



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

May 9, 2006

Charles D. Naslund, Senior Vice
President and Chief Nuclear Officer
Union Electric Company
P.O. Box 620
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SUBJECT: MEETING SUMMARY FOR END-OF-CYCLE PERFORMANCE ASSESSMENT

Dear Mr. Naslund:

This refers to the end-of-cycle performance assessment meeting conducted at the Capitol Plaza Hotel and Convention Center, Jefferson City, Missouri, on May 4, 2006. Topics discussed during the meeting included the Reactor Oversight Process and the safety performance at Callaway Plant. The meeting attendance list and a copy of the slides presented during the meeting are included as Enclosures 1, 2, and 3.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be made 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).

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

William B. Jones, Chief
Project Branch B
Division of Reactor Projects

Docket: 50-483
License: NPF-30

Enclosures:

1. Meeting Attendance List
2. NRC Presentation
3. Callaway Plant Presentation

cc w/enclosures:

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 RITS Coordinator (KEG)

SUNSI Review Completed: ADAMS: Yes No Initials:
 Publicly Available Non-Publicly Available Sensitive Non-Sensitive

R:\ REACTORS\EOC and Midcycle\EOC Meeting Summaries\Held in 2006\CW5-04-06MS-EOC.wpd

RIV/SPE/DRP/B	C/DRP/B			
RAKopriva;df	WBJones			
<i>[Signature]</i>	<i>[Signature]</i>			
5/09/06	5/09/06			

OFFICIAL RECORD COPY

T=Telephone

E=E-mail

F=Fax

END-OF-CYCLE MEETING ATTENDANCE

LICENSEE/FACILITY	AMEREN UE / Callaway Plant
DATE/TIME	May 4, 2006 / 6:30 PM - 9:00 PM
LOCATION	Capitol Plaza Hotel and Convention Center 415 North McCarty Street Jefferson City, Missouri
NAME (PLEASE PRINT)	ORGANIZATION
MARK REIDMEYER	STARS
STEVE CRAWFORD	Ameren UE / Callaway
Edward S. Braz	State Emergency Management Agency
Keith Young	Ameren UE / Callaway
David Sheffer	Ameren UE / Callaway
Rick Eastman	Ameren UE / Callaway
TIM HERRMANN	AMEREN UE / CALLAWAY
JOHN CAMPBELL	MO STATE EMERGENCY MGT AGENCY
IDA HOFFMANN	ICRCG
FRAN BOULT	II
Pamela Murray	City of Holts Summit
Charles Naslund	Ameren UE
LUDWIG THIBAUT	AUE

END-OF-CYCLE MEETING ATTENDANCE

LICENSEE/FACILITY	AMEREN UE / Callaway Plant
DATE/TIME	May 4, 2006 / 6:30 PM - 9:00 PM
LOCATION	Capitol Plaza Hotel and Convention Center 415 North McCarty Street Jefferson City, Missouri
NAME (PLEASE PRINT)	ORGANIZATION
Adam Heflin	Ameren UE
Floyd Gilzow	Mo Dept of Natural Resources
FADI DIYA	AMEREN UE
Michael Cleary	Ameren Services
David Hopkins	Ameren UE
Luke Grassle	Ameren UE
Eric Olson	Ameren UE
Valerie Miller	Public
Bob Miller	Ameren UE
TOD MOSER	AMEREN UE
Steve Petzel	"
Ron Lamb	Ameren UE
Rosella Schad	Self

Callaway Plant Annual Assessment Meeting

Reactor Oversight Program - CY 2005



Nuclear Regulatory Commission - Region IV

Arlington, Texas

May 4, 2006

Purpose of Today's Meeting

A public forum for discussion of Callaway performance:

- NRC will address performance issues identified in the 2005 Annual Assessment Letter
- Ameren UE will be given the opportunity to respond to plant performance issues:
 - Inform the NRC of new or existing programs to maintain or improve performance and
 - Discussion of the Callaway Performance Improvement Plan addressing a substantive cross-cutting issue

