



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

November 7, 2003

Clay C. Warren, Chief Nuclear Officer
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

SUBJECT: SUMMARY OF 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 November 4, 2003. The purpose of this meeting was to present the results of the NRC's third quarterly inspection of Cooper Nuclear Station's actions associated with the Confirmatory Action Letter issued on January 30, 2003, and the Biennial Problem Identification and Resolution inspection conducted at the Cooper Nuclear Station. 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,

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

Chief, Radiation and Asbestos
Control Section
Kansas Department of Health
and Environment
Bureau of Air and Radiation
1000 SW Jackson, Suite 310
Topeka, KS 66612-1366

Daniel K. McGhee
Bureau of Radiological Health
Iowa Department of Public Health
401 SW 7th Street, Suite D
Des Moines, IA 50309

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

Electronic distribution by RIV:

Regional Administrator (**BSM1**)DRP Director (**ATH**)Acting DRS Director (**DDC**)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**Anne Boland, OEDO RIV Coordinator (**ATB**)CNS Site Secretary (**SLN**)

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

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RIV: SPE: DRP/C	C: DRP/C			
WCWalker;df	KMKennedy			
<i>WCWalker</i>	<i>KMK</i>			
11/06/03	11/7/03			

OFFICIAL RECORD COPY

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ENCLOSURE 1

ATTENDANCE LIST

NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	November 4, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
WAYNE C. WALKER	US NRC - RIV
PAUL V. FLEMING	NPPD
CLAY C. WARREN	NPPD
ETHEL R. RICHARDS	NPPD
Dennis Colson	NEMA
JONATHAN SCHWARZ	NEMA
Deb Stemple	NPPD-CNS
JIM SUMPTER	NPPD-CNS
Kim Dahlberg	NPPD
Jim Webster	NPPD
ROMAN ESTRADA	NPPD
RICHARD COOPER	CONSULTANT
LISA EDWARDS	NPPD

NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	November 4, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
Jeff Edwards	NPPD
Meshele Boruch	NPPD
George Dyer	Polestar
Mike Boyce	NPPD
Bill Sedar	NPPD
DAVID MONTGOMERY	NPPD
Jim Flaherty	NPPD
Ralph Hernandez	EMPYREAN
MARGA COULTER	NPPD
Mike Coulter	guest
KEVIN CHAMBLISS	NPPD
Trent Nelson	News-Press
Byron Day	NMC

NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	November 4, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
Steve + Marilyn Liberta	NPPD
John C. McClure	NPPD
John Cassmeyer	NPPD
Jim Dykstra	NPPD
John Michael DeBartolo	NPPD
PRISCILLA DeBartolo	AUBURN
SCOTT DIERBERGER	NPPD
John L. Marburger	Omaha, NE
CARL MARKERT	NPPD
Stu Wentworth	Entergy
Kriss Kennedy	NRC
Art Howell	NRC
Greg Werner	NRC

NRC PUBLIC MEETING ATTENDANCE

LICENSEE/FACILITY	Nebraska Public Power District Cooper Nuclear Station
DATE/TIME	November 4, 2003; 7:00 p.m.
LOCATION	Brownville Concert Hall, Brownville, Nebraska
NAME (PLEASE PRINT)	ORGANIZATION
Jim DeFram	Nebraska Health & Human Services
Marty Prystupa	NPPD
Anthony Gody	NRC - REGION IV
Joe Bednor	NPPD
Tim Chard	NPPD
Sharon Brown	NPPD
CINDY KRUGER	NPPD
DAVE COOK	NPPD
PIERRE F. INGOLD	CONSULTANT
Roger Goos	Nemaha Co. Emergency
Jim Gerwech	Richardson Co. EMA director
TODD E. HOTTOVY	NPPD
Darrell Wellman	Auburn Newspapers

ENCLOSURE 2

NRC PRESENTATION SLIDES

U.S. Nuclear Regulatory Commission

Region IV

Cooper Nuclear Station

Exit Meeting

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NRC Personnel

Art Howell	Director, Division of Reactor Projects
Kriss Kennedy	Chief, Branch C, Division of Reactor Projects
Anthony Gody	Chief, Operations Branch, Division of Reactor Safety
Greg Werner	Senior Operations Engineer, Operations Branch, Division of Reactor Safety
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

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Meeting Guidelines

Registration Table

Questions and Answers

Handouts

Feedback Forms

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Meeting Agenda

Inspection Summary

Confirmatory Action Letter Inspection

**Identification and Resolution of Problems
Inspection**

Nebraska Public Power District Response

Questions and Answers

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Inspection Summary

- The confirmatory action letter inspection allows the NRC to assess the effectiveness of the Cooper Strategic Improvement Plan to address degraded performance.
- The identification and resolution inspection allows the NRC to evaluate the effectiveness of the Cooper corrective action program to detect and correct problems in a manner that limits risk to members of the public.

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Inspection Summary (Cont)

- Progress is being made in each CAL area, but either additional efforts or time is needed especially in the area of human performance and equipment reliability.
- Issues adequately identified, but problems persist with the evaluation of issues and effectiveness of corrective actions.
- 6 Potential Violations of low safety significance

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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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Confirmatory Action Letter Inspection Scope

- Six CAL Focus Areas
- NRC and Cooper Performance Indicators
- NRC Baseline Inspections
- Issues Identified in the 2nd Quarterly CAL Inspection, June 2003
- Cooper Audits and Self Assessments

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Confirmatory Action Letter Inspection Results

- Team reviewed 52 improvement plan actions.
- 50 of 52 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 have been implemented.
- Overall, 157 of 263 Strategic Improvement Plan actions reviewed.

