



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555-0001

May 31, 1994

MEMORANDUM FOR: Steven A. Varga, Director
Division of Reactor Projects, I/II

FROM: Jose Calvo, Assistant Director
for Region I Reactors
Division of Reactor Projects, I/II

SUBJECT: SUMMARY OF ANNUAL MEETING WITH ABB-CE OWNER'S GROUP

On May 11, 1994, Nuclear Regulatory Commission (NRC) staff met with the members of the ABB-CEOG executive committee and members of the ABB-CEOG committee at the NRC Headquarters in Rockville, Maryland. The purpose of the meeting was to review the status of all activities and communications between NRC and ABB-CEOG during the past year and to discuss future actions. Enclosure 1 is a list of meeting attendees.

The ABB-CEOG provided an overview of its ongoing programs and discussed the status of the activities of Shutdown Issues Working Group, Licensing Subcommittee, and Alloy 600 Working Group. As requested by ABB-CEOG, NRC provided a summary of the status of its activities related to cost beneficial licensing activity (CBLA) and license renewals.

During 1994 ABB-CEOG will emphasize responding to NRC safety concerns, obtaining NRC approval of various submittals, evaluating generic implications of emerging issues as they pertain to CE plants, and continuing to facilitate effective industry communication.

ABB-CEOG indicated that it has prioritized its topical reports under NRC review to ensure that the resources are expended efficiently and appropriate actions are taken to facilitate closure of pending issues. ABB-CEOG then provided status of six highest priority topical reports, and discussed its recommendations for further actions.

Enclosure 2 provides the view graphs used by ABB-CEOG for its presentation. Enclosure 3 provides the slides that were used by NRC for its presentation of CBLA status.

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Meeting adjourned, with both NRC and ABB-CEOG agreeing that the meeting served a very useful purpose of promoting communication between NRC and ABB-CEOG. NRC was particularly appreciative of ABB-CEOG prioritization activities and their beneficial effect on limited NRC resources.

original signed by

Jose Calvo, Assistant Director
for Region I Reactors
Division of Reactor Projects, I/II

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<i>AMC</i> TA/DRPE	DRPE/AD <i>NAT</i>				
MThadani	JCalvo				
5/27/94	5/27/94	/ /94	/ /94	/ /94	/ /94

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Jose A. Calvo
Jose Calvo, Assistant Director
for Region I Reactors
Division of Reactor Projects, I/II

COMBUSTION ENGINEERING OWNER'S GROUP MEETING
MAY 11, 1994

<u>NAME</u>	<u>ORGANIZATION</u>
Mohan Thadani	NRC
Bruce Boger	NRC
Richard Sindek	ABB-CE
Charles Frizzle	Maine Yankee
David Sager	Florida Power & Light
Brian Sheron	NRC
Raymond Burski	Energy Operations - Waterford 3
Gordon Bischoff	ABB-CE (CEOG)
Scott Newberry	NRC
Jose A. Calvo	NRC
Luis A. Reyes	NRC
Frank J. Miraglia	NRC
George C. Creel	BGE
Ross P. Barkhurst	EOI
Eric A. DeBarba	NU
Jerry W. Yelverton	EOI
James D. Alderink	CPCO
Gary Detter	BGE
Paul Hijeck	ABB-CE
Gerry van Noordennen	NU
David F. Pilmer	So. Cal Edison Co.
Ralph L. Phelps	O.P.P.D.
Keith R. Wichman	NRC
Timothy Collins	NRC
William A. Goodwin	ABB-CE
Philip Richardson	ABB-CE
Arland MacKinney	NEI
Michael Melton	Ariz. Public Service
Ed Butcher	NRC
William Beckner	NRC
S.A. Varga	NRC
M. Virgilio	NRC

CEOG/NRC MEETING

MAY 11, 1994

ENCLOSURE 2

CEOG/NRC MEETING

MAY 11, 1994

CEOG

AGENDA

1:30 pm OPENING STATEMENTS

Steven Varga (NRC)