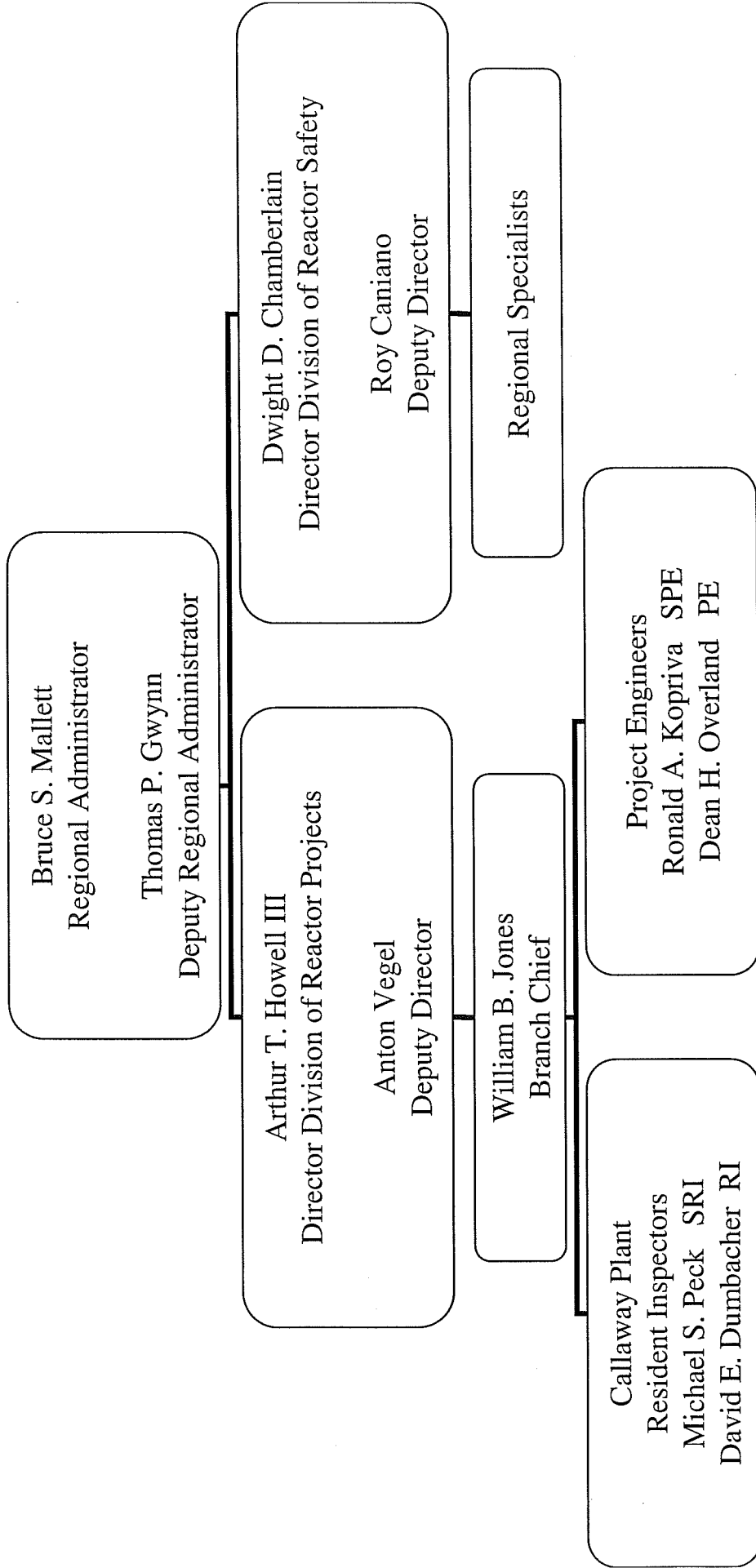
Agenda

- Introduction
- Review of Reactor Oversight Process
- National Summary of Plant Performance
- Discussion of Plant Performance Results
- Licensee Response and Remarks
- NRC Closing Remarks
- NRC available to address public questions

NRC Representatives

- Arthur T. Howell III, Division Director
- (817) 860-8291
- William B. Jones, Branch Chief
- (817) 860-8141
- Michael S. Peck, Senior Resident Inspector
- (573) 676-3181
- David E. Dumbacher, Resident Inspector
- (573) 676-3181
- Victor Dricks, Public Affairs Officer
- (800) 952-9677

