



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

July 9, 2003

Clay C. Warren, Vice President of  
Nuclear Energy  
Nebraska Public Power District  
P.O. Box 98  
Brownville, Nebraska 68321

SUBJECT: SUMMARY OF CONFIRMATORY ACTION LETTER QUARTERLY INSPECTION  
EXIT MEETING WITH NEBRASKA PUBLIC POWER DISTRICT REGARDING  
COOPER NUCLEAR STATION

Dear Mr. Warren:

This refers to the meeting conducted at the Brownville Concert Hall, Brownville, Nebraska, on July 1, 2003. The purpose of this meeting was to present the results of the NRC's Confirmatory Action Letter quarterly inspection conducted at the Cooper Nuclear Station of the Nebraska Public Power District. The attendance list and the NRC's and Nebraska Public Power District's presentation slides are enclosed.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures 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,

A handwritten signature in black ink, reading "Kriss M. Kennedy", is positioned above the typed name.

Kriss M. Kennedy, Chief  
Project Branch C  
Division of Reactor Projects

Docket: 50-298  
License: DPR-46

Enclosures:

1. Attendance List
2. NRC Presentation Slides
3. NPPD Presentation Slides

cc:

Thomas J. Palmisano  
Site Vice President  
Nebraska Public Power District  
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Brownville, Nebraska 68321

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Nemaha County Board of Commissioners  
Nemaha County Courthouse  
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Jerry Uhlmann, Director  
State Emergency Management Agency  
P.O. Box 116  
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Nebraska Public Power District

-3-

Vick L. Cooper, Chief  
Radiation Control Program, RCP  
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and Environment  
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Daniel K. McGhee  
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Iowa Department of Public Health  
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Des Moines, Iowa 50309

William J. Fehrman, President  
and Chief Executive Officer  
Nebraska Public Power District  
1414 15th Street  
Columbus, Nebraska 68601

Electronic distribution by RIV:

Acting Regional Administrator (TPG)

DRP Director (ATH)

Acting DRS Director (ATG)

Senior Resident Inspector (SCS)

Branch Chief, DRP/C (KMK)

Senior Project Engineer, DRP/C (WCW)

Staff Chief, DRP/TSS (PHH)

RITS Coordinator (NBH)

Jim Isom, Pilot Plant Program (JAI)

RidsNrrDipmLipb

ADAMS: ☒ Yes ☐ No Initials: KMK  
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive

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RIV SPE DRP/C	C DRP/C			
WCWalker:df	KMKennedy			
<u>KMK</u>	<u>KMK</u>			
7/9/03	7/9/03			

OFFICIAL RECORD COPY

T=Telephone

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ENCLOSURE 1

## ATTENDANCE LIST

# NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	July 1, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
WAYNE WALKER	US NRC - RIV
Kriss Kennedy	US NRC
JODIE RIDEN	NPPD
Art Howell	US NRC - RIV
GARY KLINE	NPPD
Jim Sumpter	NPPD
John Christensen	NPPD
Bill Fehrmann	NPPD
VICTOR DRICKS	NRC
Ken Carcos	ERIN ENGINEERING
Xiang Zou	ERIN ENGINEERING
Jon Schwarz	NEBRASKA EMERGENCY MANAGEMENT AGENCY
Dennis Colsden	" " "

# NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	July 1, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
DAVID MEYERS	NPPD
Joe Bedner	NPPD
Rick Remmers	NPPD
Tim Chard	NPPD
DAVID KROX	NPPD
DENNIS RASMUSSEN	NPPD DIRECTOR
Miles Stauffer	NPPD
Marvin Rief	NPPD
Mike Boyce	NPPD
Kip Kirkland	NPPD
Byron Day	NMC
ROMAN ESTRADA	NPPD
Ed McCutchen	NPPD

# NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	July 1, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
Trent Nelson	NE City News-Press
David Konsemler	NPPD -
Dave Byrdy	NPPD
Paul Gritton	"
PIERRE F. INGOLD	CONSULTANT
KIM LIEBIG	NPPD
Paul Gritton	consultant
Wm MacCewell	NPPD
Deb Stemple	NPPD
Bob Engler	City of Auburn
George Levy	NPPD