Dave Sager (FPL)

Ray Burski (Entergy)

1:45 pm ACTIVITY REPORTS

SHUTDOWN ISSUES WORKING GROUP / Gary Detter (BG&E)

LICENSING SUBCOMMITTEE / Gerry van Noordennen (NU)

ALLOY 600 WORKING GROUP / Mike Melton (APS)

3:00 pm NRC DISCUSSION TOPICS - Staff (NRC)

3:25 pm REVIEW OF ACTION ITEMS - CEOG and NRC

3:30 pm ADJOURN

CEOG

OPENING REMARKS

- **INTRODUCTIONS**
- **MEETING OBJECTIVES**
- **REVIEW INTERACTION BETWEEN CEOG AND NRC**

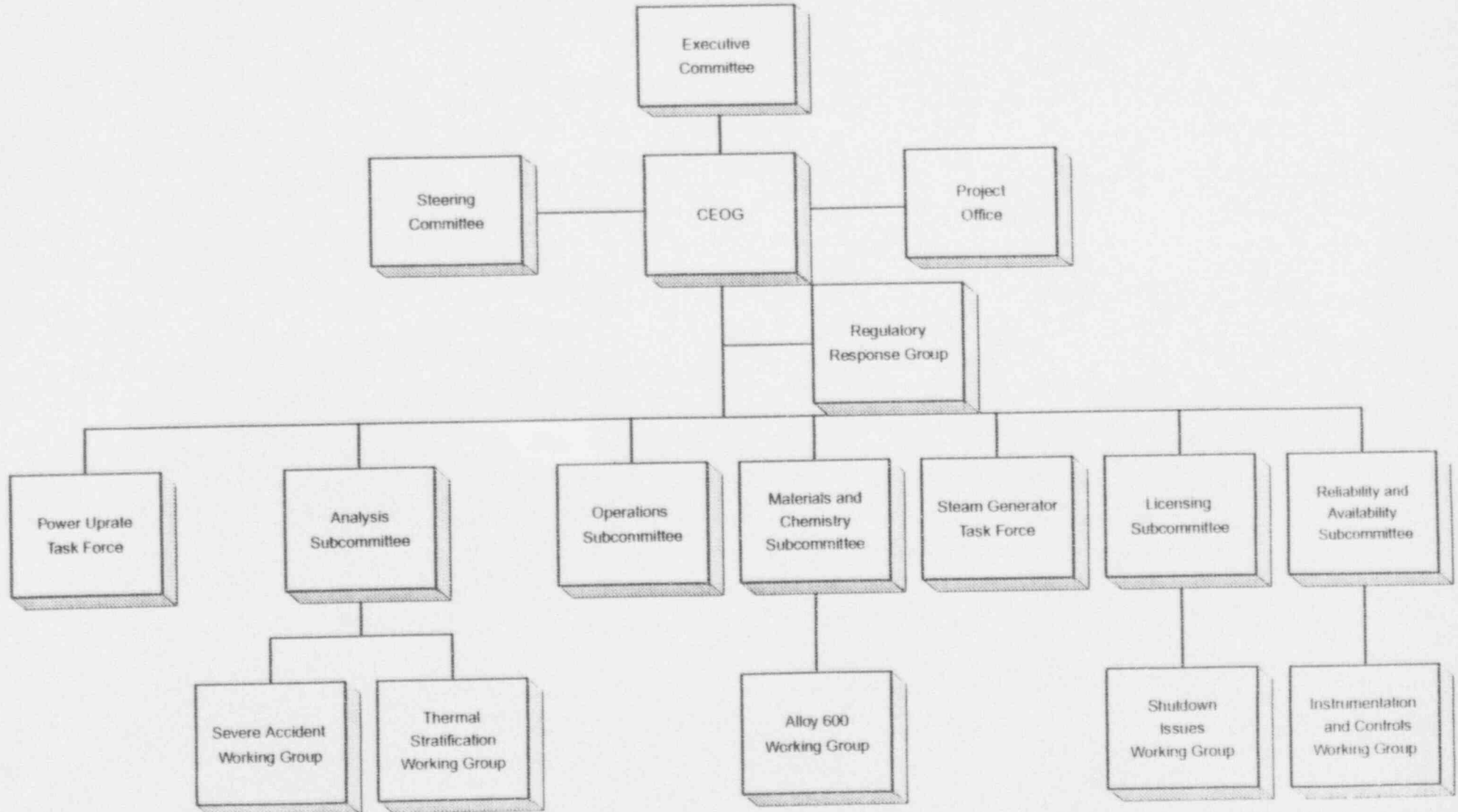
CEOG

MEETING OBJECTIVES

- **FACILITATE COMMUNICATIONS**
- **SUMMARIZE ACTIVE CEOG PROGRAMS**
- **REVIEW STATUS OF CEOG SUBMITTALS**
- **DISCUSS ISSUES OF CONCERN TO THE NRC**

CEOG

Combustion Engineering Owners Group - 1994



CEOG EXECUTIVE COMMITTEE MEMBERS

DAVE SAGER (FPL) - CHAIRMAN

CHARLES FRIZZLE (MY) - VICE CHAIRMAN

JIM LEVINE (APS)

**ROSS BARKHURST (Entergy
- WSES)**

GEORGE CREEL (BG&E)

ERIC DeBARBA (NU)

BOB FENECH (CPC)

GARY GATES (OPPD)

JERRY YELVERTON (Entergy - ANO)

DICK ROSENBLUM (SCE)

RICHARD SIUDEK (ABB)

CEOG

CEOG COMMITTEE MEMBERS

RAY BURSKI (Entergy - WSES) - CHAIRMAN **

JIM ALDERINK (CPC) - VICE CHAIRMAN **

DICK BERNIER (APS)

RIK WELLS (NU)

JIM LIPPOLD (BG&E)

RALPH PHELPS (OPPD) **

RICK ESPOLT (ENTERGY - ANO)

DAVE PILMER (SCE)

JOHN HUTCHINSON (FPL) **

JIM HEBERT (MY)