Region IV Organization



Callaway Plant Performance

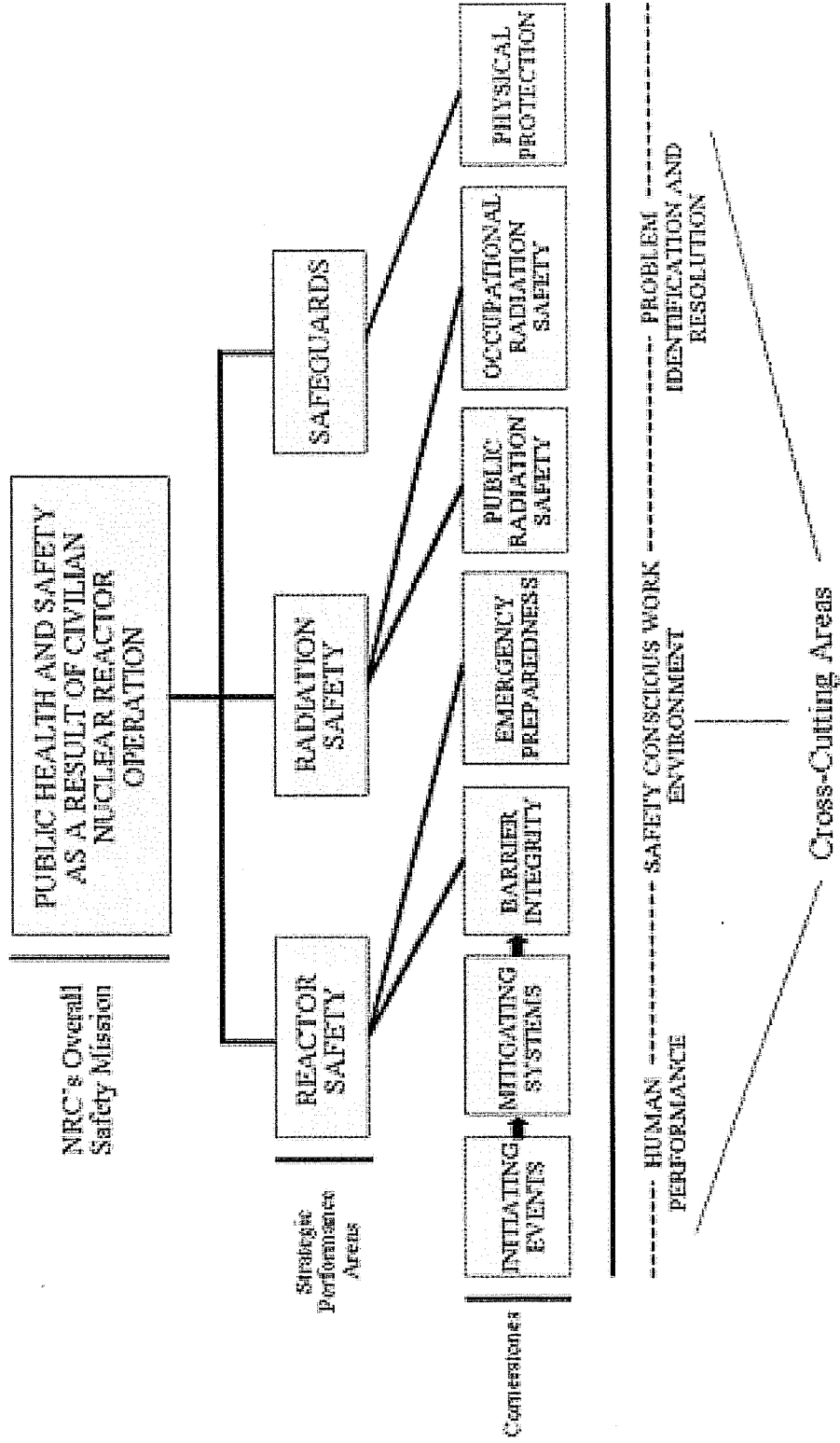
Michael Peck
Senior Resident Inspector

NRC Performance Goals

- Safety: Ensure protection of the public health and safety and the environment
- Security: Ensure the secure use and management of radioactive materials
- Openness: Ensure openness in our regulatory process
- Effectiveness: Ensure that NRC actions are effective, efficient, realistic, and timely
- Management: Ensure excellence in agency management to carry out the NRC strategic objectives

