UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

February 22, 207

Randall K. Edington
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SUBJECT: MEETING SUMMARY - DISCUSSION OF PALO VERDE PROGRESS ON COMPONENT DESIGN BASIS REVIEW

Dear Mr. Eddington:

This refers to the management meeting conducted at the U.S. Nuclear Regulatory Commission (NRC) Region IV Office, Arlington, Texas, on February 20, 2007. The meeting attendance list and a copy of the presentations are included as Enclosures 1 and 2. No commitments were made by the licensee during the conference.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

William B. Jones, Chief
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Division of Reactor Safety

Dockets: 50-528; 50-529; 50-530
Licenses: NPF-41; NPF-51; NPF -74

Enclosures:
1. Attendance Lists
2. Presentation

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Electronic distribution by RIV:
Regional Administrator **(BSM1)**
DRP Director **(ATH)**
DRS Director **(DDC)**
DRS Deputy Director **(RJC1)**
Senior Resident Inspector **(GXW2)**
Branch Chief, DRP/D **(RLN1)**
Senior Project Engineer, DRP/D **(GEW)**
Team Leader, DRP/TSS **(FLB2)**
RITS Coordinator **(MSH3)**

SUNSI Review Completed: __Y_____ ADAMS: √ Yes☐ No Initials: __CJP____
√ Publicly Available ☐ Non-Publicly Available ☐ Sensitive √ Non-Sensitive

SRI:EB1	C:EB1			
CJPaulk/lmb	WBJones			
/RA/	/RA/			
2/22/07	2/22/07			

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

Enclosure 1

LIST OF ATTENDEES

Arizona Public Service

S. Bauer, Acting General Manager, Regulatory Affairs
G. D'Aunoy, Senior Engineer, Probabilistic Risk Assessment Section
M. Karbassian, Department Leader, Mechanical
D. Mauldin, Vice President, Engineering
R. Randels, Director, Design Engineering
B. Thiele. Site Manager, Component Design Basis Review Project

Sargent and Lundy

M. Navarro, Senior Engineer

NRC

D. Chamberlain, Director, Division of Reactor Safety
W. Jones, Chief, Engineering Branch 1, Division of Reactor Safety
J. Nadel, Reactor Inspector, Engineering Branch 1, Division of Reactor Safety
R. Nease, Chief, Projects Branch D, Division of Reactor Projects
C. Paulk, Senior Reactor Inspector, Engineering Branch 1, Division of Reactor Safety
J. Reynoso, Reactor Inspector, Engineering Branch 1, Division of Reactor Safety

Enclosure 2

Presentation

Palo Verde / NRC Meeting

Component Design Basis Review (CDBR) Project

February 20, 2007

Agenda

- Introductions and opening remarks
- Purpose of CDBR
- CDBR project scope
- CDBR organization chart
- Milestones completed
- Issues identified to date
  - Corrective Action status