BILL GOODWIN (ABB)

**** STEERING COMMITTEE**

CEOG

C-E OWNERS GROUP MAJOR EMPHASIS FOR 1994

- **RESPOND TO NRC SAFETY CONCERNS**
- **SUPPORT NEI INITIATIVES**
- **SUPPORT LOW CEOG PLANT TRIP RATE**
- **OBTAIN NRC APPROVAL OF VARIOUS CEOG SUBMITTALS**
- **EVALUATE GENERIC IMPLICATIONS OF EMERGING ISSUES FOR CEOG PLANTS**
- **CONTINUE TO FACILITATE EFFECTIVE INDUSTRY COMMUNICATION**
- **PURSUE NEW PROGRAMS TO SHORTEN OUTAGE DURATION AND REDUCE OUTAGE RISK**
- **PURSUE NEW PROGRAMS THAT REDUCE OPERATIONS AND MAINTENANCE COSTS**

CEOG

**PRIORITY OF CEOG TOPICAL REPORTS UNDER NRC REVIEW
(IN PRIORITY ORDER)**

<u>Number</u>	<u>Title</u>	<u>Important Dates/Status</u>
CEN-420-P	<i>"Small Break LOCA Realistic Evaluation Model"</i>	Application: 3/5/93 Status: Review delayed to FY95 CEOG Priority: High Requested Action: Increase priority
CEN-403	<i>"ESFAS Subgroup Relay Test Interval Extension"</i>	Application: 7/31/91 Status: Second RAI 2/11/94 CEOG Priority: High Requested Action: (1) CEOG Respond to RAI 6/94 (2) NRC Resume Review
CEN-405 (P) Revision 2 (P)	<i>"Application of Reactor Vessel Surveillance Data of Embrittlement Management"</i>	Application: 12/6/91 Status: NRC RAI: 01/29/92. Review on hold since 08/06/93 CEOG Response CEOG Priority: High Requested Action: Resume review

