

AGENDA

- 8:30** **Introduction**
- 8:35** **Opening Remarks**
- 9:15** **CE Owners Group Report** Gary Pavis
- 9:30** **CEOG/NRC Regulatory Interface** Ed Scherer
- Assessment of the Relationship with the NRC
- Fee Waiver Discussion
- Status Topical Reports and CEOG Implementation
- Report on the Topical Report Self-Assessment
- 10:15** **Discussion of RV Head Issues** – Mike Melton
- CRDM Bulletin Jack Strosnider
- CEA Cracking Gary Holahan/Jared Wermeil
- 11:00** **NRC Topics**
- Next Generation of Performance Indicators Mike Johnson/Tom Boyce
- Licensee Self-assessments (LSA) Mike Johnson
- 11:30** **Open discussion**
- 11:45** **Adjourn**

Chairman's Report

Gary Pavis

November 15, 2001

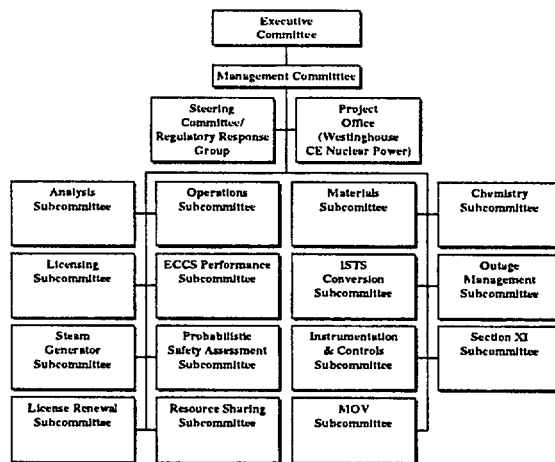
Topics

- ◆ Management Update
- ◆ Enhanced Regulatory Interface
- ◆ CEOG/WOG Synergies
- ◆ Strategic Technical Issues

Management Update

- ◆ 2002 CEOG Officers
 - Chairman - Dick Bernier (APS)
 - Vice Chairman - Gary Pavis (CCNPP)
 - Steering Committee
 - ✦ Dave Pilmer (SCE)
 - ✦ Jerry Holman (Entergy - WSES)

CEOG COMBUSTION ENGINEERING OWNERS GROUP



Topics

- ◆ Management Update
- ◆ Enhanced Regulatory Interface
- ◆ CEOG/WOG Synergies
- ◆ Strategic Technical Issues

Enhanced Regulatory Interface

- ◆ Licensing Subcommittee increased communication with NRC
 - Managing strategic issues
 - Topical report review
- ◆ Self Assessment of regulatory Interface completed
 - NRC staff and CEOG shared results
- ◆ Licensing Subcommittee presentation will cover more details
- ◆ Overall CEOG believes regulatory interface has improved

Enhanced Regulatory Interface

- ◆ Frequent Interaction with NRC staff via meetings, telecon
- ◆ Two Safety Evaluations Issued (5/2001 - 10/2001)
 - ◆ Tech Spec End States
 - ◆ DC Power AOT Extension
- ◆ Four CEOG Topicals Currently (11/00) under Review
 - ◆ Containment ILRT Extension
 - ◆ RCP Seals
 - ◆ Exigent Shutdown Extension
 - ◆ Alloy 600 / 690 Nozzles
- ◆ Six CEOG Topicals under Development
 - ◆ Alt Mode 6 Cooling
 - ◆ SU Time Reduction
 - ◆ Staggered ESF Testing
 - ◆ Common-Q phase 3
 - ◆ Risk-Informed Vessel ISI
 - ◆ HPSI "Backstop" AOT
- ◆ NRC Review fees partially refunded on "first" risk informed Tech Spec submittals - appreciate NRC Management and staff support

Topics

- ◆ Management Update
- ◆ Enhanced Regulatory Interface
- ◆ CEOG/WOG Synergies
- ◆ Strategic Technical Issues