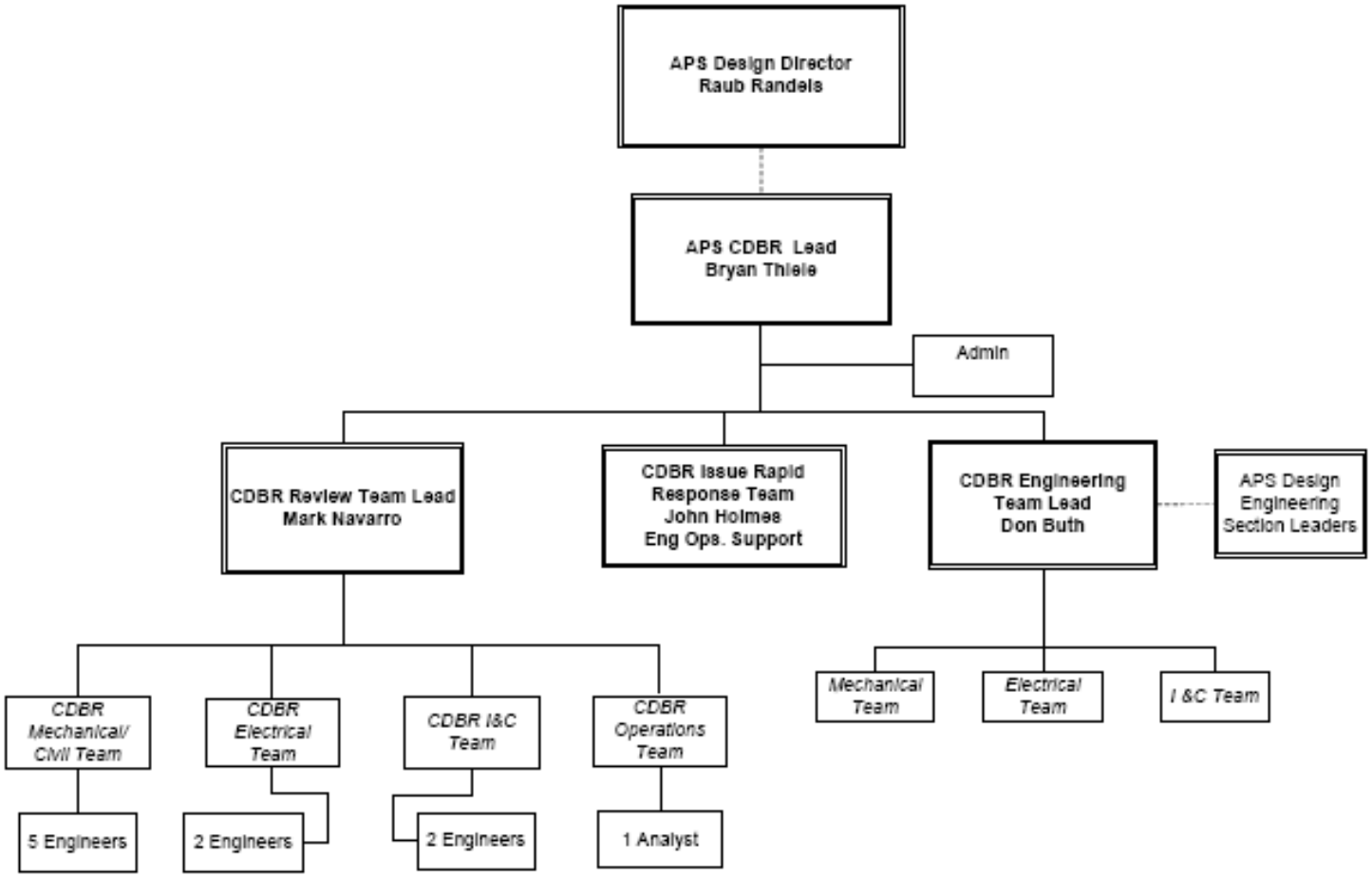
Purpose of CDBR

- Verify the Design Bases have been correctly implemented for high risk-significant components and operator actions.
- Verify the capability of these components to perform their intended safety function.
- Verify interface requirements between NSSS vendor and Architect-Engineer are correct, complete and appropriately incorporated into Design Bases.

CDBR Project Scope

1. High-risk component Design Basis review
2. NSSS to BOP interface verification
3. Design Basis calculation re-verification
4. Industry Operating Experience reviews
5. Margin management program development
6. Design Basis Manual completion
7. Design / licensing document update

CDBR Organization



CDBR Project Deliverables

- Component summary reports
- Updated Design Basis Manuals
- CRDRs, CRDR evaluations and corrective actions
- Trending of issues identified
- Updated/new calculations
- UFSAR licensing document change requests
- Margin management procedure
- Margin management metrics

Phase 1 Milestones

- **Evaluate 3 PILOT components**
  - Status: completed 11/03/06
- **PRA to identify high-risk components/operator actions**
  - Status: completed 11/15/06
- **Identification of 20 low-margin components/6 low-margin operator actions**
  - Status: completed 12/01/06
- **Safety analysis provides list of credited operator actions**
  - Status: completed 1/5/07
- **Evaluation of 20 low-margin, high-risk components, 6 operator actions and 4 to 6 Significant Operating Experiences**
  - Status: Due 02/28/07 (on schedule)

20 High-Risk, Low-Margin Components

AFW PUMP B	HPSI PUMP A
CONDENSATE STORAGE TANK	CONTAINMENT SPRAY PUMP A
BATTERY A	ATMOSPHERIC DUMP VALVE 179
GAS TURBINE GENERATOR NO. 1	S/G #2 STEAM SUPPLY TO AFA-P01 BYPASS VALVE
SPRAY POND PUMP MOTOR A	S/G #2 STEAM SUPPLY TO AFA-P01
SPRAY POND PUMP SLAVE RELAY	CLASS 1E 4KV BUS 1E-PBB-S04
CKTBRK AUX FDW ISO VLVPUMP B TO SG-1	DG B OUTPUT BREAKER
EMERGENCY DIESEL GENERATOR B	CONTROL ELEMENT DRIVE MECHANISM
K204 RELAY (LOAD SHED 2)	REFUELING WATER TANK
LOP/LS CONTROL LOGIC	LPSI PUMP A

Phase 2

- Evaluate high-risk components system-by-system
  - Begin with Auxiliary Feedwater (AF), then Safety Injection (SI)
- Perform interface requirement verification and calculation reverification in parallel with component evaluations for AF and SI
- Revise calculations and Design Basis Manual