CEOG

**PRIORITY OF CEOG TOPICAL REPORTS UNDER NRC REVIEW (cont)
(IN PRIORITY ORDER)**

<u>Number</u>	<u>Title</u>	<u>Important Dates/Status</u>
CEN-404	<i>"Leak-Before-Break Evaluation of Main Steam Line Piping"</i>	Application: 07/02/91 Status: Low NRC priority CEOG Priority: High Requested Action: Begin review
CEN-381-P	<i>"Low Temperature Overpressure Protection P-T Setpoints"</i>	Application: 1/12/89 Status: Review halted as result of approval of ASME XI Code Case N-514 CEOG Priority: Medium Requested Action: Issue SER
CEN-152 Revision 3	<i>"C-E Emergency Procedure Guidelines"</i>	Application: 09/18/87 Status: Review Complete CEOG Priority: Low Requested Action: Issue SER

CEOG

SHUTDOWN ISSUES WORKING GROUP

GARY DETTER (BG&E) CHAIRMAN

PRIMARY OBJECTIVE

- **SHUTDOWN RULEMAKING**

NRC CONTACT: R. JONES

- **TO WORK WITH THE NRC TO REALIZE PERFORMANCE BASED SHUTDOWN SAFETY APPROACH WITHOUT PRESCRIPTIVE REGULATION**

- **CEOG RECOGNIZES AND AGREES WITH SAFETY GOALS FOR SHUTDOWN OPERATIONS**
- **CURRENT PROPOSED APPROACH DOES NOT ACHIEVE DESIRED RESULTS FOR BOTH SAFETY AND COST EFFECTIVENESS**

CEOG

SHUTDOWN ISSUES WORKING GROUP

- **CEOG WISHES TO WORK WITH THE NRC STAFF TO STRENGTHEN AND INSTITUTIONALIZE EXISTING SAFETY PROGRAMS**
- **BOTH PERFORMANCE BASED FLEXIBILITY AND IMPROVED SAFETY ARE POSSIBLE**
- **RECOMMENDATIONS**
 - **CONSIDER INDUSTRY ACTIONS TO IMPROVE OUTAGE SAFETY**
 - **INCREASE RIGOR OF REGULATORY ANALYSIS TO SUPPORT ANY RULEMAKING**
 - **IF ADDITIONAL REGULATION IS JUSTIFIED, CONSIDER LESS PRESCRIPTIVE MEANS THAN TECHNICAL SPECIFICATIONS**

CEOG

ALLOY 600 WORKING GROUP

MIKE MELTON (APS) CHAIRMAN

PRIMARY OBJECTIVE

- **PWSCC OF ALLOY 600 CEDM PENETRATIONS**

NRC CONTACT: BOB HERMANN

- **CEOG HAS WORKED WITH NEI AHAC TO ADDRESS SAFETY SIGNIFICANCE FOR U.S. PLANTS**
 - **CEOG SAFETY EVALUATIONS, SUBMITTED TO NRC BY NEI, HAVE DEMONSTRATED THAT ID OR OD INITIATED PWSCC OF CEDM NOZZLE PENETRATIONS IS NOT AN IMMEDIATE SAFETY ISSUE**
- **THERE IS REASONABLE ASSURANCE THAT IF CRACKS DEVELOP AND PROGRESS THROUGH WALL, LEAKAGE WILL BE DETECTED BEFORE CHALLENGING CODE LIMITS ON THE VESSEL HEAD**

CEOG

ALLOY 600 WORKING GROUP (CONT)