ENCLOSURE 2

## NRC PRESENTATION SLIDES

## **U.S. Nuclear Regulatory Commission**

### **Region IV**

#### **Cooper Nuclear Station Inspection Exit Meeting**

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## **NRC Personnel**

**Art Howell**     **Director**  
Division of Reactor Projects

**Kriss Kennedy**   **Chief, Branch C**  
Division of Reactor Projects

**Wayne Walker**   **Senior Project Engineer, Branch C**  
Division of Reactor Projects

**Scott Schwind**   **Senior Resident Inspector**  
Cooper Nuclear Station

**Victor Dricks**     **Public Affairs Officer**  
Region IV

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## **Nebraska Public Power District**

#### **Cooper Nuclear Station Introduction**

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## **Meeting Guidelines**

**Purpose of Meeting - Inform Public  
of Inspection Findings**

**Meeting with Licensee**

**Answer questions from audience**

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## **Meeting Guidelines**

**Registration Table**

**Questions and Answers**

**Handouts**

**Feedback Forms**

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## **Meeting Agenda**

**Provisions of Confirmatory Action Letter (CAL)  
and The Strategic Improvement Plan (TIP)**

**Inspection Scope**

**Inspection Findings**

**Nebraska Public Power District Response**

**Questions and Answers**

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## **Inspection Team**

- Wayne Walker-Team Leader
- Jeff Cruz-Resident Inspector
- Paul Elkmann-EP Specialist
- Leonard Willoughby-Resident Inspector

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## **Confirmatory Action Letter**

- Emergency Preparedness
- Human Performance
- Material Condition and Equipment Reliability
- Plant Modifications and Configuration Control
- Corrective Action Program, Utilization of Industry Operating Experience, and Self-Assessments
- Implementation of Engineering Programs

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## **CAL Assessment Process**

- NRC Baseline inspections
- NRC performance indicators
- CAL quarterly inspections
- Licensee performance indicators and performance measures

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## **Inspection Scope**

- Five of Six CAL Focus Areas
- Completed Revision 2 actions
- Performance Indicators
- Issues Identified in First Quarterly CAL Inspection, February 2003

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## **Inspection Results**

- Team reviewed 54 of 263 Revision 2 improvement plan actions
- 103 Strategic Improvement Plan actions completed as scheduled and reviewed
- 54 actions reviewed were completed as described in the Strategic Improvement Plan
- A number of the important actions in the Action Plans covered by the CAL remain to be completed


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## **Quality of Improvement Plan Closure Packages**

- Closure packages were considered complete
  - some minor discrepancies noted

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### **Effectiveness of Corrective Actions for Emergency Preparedness Performance Areas**

- CAL item to conduct a self assessment was completed
- Issues identified during April 2002 supplemental inspection were adequately addressed
- Corrective actions for performance deficiencies were effective based on
  - Baseline inspection
  - Quarterly CAL inspection
  - Performance indicators associated with emergency preparedness

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### **Evaluation of Human Performance**

- 10 CAL related improvement plan actions reviewed and completed
- Team noted little improvement in human performance

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### **Evaluation of Human Performance**

(continued)

- 3 of 4 performance indicators demonstrating unsatisfactory performance as defined by NPPD
  - Qualification matrix adherence
  - Human performance event free days
  - Overtime (%hours) year to date
- Baseline inspection findings
- Additional actions needed to address lack of improvement in human performance


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### **Material Condition and Equipment Reliability**

- 25 CAL related improvement plan actions completed as scheduled
- Actions implemented have not resulted in satisfactory performance indicator results in most areas
  - Unplanned entry into limiting conditions of operation
  - Overdue preventive maintenance


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### **Material Condition and Equipment Reliability (continued)**

- 48 completed actions constitute initial foundation for improvement
  - most of the actions completed delivered development of a plan or procurement funding toward equipment improvements

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### **Material Condition and Equipment Reliability (continued)**

- Potential violation in area of preventive maintenance and corrective action
  - failure to complete preventive maintenance feedback evaluations
  - failure to enter all examples into corrective action program

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## **Plant Modifications and Configuration Control**