CEOG/WOG Synergies

- ◆ Co-locating committee meetings
 - ✦ PSA, Licensing, Materials, Subcommittees
- ◆ Joint leadership meetings
 - ✦ Management Committee/General Session - June 2001
- ◆ Identifying high generic content projects for cost share leveraging
 - ✦ best current approach for stretching funds
 - ✦ increases benefit derived from NRC reviews
- ◆ Facilitating flow of information between committee chairmen
- ◆ Single Program Management Office (PMO) for both Owners Groups

Topics

- ◆ Management Update
- ◆ CEOG/WOG Synergies
- ◆ Enhanced Regulatory Interface
- ◆ Strategic Technical Issues

2001 CEOG Strategic Issues

- ◆ Reactor Plant Materials Issues
- ◆ Steam Generator Integrity
- ◆ Design/Licensing Basis
- ◆ Plant Performance Improvements
- ◆ Shorter Refueling Outages
- ◆ O&M and Capital Cost Reduction
- ◆ Equipment Obsolescence

2001 CEOG Strategic Issues

- ◆ **Steam Generator Integrity**
 - Tools for Operational Assessments and Condition Monitoring
 - Improvements in NDE and Basis for Tube-sheet Region Inspections
 - Thermally Induced SGTR Analyses
 - IP2 Steam Generator Tube Rupture Event
 - Coordination with EPRI SGMP

2001 CEOG Strategic Issues

◆ Design/Licensing Basis

- Risk Based Technical Specifications (Backstop AOT)
- Joint Engineering Inspections (self-assessments)
- License Renewal/Generic Aging Management Reports
- Risk-informed Regulation/Technical Specifications
- Maintenance Rule Implementation
- RCP Seal Integrity
- ECCS Sump Strainer Performance
- Extend LBB to Redefine LB LOCA

2001 CEOG Strategic Issues

◆ Reactor Plant Materials Issues

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

◆ Plant Performance Improvements

- EOP Improvements
- Analysis of UCLF Contributors

◆ 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

Licensing Subcommittee Chairman's Report

Ed Scherer, SCE
November 15, 2001

CEOG Licensing Subcommittee - 1

CEOG Regulatory Interface

- ◆ CEOG believes regulatory interface has improved
 - Increased communication with NRC
 - Self assessment report

CEOG Licensing Subcommittee - 2

Self Assessment Findings

- ◆ Key areas for improvement:
 - Implement parallel, not series, processes
 - Understand needs, expectations, and priorities
 - Communications with NRC

Self Assessment Findings

- ◆ Utility Commitment to Implement
 - Each participant needs to follow their implementation plan & schedule

CEOG Topical Report Implementation Status															
Subject	Review Status	AND-2	CC-1	CC-2	FC-1	MP-2	Pal	PV-1	PV-2	PV-3	EL-1	EL-2	SO-2	SO-3	WA-3
Change in Tech Spec End-of-Cycle Negative MTC Limit CE NPSD-911	SE issued 6/14/00	7/01	4/01	4/01	Not planned	Not planned									6/29/00
ST ADT Extension CE NPSD-994	SE issued to AND 898	8/17/00	2/02	2/02	Not planned	Not planned	10/20/00	1/02	1/02	1/02	1/02	1/02	8/02	8/02	2/16/01
LRS ADT Extension, CE NPSD-995	SE issued to SCE 946	2/03	3/02	3/02	Not planned	Not planned	10/30/00	10/10/00	2/16/01	2/16/01	2/16/01	2/16/01	8/02	2/02	4/20/00
Dead Generator ADT Extension CE NPSD-996	SE issued to SCE 996	5/01	2/02	2/02	Not planned		5/31/01	Not planned	3/02	3/02	3/02	3/02	8/02	8/02	7/21/00
Containment Spray System ADT Extension CE NPSD-1045	SE issued 12/21/00	2/03	3/02	3/02	Not planned	Not planned	Pending TSTF Results	Pending TSTF Results	Pending TSTF Results	Pending TSTF Results	4/02	4/02	8/12/01	8/12/01	5/12/00
PASS Elimination CE NPSD-1157, R01 CUIP app'd 10/25/00	SE issued 5/18/00	5/18/00			1/24/01 (10/04)	10/10/01	5/23/01	2/27/01 (Green - 1/02)	4/27/01 (Green - 1/02)	4/27/01 (Green - 1/02)	10/10/01	2/23/02	4/27/01	10/10/01	7/27/01
Elimination of Response Time Testing CE NPSD-1157 R02	SE issued 12/05/00 (Green - 7/02)	8/01	3/02	3/02	Not planned	Not planned		5/01	5/01	5/01	4/02	4/02	10/12	10/12	7/01
Containment Isolation Valve ADT Extension LIR for 8 CEOG #1161	SE issued 12/21/00	3/02	3/02	3/02	Not planned	Not planned	2/02	Pending TSTF Results	Pending TSTF Results	Pending TSTF Results	4/02	4/02	Not planned	Not planned	10/02