Reactor Oversight Process

REGULATORY FRAMEWORK



Examples of Baseline Inspections

- *Equipment Alignment* ~80 hrs/yr
- *Triennial Fire Protection* ~200 hrs/3 yrs
- *Operator Response* ~125 hrs/yr
- *Emergency Preparedness* ~80 hrs/yr
- *Radiation Release Controls* ~110 hrs/2 yrs
- *Worker Radiation Protection* ~90 hrs/yr
- *Corrective Action Program* ~250 hrs/2 yrs
- *Corrective Action Case Reviews* ~60 hrs/yr

Significance Threshold

Performance Indicators

- Green:** Only Baseline Inspection
- White:** May increase NRC oversight
- Yellow:** Requires more NRC oversight
- Red:** Requires more NRC oversight

Inspection Findings

- Green:** Very low safety significance issue
- White:** Low to moderate safety significance issue
- Yellow:** Substantial safety significance issue
- Red:** High safety significance issue

National Summary

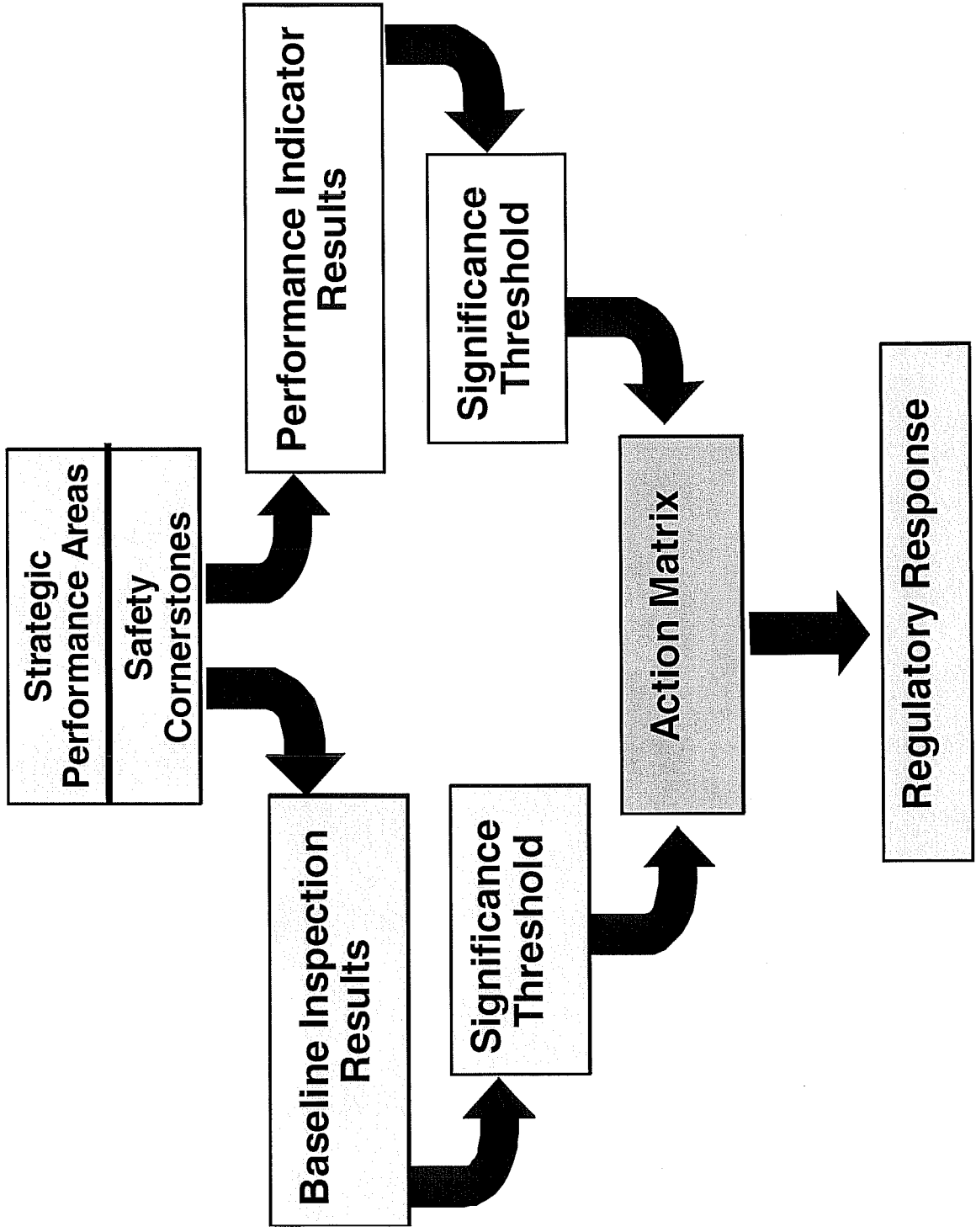
● Performance Indicator Results (4th Qtr-CY 2005)