- **PWSCC OF ALLOY 600 CEDM PENETRATIONS (CONT)**
 - **CEOG HAS SUPPORTED INDUSTRY NDE QUALIFICATION AND DEVELOPMENT OF FLAW ACCEPTANCE CRITERIA**
 - **CEOG HAS PREPARED INSPECTION GUIDELINES AND HAS EVALUATED MITIGATION AND REPAIR TECHNIQUES FOR CEOG PLANTS**
 - **INSPECTION GUIDELINES ARE BASED ON CEOG SUSCEPTIBILITY MODEL**
 - **CEOG WILL CONTINUALLY EVALUATE FINDINGS AND PROGRESS WITH RESPECT TO INSPECTION, MITIGATION AND REPAIR ISSUES**

CEOG

ALLOY 600 WORKING GROUP (CONT)

- **PWSCC OF ALLOY 600 CEDM PENETRATIONS (CONT)**
 - **CEOG AND ABB ARE DEVELOPING A WELD REPAIR CAPABILITY IN THE UNLIKELY EVENT THAT DEEP CRACKS ARE FOUND AT A CEOG PLANT**
 - **CEOG BELIEVES THAT NEI AHAC AND NRC COOPERATION HAS BEEN SUCCESSFUL IN MOVING TOWARD CLOSURE ON CEDM CRACKING**

CEOG

LICENSING SUBCOMMITTEE

GERRY VAN NOORDENNEN (NU) CHAIRMAN

PRIMARY ACTIVITIES

- **RESTRUCTURED STANDARD TECHNICAL SPECIFICATIONS**

NRC CONTACT: C. Grimes

- **SCE LEAD PLANT APPLICATION / INDUSTRY MAINTENANCE OF RSTS**

- **ESFAS SUBGROUP RELAY SURVEILLANCE TEST EXTENSION**

NRC CONTACT: J. VERMEIL

- **REVIEWING LATEST AEOD REPORT ON MDR RELAY FAILURES**
- **PROVIDE ADDITIONAL SUBMITTAL ON PROCUREMENT AND TESTING CONTROLS**

CEOG

LICENSING SUBCOMMITTEE (CONT)

- **NUREG 1366, LINE ITEM IMPROVEMENTS**
 - **RADIATION MONITOR SURVEILLANCE EXTENSION**
 - **REACTOR TRIP BREAKER SURVEILLANCE EXTENSION**

- **NATURAL CIRCULATION DECAY HEAT REMOVAL IN MODES 3 & 4**
 - **DEVELOPING JUSTIFICATIONS FOR TECHNICAL SPECIFICATION BEYOND CURRENT GUIDANCE**
 - **ESTABLISH EQUIPMENT REQUIREMENTS AND PLANT CONDITIONS**
 - **PROVIDES INCREASED SAFETY AND ECONOMIC SAVINGS**

CEOG

LICENSING SUBCOMMITTEE (CONT)

- **CREDIT FOR SOLUBLE BORON IN SPENT FUEL POOL ANALYSIS**

NRC CONTACT: L. Phillips

- **FOCUS IS ON NO REDUCTION IN SAFETY MARGIN (i.e. Maintain 5% Subcriticality Under Normal Operations)**
 - **Credit For 225 ppm Boron**
 - **SFP Normally at 1800 ppm Boron**
- **METHOD BASED UPON REVISED CRITERIA FOR ACCIDENT CONDITIONS USING FOR DRY STORAGE CRITERIA**
 - **$K_{eff} = 0.98$**
- **APPROACH DEEMED VIABLE BY NRC AT 11/94 MEETING VERSUS CREDIT FOR LARGE AMOUNTS OF SOLUBLE BORON**
- **ECONOMIC BENEFITS**

CEOG

LICENSING SUBCOMMITTEE (CONT)

- **INSTRUMENT UNCERTAINTIES IN EOPs AND TECHNICAL SPECIFICATIONS (non RPS/ESFAS)**

CEOG

OTHER CEQG ACTIVITIES

(FOR REFERENCE ONLY)