Cell color = Green indicates Tech Spec change implemented (and date)
 Cell color = White indicates Tech Spec amendment request approved by NRC (and date)
 Cell color = Yellow indicates Tech Spec amendment request submitted or planned (and date)
 Cell color = Gray indicates not applicable or no licensee action planned

CEOG Topical Report Implementation Status, Continued

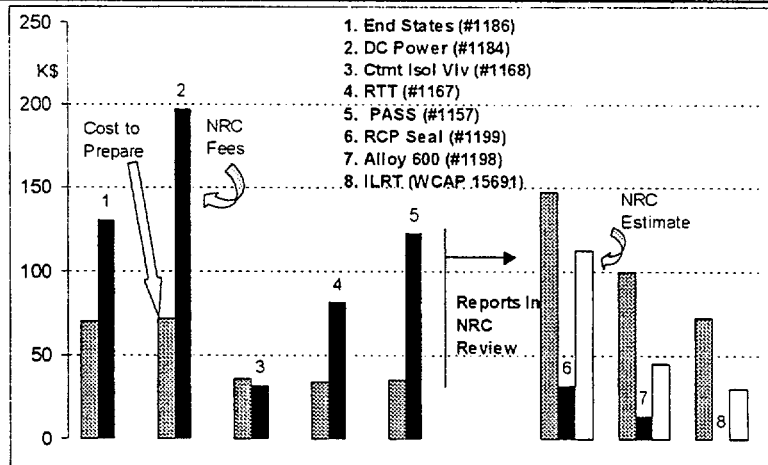
One DC Power Train COG ADT Extension CE NPSD-1184	SE issued 5/28/01	2/02	4/02	4/02	Not planned	Not planned	Pending TSTF Results				Not planned	Not planned	Lead	Lead	2/02
Risk-Informed Mtds to TS Action End States CE NPSD-1186	SE issued 7/17/01	3/02	Not planned	Not planned	Not planned	Not planned	Pending TSTF Results	Not planned	Not planned	Not planned	4/02	4/02	Lead	Lead	3/02
Topical Reports Under NRC Review															
Global Risk Informed Changes to TS 3.0.3 Actions CE NPSD-1208	Submitted by NE		Not planned	Not planned	Not planned	Not planned	Pending TSTF Results	Not planned	Not planned	Not planned	4/02	4/02	Lead (after SE issued)	Lead (after SE issued)	
Extension of Confirmed LVRT Frequency WCAP-1589	Submitted to NRC 7/19/01				2/02	Not planned									7/01

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NRC Actions

- ◆ NRR Office Instruction LIC-500 issued
- ◆ NRC granted partial fee waiver
- ◆ NRC is now providing a review fee estimate and schedule upon accepting a topical for review