- 25 CAL improvement plan actions completed as scheduled
- 3 of 5 performance indicators were unsatisfactory (however 2 had improving trends)
  - Reactor oversight program index
  - Long term caution orders
  - Modification closeout backlog
- Engineering inspection May 2003 did not identify any significant issues in this area

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## **Corrective Action Program, Utilization of Industry Operating Experience and Self-Assessment**

- 15 CAL improvement plan actions completed as scheduled
- 2 of 5 performance indicators demonstrated unsatisfactory performance
  - Timeliness of response to industry issues
  - Timeliness of corrective actions
- Comprehensive corrective action program inspection scheduled for September 2003

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## **Engineering Programs**

- No new CAL actions completed since last inspection
- 1 performance indicator unsatisfactory-overdue preventive maintenance
- 1 performance indicator not meeting goal-engineering program health

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## **Conclusions**

- CAL actions completed on schedule
- In area of emergency preparedness corrective actions for performance deficiencies were effective
- Assessment to date indicates a lack of significant progress in improving human performance
- Too early in implementation process to assess overall effectiveness of the remaining areas

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## **Nebraska Public Power District**

### **Response**

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## **U.S. Nuclear Regulatory Commission**

### **Region IV**

### **Cooper Nuclear Station Inspection Exit Meeting**

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ENCLOSURE 3

## NPPD PRESENTATION SLIDES

## 2<sup>nd</sup> Quarter TIP Inspection NRC Public Meeting

Cooper Nuclear Station  
July 1, 2003



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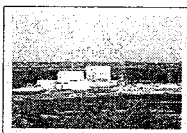
## Agenda

- |  |                  |
|--|------------------|
| ♦ Opening Remarks                          | Tom Palmisano    |
| ♦ Inspection Results & Overall Performance | Tom Palmisano    |
| ♦ Human Performance                        | John Christensen |
| ♦ Equipment Reliability                    | Gary Kline       |
| ♦ Program Improvements                     | Gary Kline       |
| ♦ Closing Remarks                          | Tom Palmisano    |

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## Inspection Results & Overall Performance

Tom Palmisano  
Site Vice President



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## Inspection Results

- ♦ Agree with the results
- ♦ Addressing the potential NCV
- ♦ CNS recognizes importance of cross cutting Focus Areas
- ♦ Improved Emergency Preparedness Program
- ♦ Improved Closure Packages

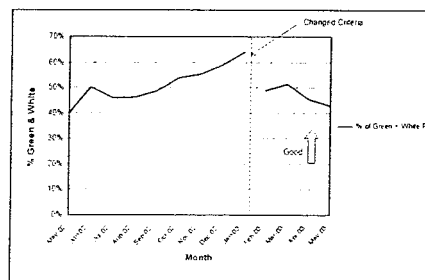
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## Overall Performance

- ♦ Not satisfied with progress
- ♦ Overall CAP performance adequate
  - Some areas improving
  - Others need further improvement
- ♦ 3 Assessments completed by August
  - Anticipate progress in several areas
  - Assessment data expected to lead PIs

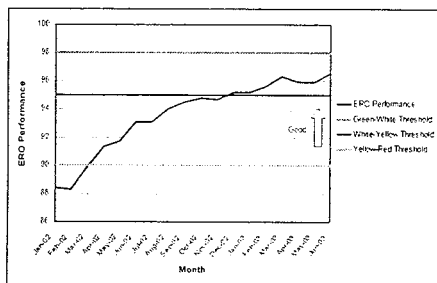
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## Pillar PI Trend



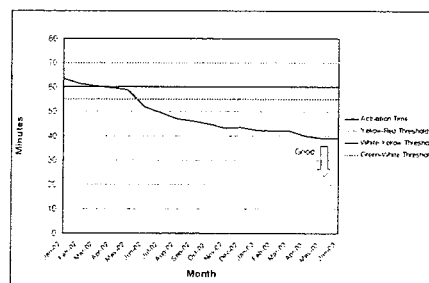
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## ERO Performance



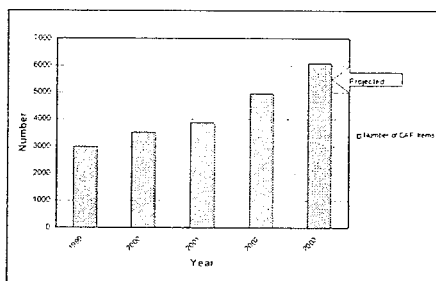
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## ERO Staff Augmentation Time