- Green 1850
- White 4
- Yellow 0
- Red 0

● Total Inspection Findings (CY 2005)

- Green 849
- White 10
- Yellow 1
- Red 0

Reactor Oversight Process



Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
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Increasing Safety Significance

Increasing NRC Inspection Efforts

Increasing NRC/Licensee Management Involvement

Increasing Regulatory Actions

National Summary of Plant Performance

Status at End of CY 2005

Licensee Response	84
Regulatory Response	12
Degraded Cornerstone	4
Multiple/Repetitive Degraded Cornerstone	3
Unacceptable	0
	<hr/>
Total	103

Cross-Cutting Areas

- Human Performance
- Problem Identification and Resolution
- Safety Conscious Work Environment

Criteria for identifying a Substantive Cross-Cutting Issue

- Multiple green or safety significant inspection findings with cross-cutting aspects
- Common theme for causal factors
- Continued concern with the licensee's progress in addressing cross-cutting performance

Callaway Plant Inspection Activities

(January 1 – December 31, 2005)

- Regional Inspection Hours (includes hours charged to the licensee for direct inspection, office preparation, and documentation)
 - Division of Reactor Projects 2677 hours
 - Division of Reactor Safety 1828 hours

Callaway Plant Inspection Activities

(January 1 – December 31, 2005)

- **Baseline Inspection Program**
- **Radiation Safety Team Inspection**
- **Refueling Outage/Steam Generator Replacement Inspections**

Callaway Plant Inspection Activities

(January 1 – December 31, 2005)

Two Temporary Instruction Inspections:

- **TI-160, ‘Pressurizer Penetration Nozzles and Steam Space Piping Connections in U.S. Pressurized Water Reactors’**
- **TI-163, ‘Operational Readiness of Offsite Power’**

Safety Significant Findings or PIs

- All Inspection Findings were of Very Low Safety Significance (Green)
- All Performance Indicators were Green

Callaway Assessment Results

(January 1 – December 31, 2005)

- Ameren UE operated Callaway in a manner that preserved public health and safety and met all cornerstone objectives
- The Callaway Plant was within the Licensee Response Column of the Action Matrix
- Substantive Cross-Cutting Issue in Human Performance

NRC Identified a Substantive Cross-cutting Issue in Human Performance During the Past 2004 Assessment

- Based on the review of Green inspection findings, with some related to a White performance indicator in Initiating Events
- Common theme related to procedure compliance resulting in challenges to plant equipment

Substantive Cross-Cutting Issue Remained Open at the End of 2005

- Ameren UE actions resulted in a decrease in human performance related plant challenges during 2005
- The NRC continued to identify Green findings associated with human performance:
 - Findings associated with procedural and instruction adequacy
 - Past corrective actions have not been fully effective to prevent human performance errors

Human Performance Cross-Cutting Issue Continued Through 2005

- The NRC continued to identify Green findings associated with human performance:
 - Additional attention needed to address the underlying causes
 - NRC will continue to monitor progress during baseline inspections

2006 Planned Inspection Activities

- Baseline Inspection Program, including
 - Component Design Bases Inspection
 - Problem Identification and Resolution
 - Emergency Preparedness
 - Triennial Fire Protection
 - Occupational Radiation Protection

Callaway Plant Response

**Mr. Charles Naslund
Senior Vice President and Chief Nuclear Officer
Union Electric Company**

Contacting the NRC

- Report an emergency
 - ▶ (301) 816-5100 (call collect)
- Report a safety concern:
 - ▶ (800) 695-7403
 - ▶ Allegation@nrc.gov
- General information or questions
 - ▶ www.nrc.gov
 - ▶ Select “What We Do” for Public Affairs
 - ▶ Victor Dricks, Public Affairs Officer (800) 952-9677