Cost Summary Detail



Slide 1

Reactor Vessel Head / Alloy 600
Issues
CEOG Plants Update

Michael Melton, APS

CEOG Executive Committee / NRC Management Meeting

November 2001

Agenda

Slide 2

- Reactor vessel head penetration issues
- Bimetallic weld experience update
- Response to TGSCC emerging issue
- NRC feedback

CEOG Executive Committee / NRC Management Meeting

November 2001

Overview of CEDM Nozzle Status

Slide 3

- Background
- Latest inspection results
- CEOG plant inspection plans

CEOG Executive Committee / NRC Management Meeting

November 2001

CEDM Nozzle Background

Slide 4

- Oconee-3 findings have changed assumptions used in GL 97-01 safety assessment
- Industry responded with an interim safety assessment
 - » Considers formation of OD-initiated circumferential cracks from through-wall leakage of ID-initiated cracks
 - » Considers accelerated growth through weld metal
- Ranked all PWRs with respect to equivalent EFPY to reach Oconee-3 time at temperature condition
- MRP suggested all plants within 10 EFPY of Oconee-3 and with fall 2001 outages conduct visual inspections

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November 2001

CEDM Nozzle Cracking Inspection Status

Slide 5

PLANTS THAT HAVE PERFORMED "BARE METAL" VISUAL INSPECTIONS

Plants	Most Recent Inspection				
	Date	Method & Scope	Summary of Cracked or Leaking CRDM Nozzles		
			Total Number	Circumferential Nozzle Cracks	Number Repaired
Oconee 1	11/2000	Qualified Visual - 100%	1*	0	1
Oconee 3	02/2001	Qualified Visual - 100%	9	3**	3
AND-1	03/2001	Qualified Visual - 100%	1	0	1
Oconee 2	04/2001	Qualified Visual - 100%	5	1	5
Robinson	04/2001	Qualified Visual - 100%***	0	0	0
North Anna 1	09/2001	Qualified Visual - 100%***	8	0	0
Crystal River 3	10/2001	Effective Visual - 100%****	1	1	1
TMI-1	10/2001	Qualified Visual - 100%	8*	0	6
Surry 1 (in progress)	10/2001	Qualified Visual - 100%***	10	TBD	5
North Anna 2 (in progress)	10/2001	Qualified Visual - 100%***	(3)	TBD	TBD

* Thermocouple nozzles also cracked/leaking: Oconee 1 (5 out of 8), TMI 1 (8 out of 8)
 ** The size of 2 out of 3 circumferential flaws were identified from destructive examination
 *** Pending acceptability of licensee's supplemental response
 **** The highest ranked MODERATE susceptibility plant
 Moderate susceptibility plants that have completed effective visual examinations in Fall 2001 with no evidence of boric acid deposits: Beaver Valley 1, Farley 1, Kewaunee, and Turkey Point 3

CEOG Plant Inspection Planning

Slide 6

- Most CEOG plants have RV head insulation configurations that make visual access difficult
- NRC acknowledged these problems, but concerns noted with any request to defer inspections were:
 - » need inspection results from industry beginning now to validate management of safety issue
 - » partial inspection commitments do not satisfy statistical acceptance among the small population of penetrations
 - » address safety basis for deferred inspections

CEOG Plant Inspection Current Understanding

Slide 7

- No inspection results to date from CEOG plants in accordance with Bulletin 2001-01 requests

Moderately Susceptible Plants	Inspection Type	Extent of Inspection at Next Refueling Outage	Next Scheduled Outage
St. Lucie 2	Visual	100%	Fall 01
Calvert Cliffs 1	Visual	100%	Spring 02
Millstone 2	Volumetric, surface or Visual	100%	Spring 02
Waterford	Visual	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

- CEOG plants with RFOs beginning in 4Q01 plan to inspect in accordance with Bulletin
 - » St. Lucie-2 will be first CE plant scheduled to perform 100% top-of-head effective visual inspection (11/01)