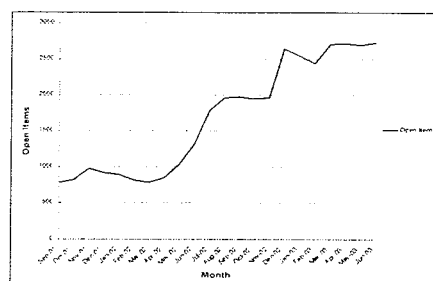
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## Condition Report Generation Rate



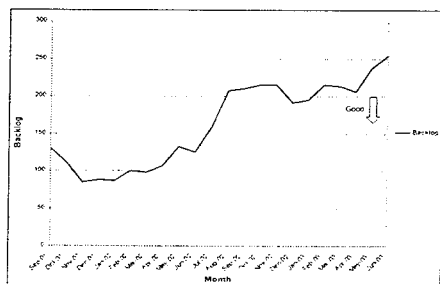
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## CAP Open Items



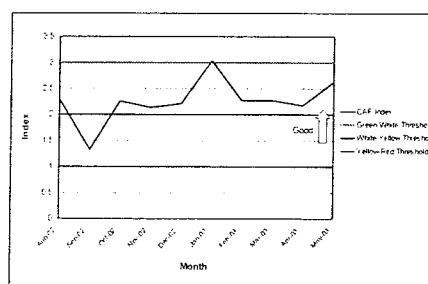
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## CAP Backlog



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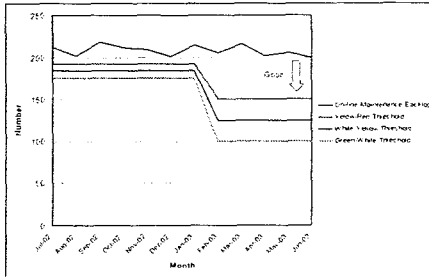
## CAP Performance Index



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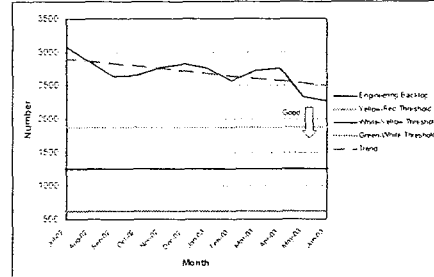


## On-line Maintenance Backlog



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## Engineering Backlog



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## USA Safety Culture Assessment

- ◆ Team concluded Cooper safety culture is healthy (four strengths)
- ◆ Many of the weaknesses center around Equipment Reliability & Work Management
- ◆ Cooper findings not a significant outlier
- ◆ Team confirmed TIP Plan addresses majority of the weaknesses

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## Human Performance

John Christensen  
Plant Manager



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## Human Performance

- ◆ Recent CNS Performance Issues
- ◆ CNS Current Performance
- ◆ Current Actions
- ◆ Conclusion

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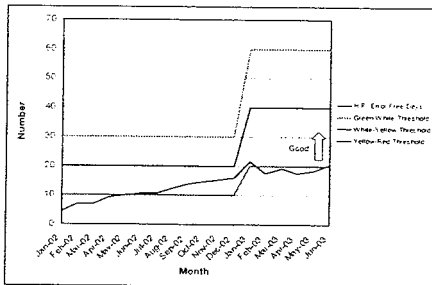
## Recent CNS Performance Issues

- ◆ Several Performance Issues During RE-21
- ◆ Related to Peer and Self-Checking
  - Site Stand Downs
  - Focused training on standards
  - Increased management focus
  - Peer checker population reduced

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## CNS Current Performance

### Station Human Performance Event Free Clock



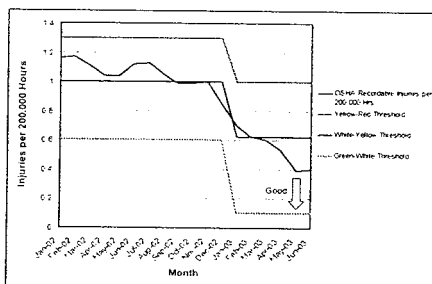
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## Current Actions

