONS	LEAKING PENETRATIONS	PENETRATIONS CRACK ABOVE ATTACHMENT J WELD
ANO-1	Mar-01	89	1	ECT,UT,PT	1	0
Basener Valley 1	Sep-01	65	0	0	0	0
Calvert Cliffs 2	Mar-01	8	0	0	0	0
Crystal River 3	Oct-01	89	9	UT	1	1
Farley 1	Oct-01	89	0	0	0	0
Farley 2	Feb-01	69	0	0	0	0
Kewaunee	Sep-01	40	0	0	0	0
McGuire 1	Mar-01	11	0	0	0	0
North Anna 1	Sep-01	65	30	ECT,UT,PT	0	0
North Anna 2	Nov-01	65	3	UT,PT	3	3
Oconee 1	Nov-00	69	18	ECT,UT	1	0
Oconee 2	Apr-01	69	4	ECT,UT,PT	4	1
Oconee 3 Initial	Feb-01	69	18	ECT,UT	9	3
Oconee 3 re-insp.	Nov-01	69	7	ECT,UT	5 (7 repaired)	1
Prairie Island 1	Jan-01	40	0	0	0	0
HB Robinson 2	Apr-01	69	0	0	0	0
Salem 1	Apr-01	78	0	0	0	0
SONGS 2	Oct-00	34	0	0	0	0
SONGS 3	Jan-01	34	0	0	0	0
St. Lucie 1	Apr-01	2	0	0	0	0
St. Lucie 2	Nov-01	102	0	0	0	0
Surry 1	Oct-01	65	16	UT,PT	2(6 repaired)	2
Surry 2	Nov-01	65	0	0	0	0
TMI-1	Oct-01	69	12	UT,PT	5	0
Turkey Point 3	Oct-01	65	0	0	0	0

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CRDM Nozzle Inspection Plans in CEOG Plants

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CEOG Plant	Inspection Type	Extent of Inspection at Next Refueling Outage	Next Scheduled Outage
Calvert Cliffs 1	Visual	100%	Spring 02
Millstone 2	Volumetric	100%	Spring 02
Waterford 3	Visual/Volumetric	100%	Spring 02
ANO2	Surface or Volumetric	100%	Spring 02
SONGS 2	Volumetric	100%	Spring 02
Palo Verde 2	Volumetric	100%	Spring 02
Fort Calhoun	Visual	100%	Spring 02
St. Lucie 1	Visual	100%	Fall 02
Palo Verde 1	TBD	TBD	Fall 02
SONGS 3	Volumetric	100%	Spring 03
Calvert Cliffs 2	Visual, or Volumetric	100%	Spring 03

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CRDM Housing TGSCC Evaluation Update

CRDM Housing TGSCC Update

● Overview

- » Discovery of TGSCC at Palisades has raised NRC concerns
 - inspection capability
 - applicability of problem to other PWRs
- » All PWR Owners Groups are performing similar work to identify potential susceptible regions/conditions
- » Expectation is to be able to determine fleet susceptibility to TGSCC and recommend next steps
- » NRC expects update from Owners Groups in early 2002
 - NEI plans next meeting with OGs on April 24, 2002

CRDM Housing TGSCC Update

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- Palisades Root Cause Assessment review and review of other data:

- » 1 leaking CRDM, 39 with part through-wall flaws
- » Axial flaws dominate, some circumferential flaws
- » In or adjacent to reducer pipe welds
- » No indications at other welds, but questions on extent of exams
- » OD UT not effective in detecting flaws
- » Grinding during fabrication evident
- » CRDM housing environment probably moderate temperature, high oxygen

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CRDM Housing TGSCC Update

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- CEOG Evaluation Strategic Plan Elements:

- » Assess previous experience
 - Evaluate Findings from Palisades
- » Determine necessary conditions to cause TGSCC
- » Identify where similar conditions could exist in CEOG plants
- » Determine Current status of CEOG Plants
- » Determine Venting Practices and History
- » Determine Flaw Tolerance
- » Determine Examination Techniques
- » Document Evaluation Results
 - Susceptibility of CEOG plants and locations to TGSCC
 - Next Steps (mitigation, inspection, NDE development etc.)

■ = done
■ = by next month
■ = next 2-3 months

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CEOG History in Advancing Risk Informed Regulation and Applications

- Early focus on model development, accuracy and TS AOT extensions.
- Utilized Joint Application Process (JAR) to address quality by focusing on understanding of plant-plant PSA differences
- Early successes included framework for 14 day RI EDG AOT and development of CRMP
 - » CRMP later became basis for 10CFR50.64a(4)
- Quality efforts extended to standards, guidelines and PSA peer reviews.

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03/05/02

CEOG History in Advancing Risk Informed Regulation and Applications

- CEOG has benefited from NRC interactions
 - » the continuous cohesion of the group
- Joint Applications and infrastructure development have left the CEOG members with improved PSAs


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03/05/02

Initiative 4B: Flexible AOTs

- Establish the concept for a Risk Informed "Flexible" AOT
 - » Utilize TS structure consistent with ISTS
 - » Risk control and management process to be consistent with Maintenance Rule assessment process
 - » Allow potential for "graded" implementation based on scope and capability of PSA
 - » Risk management process to be consistent with intent of RG 1.174

Benefits of Flexible AOTs

- Further focuses plant efforts on risk importance of selected activities
- Allows for improved maintenance scheduling
 - » e.g. use of single entry repairs in place of less efficient multiple entry repairs
- Minimizes unnecessary plant shutdowns
-  ● Significantly reduce NOED requests
 - » reduction in burden to both utility and regulator

CEOG/WOG Cooperation and Task Sharing

- Joint projects are
 - » increasing uniformity in PSA modeling
 - » providing approaches applicable to large group of PWRs
 - » SGTR modeling notebook as an example
- CEOG and WOG PSA committees meeting together
 - » identify generic projects and issues
- Joint projects should leverage resources and costs both for utility and NRC

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03/05/02

Summary

- Benefits of CEOG work has resulted in useable regulations, reduced plant risks and significant economic benefits
- Ensuring and maintaining quality will be an important factor as PSA applications move forward
- Coordination with WOG PSA being pursued and benefits being derived

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03/05/02