Reference Sources

- Reactor Oversight Process
 - ▶ <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>
- Public Electronic Reading Room
 - ▶ <http://www.nrc.gov/reading-rm.html>
- Public Document Room
 - ▶ 1-800-397-4209 (Toll Free)



ENCLOSURE 3

NRC Public Meeting

2005 Annual Assessment
AmerenUE Response

C. D. Naslund

Sr. Vice President & Chief Nuclear Officer



Callaway Team

- Chuck Naslund – Senior VP and Chief Nuclear Officer
- Adam Heflin – VP, Nuclear
- Tim Herrmann – VP, Engineering
- Ludwig Thibault – Director, Plant Operations



Summary

- We concur with the NRC's assessment of Callaway's performance.
 - Actions have been and are being taken to address the issues.
- Callaway will continue to operate in a manner that preserves public health and safety.
- Callaway's performance improved in 2005.



Substantive Cross-Cutting Issue

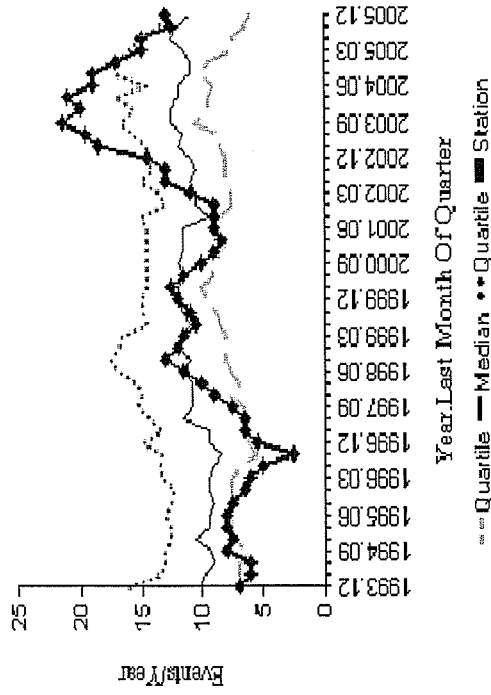
- Human Performance Substantive Cross-Cutting Issue Remains Open
 - The number of findings related to procedure compliance during 2005 is lower
 - Significance of these findings is lower
 - Actions taken to address procedure compliance issues have resulted in significant improvements
 - Continued emphasis on procedure quality