CEQG

STEAM GENERATOR TASK FORCE

- **CEOG FORMED THIS TASK FORCE IN FEBRUARY**
- **MISSION OF TASK FORCE IS TO PROACTIVELY AND AGGRESSIVELY SEEK COST EFFECTIVE SOLUTIONS TO ISSUES WHICH CHALLENGE STEAM GENERATOR SAFETY AND RELIABILITY, AND TO REDUCE ASSOCIATED PLANT CAPITAL AND O&M COSTS.**
- **AMONG ITS EARLY EFFORTS, THE TASK FORCE EXPECTS TO COMPILE A COMPREHENSIVE DATABASE OF CEOG S/G MATERIALS AND OPERATING HISTORIES**
- **THEY WILL ALSO ADDRESS ALTERNATE PLUGGING CRITERIA AS ONE OF THEIR EARLY EFFORTS**

CEOG

ANALYSIS SUBCOMMITTEE

JOE MIHALCIK (BG&E) CHAIRMAN

PRIMARY ACTIVITIES

- **SMALL BREAK LOCA MARGIN IMPROVEMENT PROGRAM**

NRC CONTACT: Frank Orr

- **GENERIC EVALUATION OF LOW UPPER SHELF ENERGY**

NRC CONTACT: Keith Wichman/ E. Hackett

- **INCORE INSTRUMENT LIFE EXTENSION**

- **CEA LIFE LIMIT CRITERIA**

CEOG

THERMAL STRATIFICATION WORKING GROUP

JEFF BROWN (APS) CHAIRMAN

PRIMARY ACTIVITIES

- **SUPPORT OF EPRI THERMAL STRATIFICATION, CYCLING AND STRIPING (TASCS) PROGRAM**
- **MODELING AND EVALUATION OF THERMAL STRESSES IN PIPING CONNECTED TO THE RCS**

NRC. CONTACT: Mark Hartzman

- **SURGE LINE DOCUMENTATION UPDATE**

CECG

SEVERE ACCIDENT WORKING GROUP

ALLAN HACKEROTT (OPPD) CHAIRMAN

PRIMARY ACTIVITIES

- **IPE APPLICATIONS**
 - **ESTABLISH FORMAT AND CONTENT FOR CEOG SUBMITTALS**
 - **INITIAL FOCUS ON DIESEL GENERATOR AND ECCS**

AOTs

STIs

CEOG

SEVERE ACCIDENT WORKING GROUP (CONT)

- **SEVERE ACCIDENT MANAGEMENT GUIDANCE (SAMG) DEVELOPMENT**

NRC CONTACT: R. Palla

- **GL 88-19, STEAM GENERATOR OVERFILL PROTECTION**

NRC CONTACT: S. Newberry/ S. Rhow

- **SEVERE ACCIDENT MANAGEMENT TRAINING**

CEOG

RELIABILITY AND AVAILABILITY SUBCOMMITTEE

LINDY BRAMLETT (ENERGY OPERATIONS - ANO), CHAIRMAN

PRIMARY ACTIVITIES

- **COMPLETED PROGRAM TO OPTIMIZE REACTOR VESSEL HEAD BOLT-UP SEQUENCE**
 - **REDUCED TENSIONING PASSES FROM 2½ TO 1¼**

- **CHARGING PUMP PACKING AND PLUNGER OPTIMIZATION PROGRAM**
 - **IN PLANT TESTING OF VARIOUS COMBINATIONS OF PACKING MATERIAL AND PLUNGER COATINGS TO DETERMINE OPTIMAL COMBINATION**

CEOG

INSTRUMENTATION AND CONTROLS WORKING GROUP

TIBBS GOLLADAY (ENERGY OPERATIONS - WATERFORD) CHAIRMAN

PRIMARY ACTIVITIES

- **PROGRAM TO ELIMINATE TIME RESPONSE TESTING REQUIREMENTS FOR CERTAIN PRESSURE AND Δ PRESSURE TRANSMITTERS**
 - **AWAITING OUTCOME OF BWROG/NRC INTERACTION**