- ◆ Increased focus on Organization, Job Site Conditions, and Leadership
- ◆ Recent and In-process Changes:
  - Work Management Improvements
  - Pre-job, Post-job Briefs
  - Procedure Use and Adherence
  - Coaching
- ◆ Precursor Performance Indicators
  - OSHA Recordable Injury Rate
  - Operator Distractions (previously Operator Challenges)
  - Control Room Deficiencies

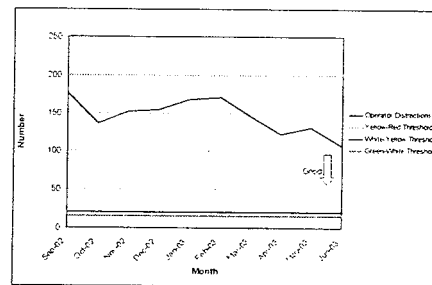
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## OSHA Recordable Injury Rate



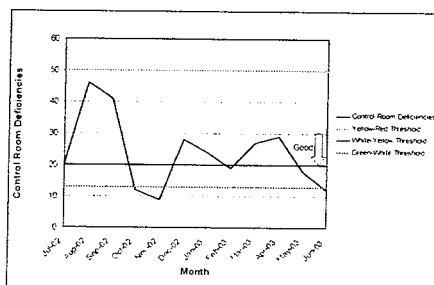
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## Operator Distractions



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## Control Room Deficiencies



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## Conclusion

- ◆ Additional improvements will be seen with continued focus.

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## Equipment Reliability

Gary Kline  
General Manager,  
Engineering



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## Equipment Reliability

- ◆ Multifaceted approach
  - Known equipment issues in TIP
  - Emergent and other known equipment issues
  - Accelerated schedules where feasible
  - Fundamentals and infrastructure
  - Programs
- ◆ Known issues prioritized and scheduled

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## TIP Equipment Improvements

- ◆ Service Water
- ◆ Feedwater
  - Digital Speed Control
  - Reactor Feed Startup Valves
- ◆ Switchyard
- ◆ Service Water Radiation Monitors
- ◆ Feedwater Check Valves
- ◆ Torus/Drywell Vacuum Breakers

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## Additional Progress on Other Equipment

- ◆ Circulating Water System Valves
- ◆ Intermediate Range Monitors
- ◆ 250V Battery Cell Replacement
- ◆ Condensate Demineralizers
- ◆ >200 Valves in Refueling Outage 21
- ◆ DEH Power Supply
- ◆ Feedwater Heater Instrumentation
- ◆ Feedwater Temperature Operating Band

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## Accelerating Schedules Where Feasible

- ◆ Reactor Vessel Level Setpoint
- ◆ Isophase Bus Duct
- ◆ Governor Valve Springs
- ◆ Diesel Fuel Oil Storage Tank
- ◆ Reactor Water Cleanup System
  - Valves and demineralizer
  - Demineralizer flow controller
- ◆ Main Condenser Hotwells
- ◆ Steam Condensing Modification

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## Fundamentals and Infrastructure

- |   |               |
|---|---------------|
| ◆ Equipment Reliability Organization    | – Complete    |
| ◆ Plant Health Committee                | – Complete    |
| ◆ System Health Report Process          | – Complete    |
| ◆ AP913 Processes Established           | – 12/31/03    |
| – PM Optimization                       |               |
| – Predictive Maintenance                |               |
| – Identification of Critical Components |               |
| – Long-range System Plans               |               |
| ◆ Equipment Strategic Planning Process  | – In Progress |
| ◆ Root Cause Effectiveness              | – In Progress |
| ◆ Roles and Responsibilities            | – In Progress |

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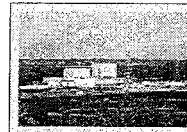
## Program Improvements

- ◆ Defined key programs
- ◆ Set standards for programs
  - Monitoring
  - Maintaining
- ◆ Improved use of Performance Indicators
- Strengthening staff skills and depth

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## Closing Remarks

Tom Palmisano  
Site Vice President



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