Phase 2

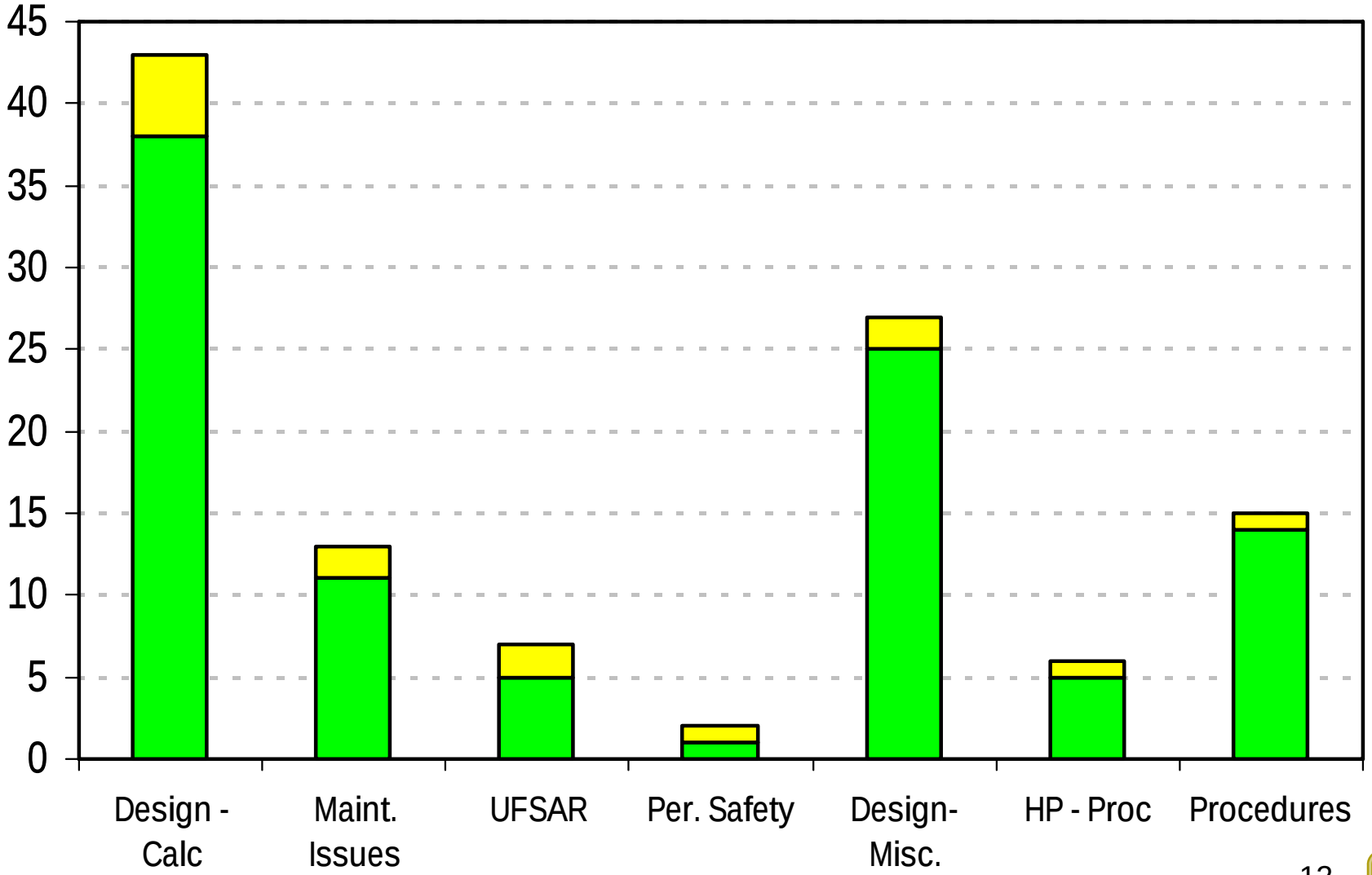
- Develop screening criteria for evaluating similar components
- Develop detailed schedule for evaluating high-risk/shutdown/external event components
- Complete project in 3 to 4 years

Identification and Resolution of Project Issues

- Identify issues per CDBR procedure
- Use Palo Verde Action Request (PVAR) process
- Review potential degraded/nonconforming conditions with Rapid Response Team, including Operations
  - Use Operability Determination process as necessary

113 CRDRs/PVARs as of 2/16/07

Yellow = ODs/Functional Assessments/Personnel Safety



Noteworthy CRDRs/PVARs

- **7 Operability Determinations**
  - Class battery voltage > 140 Vdc
  - ADV nitrogen line had extra fitting installed
  - ADV nitrogen accumulator capacity
  - LPSI and Containment Spray (CS) room heat loads
  - CS motor oil leakage
  - CS calculation discrepancies (2)
- **4 Functional Assessments**
  - AF room drain line check valve debris
  - DG fuel oil cross-connect line
  - GTG starting diesel fuel oil requirements
  - GTG aligned to class bus in >1 hour (simulation)

CRDR/CRAIs Status

February 16, 2007

- 113 PVARs generated
  - 125 CRDR Action Items (CRAIs)
  - 39 PVARs being dispositioned (identify action items)
  - 11 Corrective Maintenance Work Orders (CMWOs)
- 56 CRAIs completed
- 5 CMWOs completed