- **CEOG, ABB, AND EPRI WORKING TO DEVELOP A PROGRAM TO ADDRESS I&C SYSTEM OBSOLESCENCE**
 - **STARTING WITH REACTOR PROTECTION SYSTEM**

CEOG

MATERIALS AND CHEMISTRY SUBCOMMITTEE

SCOTT BOGGS (FPL), CHAIRMAN

PRIMARY ACTIVITIES

- **CONTINUING CEOG PROGRAM ON CREVICE CHEMISTRY TO VALIDATE NEUTRAL CREVICE RULES DEVELOPED IN 1993**
- **REACTOR PRESSURE VESSEL EMBRITTLEMENT PROGRAM
TOPICAL REPORT: CEN-405-P**

NRC CONTACT: S. SHENG

- **DEMONSTRATING ACCEPTABLE MARGIN FOR REACTOR
VESSEL TOUGHNESS**

CEOG

MATERIALS AND CHEMISTRY SUBCOMMITTEE (CONT)

- **CEOG METHODOLOGY JUSTIFIES TWO ALTERNATIVE APPROACHES**
 - **INTEGRATED SURVEILLANCE**
 - **ADJUSTING CHEMISTRY FACTOR AND MARGIN USING DATA FROM A "HOST" C-E MANUFACTURED VESSEL CONTAINING CONTROLLING MATERIAL FROM THE SUBJECT VESSEL**
 - **MARGIN REDUCTION**
 - **ADJUSTING MARGIN USING CREDIBLE PLANT SPECIFIC DATA**
- **CEOG AWAITS NRC SER ON CEN-405-P REVISION 2-P**

CEOG

OPERATIONS SUBCOMMITTEE

JEFF WEST (FPL) CHAIRMAN

PRIMARY ACTIVITIES

- **MAINTENANCE OF EMERGENCY PROCEDURE GUIDELINES (EPG)**
- **EPG SER CLOSURE ACTIVITIES**

NRC CONTACT: Warren Lyon

- **OUTAGE IMPROVEMENTS**

CEOG

OPERATIONS SUBCOMMITTEE (CONT)

- **SIMULATOR SCENARIO CRITICAL TASKS BASED UPON EPGs**
 - **USES NUMARC/NRC APPROACH UNDERTAKEN BY OTHER OWNERS GROUPS**
 - **ESTABLISHES CONSISTENT JUSTIFICATION FOR CRITICAL TASKS**
 - **IMPROVED TRAINING**

CEOG

CBLA BACKGROUND

- April 1993 - CBLA Task Force Established
- June 1993 - Revised Priority Determination
- September 1993 - Murley Memo on CBLAs
- December 1993 - CBLA Task Force Report Issued
- February 1994 - Varga Memo on CBLA Tracking, New PA Number
- Guidance to Licensees Planned

CBLA GROUP FUNCTIONS

- Provide Focal Point - Roy Zimmerman
- Screen and Track CBLAs - Provide Reports to Russell/EDO/Commission
- Interact with TS Screening Panel - Panel to Identify Generic CBLAs
- Attend Periodic Meetings with Licensees to Discuss CBLA Programs
- Be Involved in Problem CBLA Issues

CBLA DEFINITION

- Initiated By Licensee and Identified as CBLA
- High Quality Submittal - Sufficient Basis for High Cost/Low Safety Determination
- Prioritized with All Other Licensing Actions
- Is Not Priority 1 or 2
- Result in at least \$100,000 Savings in O&M Costs and/or Capital Expenses Over Life of Plant
- May Be Generic or Plant-Specific

LICENSEE ACTIONS

- Discuss CBLA Program with NRC
- Prioritize CBLAs with Other Licensing Activities
- Work with NRC to Determine Priority Based on:
 - Degree of Difficulty
 - Regulatory Vehicle Needed (Amendment, Rulemaking)
 - Cost
- High Quality Submittals which Support High Cost/Low Safety Determination
- Include Cost Information
- No Automatic Approval for CBLA - Still Has to Meet Technical Acceptance Criteria