Substantive Cross-Cutting Issue

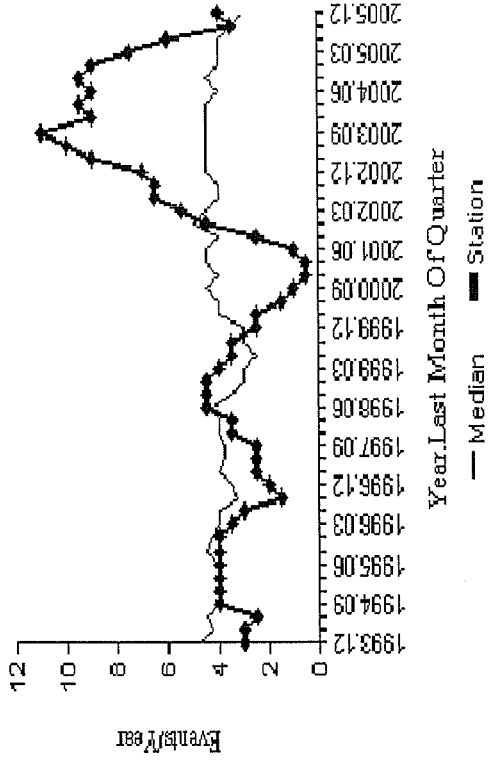
Procedure Related Events

Two Year Rolling Average



Human Performance Events

Two Year Rolling Average



- Our performance has improved

- No significant events

- Performed Refuel 14 Safely

- *No Lost Time Accidents in over 2 years*

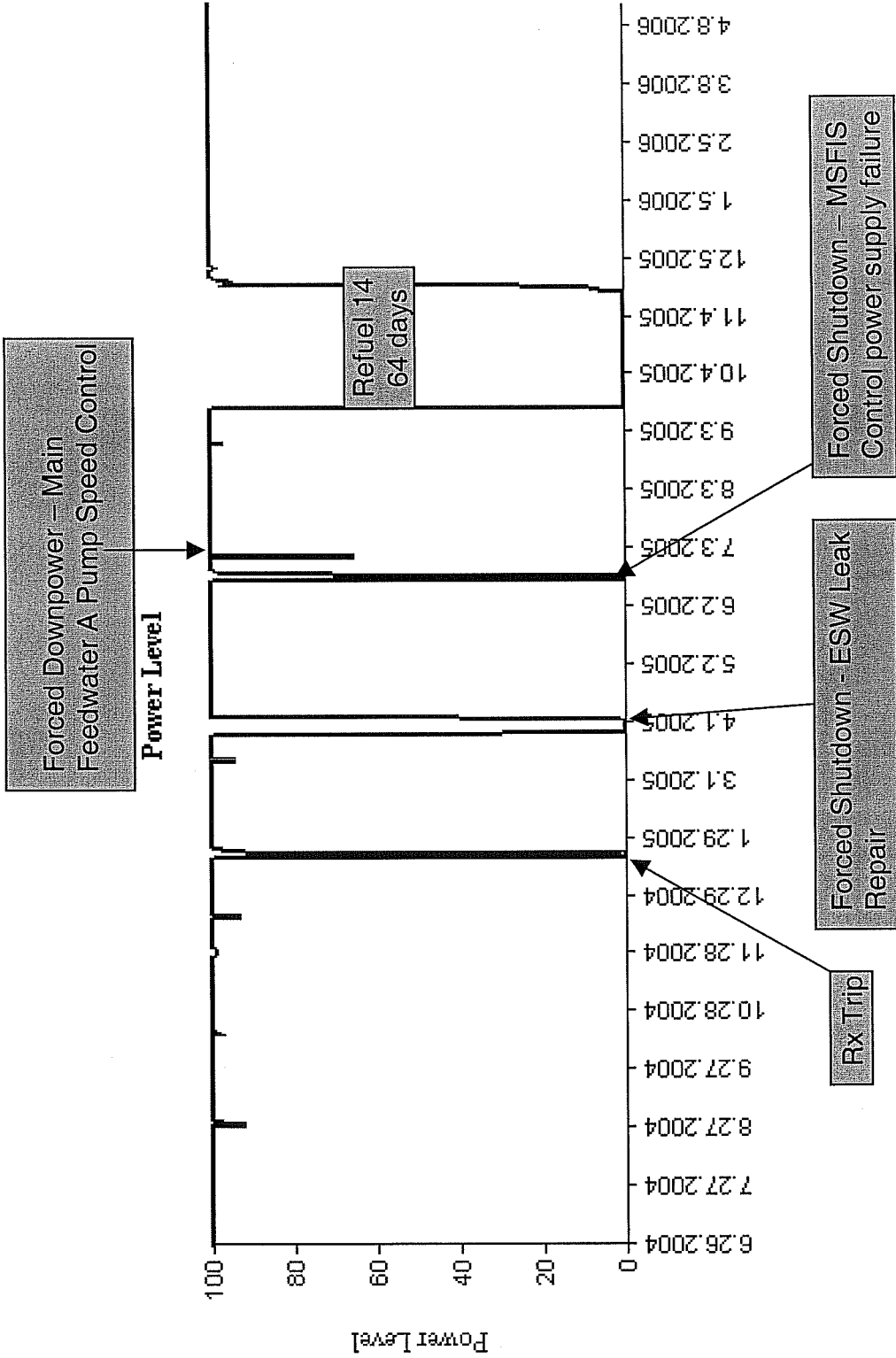


Substantive Cross-Cutting Issue

- Work environment that strives to be error free
 - Defense in Depth
 - Strong Training & Qualification Programs
 - Supervision Reinforce Standards
 - Quality Oversight
- Callaway is safe
- *We still have room to improve*



Daily Average Power





Refuel Outage 14

- No Lost time injuries
- Record outage
- 4 new steam generators / new turbine rotors
- Design objectives met
- On budget and schedule
- Added 60 MWe