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November 2001

Reactor Vessel Head Strategic Plan

Slide 8

- CEOG and WOG intended to support a joint project to develop a plan for managing RV head decisions
 - » Crack detection and susceptibility predictions
 - » PWSCC prevention, mitigation and repair strategies
 - » RPV head replacement strategies
- OGs recommended MRP (A600 ITG) develop this plan and assignment was accepted
 - » will include decision logic and activities, based on outcome of inspections requested by NRC
 - » expect plan to recommend MRP, Owners Group work activities
- Draft plan discussed at 11/7-8/01 A600 ITG meeting
 - » outline of activities/relationships only at this time

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CEOG Plant BiMetallic Weld Issue Update

Slide 9

- V.C. Summer bimetallic weld joint flaw indication between primary HL piping and reactor vessel outlet nozzle
 - » NRC issued Notice 2000-17 to all licensees
- Locations of weld joints with similar configurations have been identified in CE supplied NSSS
 - » Full penetration pressure retaining welds
 - » Partial penetration welds of small nozzles to buttering or cladding locations
 - » Weld repairs planned to be reviewed in future work
- ANO-2 and Waterford-3 have inspected additional welds using a combination of UT and VT
 - » No findings reported

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CEDM Stainless Steel (TGSCC) Update

Slide 10

- NRC has been involved in Palisades CEDM housing leak investigation
 - » degradation caused by transgranular stress corrosion cracking
- Emerging issue that may apply to other plants
 - » widespread application of stainless steel components in pressure boundary may also be susceptible to TGSCC
 - » inspections from OD were not successful in finding all ID-initiated defects
- NRC elaborated their concerns to NEI, industry in a recent letter and telephone discussions
 - » public meeting is scheduled on November 27, 2001
 - » expect to receive information from industry regarding the applicability of this degradation to other plants

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November 2001

CEDM Stainless Steel (TGSCC) Update

Slide 11

- All PWR Owners Groups are performing work to identify potential susceptible regions/conditions:
 - » stainless steel applications in RCS pressure boundary
 - » flow stagnation and venting practices, history
 - » update CEDM housing inspection results
 - » evaluate Palisades root cause report and compare findings to conditions in remaining plants

- Expectation is to be able to determine plants susceptibility to TGSCC and recommend next steps

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November 2001

NRC Issues and Recent Feedback

Slide 12

- Discussion and Feedback from NRC is Requested

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November 2001

**CRITERIA FOR
EXEMPTIONS CITING
FOOTNOTE 4 OF
10 CFR 170.21**

November 15, 2001

**Office of the Chief Financial Officer
Division of Accounting and Finance**

BASES FOR FOOTNOTE 4

- FY 1994 fee rule revised the definition of Special Projects provided in § 170.3 and the Footnotes in §§170.21 and 170.31 were revised to indicate that Part 170 fees will not be assessed for requests/reports which have been submitted to the NRC:
- (a) In response to a generic letter or NRC Bulletin that does not result in an amendment

to the license, does not result in the review of an alternate method or reanalysis to meet the requirements of the Generic Letter, or does not involve an unreviewed safety issue;

- (b) In response to an NRC request (at the Associate Office Director level or above) to resolve an identified safety, safeguards, or environmental issue, or to assist the NRC

in developing a rule, regulatory guide,
policy statement, generic letter, or bulletin;
or

- (c) As a means of exchanging information between industry organizations and the NRC for the purpose of supporting NRC's generic regulatory improvements or efforts.

- **Definitions:**
- **Special Projects** are those requests submitted to the Commission for review for which fees are not otherwise specified
- **Alternate Method** is a method that deviates significantly from the method proposed.

- **Definitions (cont'd):**
- **Reanalysis** is an analysis of an alternate method but not a review of changes to a method which is consistent with that proposed by the Generic Letter;
- **Unreviewed safety issue** is a safety issue unrelated to the safety issue identified in the generic communication that arises from proposal of an alternate method and will require reanalysis by the NRC staff