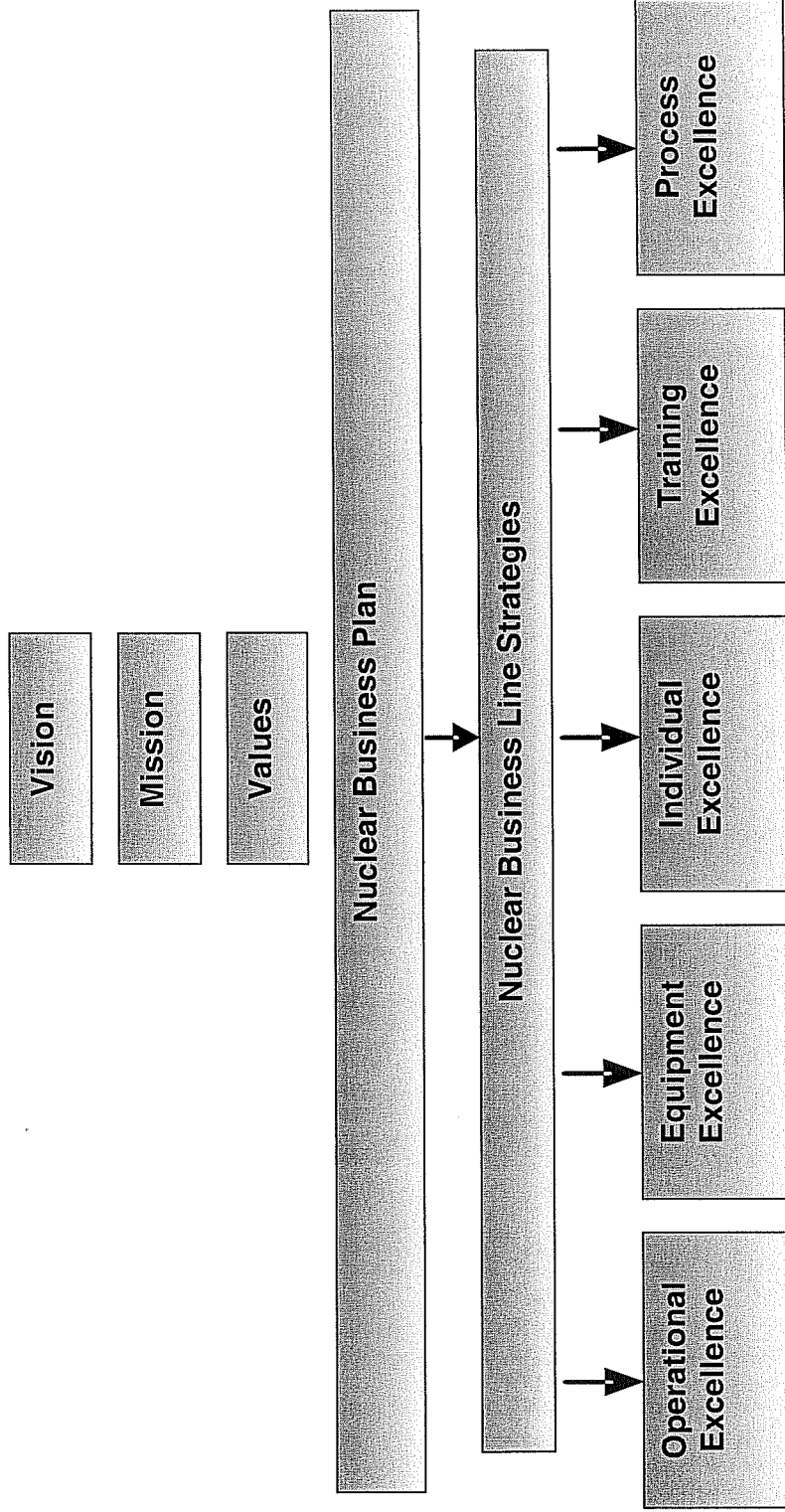


Going Forward

- Business plan is guiding performance improvement.
- Excellence strategies :
 - Operational
 - Equipment
 - Individual
 - Training
 - Process
- Objective: Sustained Performance Improvement



Five Excellence Strategies





Our Mission:
To Safely, Reliably, and Efficiently
Generate Electricity

Our Vision:
To be THE Performance Leader in
the Nuclear Industry