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Quality of Improvement Plan Closure Packages

- Closure packages were complete with two exceptions noted.
- Some minor discrepancies noted

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Emergency Preparedness

- Improvement Plan Actions addressed in CAL completed and previously inspected (June 2003)
- Performance indicators
- Baseline inspections

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Evaluation of Human Performance

- Five CAL related improvement plan actions reviewed and completed.
- Efforts to improve performance have been less than fully effective. However, some improvements noted.
- Baseline inspections

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Evaluation of Human Performance (cont)

- 4 of 6 performance indicators reviewed by the team did not meet goals or were unsatisfactory.
 - Human Performance Event
 - Human Performance Error Rate
 - Qualification Matrix Adherence
 - Overtime (%hours) Year to Date
- 2 of 6 performance indicators meeting goals
 - Configuration Control Events
 - OSHA Recordable Injury Rate

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Evaluation of Human Performance (cont)

- Self assessments
- Additional actions are needed to improve and maintain performance.
- Improvements are in the process of being implemented.

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Material Condition and Equipment Reliability

- 35 of 37 improvement plan actions were completed as scheduled.
- Actions implemented have not resulted in satisfactory performance.
- Several examples of challenges to plant and equipment reliability

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Material Condition and Equipment Reliability (cont)

- Actions completed to date have provided the necessary processes or actions for improvement.
 - Numerous equipment improvements have recently been completed.
 - Additional time is needed to bring about improvement.

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Plant Modifications and Configuration Control

- 3 actions were completed as scheduled.
- Baseline inspections
- Performance indicators
- Engineering Inspection May 2003 did not identify any significant issues.
- Additional time is needed to bring about improvement.

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

- 7 actions completed as scheduled.
- Issues adequately identified, but problems persist with the evaluation of issues and effectiveness of corrective actions.
- Baseline inspections
- Self Assessments were thorough and self-critical.
- Industry operating experience
- Performance indicators

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Engineering Programs

- One action completed as scheduled.
- Performance indicators not meeting goals.
- Baseline inspections
- Additional time is needed to bring about improvement.


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Confirmatory Action Letter Inspection Conclusions

- Most improvement plan actions were completed on schedule.
- Progress is being made in each CAL area.
 - Additional actions appear to be necessary in the human performance area.
 - More time is necessary to demonstrate improved equipment reliability.

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Identification and Resolution of Problems Inspection

Introduction - Anthony Gody

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Identification and Resolution of Problems Inspection (Cont)

Evaluated Areas

- 1) Effectiveness of problem identification
- 2) Effectiveness of prioritization and evaluation of issues
- 3) Effectiveness of corrective actions
- 4) Assessment of safety-conscious work environment

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Effectiveness of Problem Identification - Assessment

- Problems were adequately identified and entered into the corrective action program -some exceptions noted.
 - Operator work arounds
 - Aging Agastat relays -Potential Criterion XVI Violation
- Previous inspections also determined problems were adequately identified.
- Plant personnel had low thresholds for entering problems into the corrective action program.


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Effectiveness of Prioritization and Evaluation of Issues - Assessment

- Problems with prioritization and evaluation of issues.
- Two evaluations failed to identify the apparent cause of the events.
 - RCR 2003-0979
 - RCR 2003-0428


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Effectiveness of Prioritization and Evaluation of Issues - Assessment (Cont)

- Two examples of not performing operability determinations when required - Potential T.S. 5.4.1 Violation
- 17 examples of failure to follow preventive maintenance procedures - Potential T.S. 5.4.1 Violation


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Effectiveness of Prioritization and Evaluation of Issues - Assessment (Cont)

- The quality of root cause determinations were good.
- Significant improvement in the ownership and knowledge of the condition review group and the corrective action review board.


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Effectiveness of Corrective Actions - Assessment

- Majority of conditions adverse to quality were effectively resolved. Some exceptions were noted.
 - Fire protection modifications not actively pursued
 - Service air compressor preventive maintenance not performed
 - Aging Agastat relay replaced with a relay of the same age - Potential Criterion XVI violation

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Effectiveness of Corrective Actions - Assessment (Cont)

- Continued problems with operability determinations - Potential Criterion XVI violation

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Safety-Conscious Work Environment - Assessment

- Employees were willing to identify safety issues through either the corrective action program or the employee concerns program.

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Identification and Resolution of Problems Conclusions

- All potential violations have either been corrected or placed into the corrective action program.
- All potential violations are of low safety significance.
- Issues adequately identified, but problems persist with the evaluation of issues and effectiveness of corrective actions.

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Other Finding

- Potential Appendix B, Criterion III, design control violation for an unauthorized modification to the Zurn strainer controllers.

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Nebraska Public Power District

Response

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U.S. Nuclear Regulatory Commission

Region IV

Closing Comments

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U.S. Nuclear Regulatory Commission

Region IV

Question and Answer Session

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U.S. Nuclear Regulatory Commission

Region IV



Conclusion of the Cooper Nuclear Station Exit Meeting

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ENCLOSURE 3

NPPD PRESENTATION SLIDES

PI & R / 3rd Quarter TIP Inspection NRC Public Meeting

Cooper Nuclear Station
November 4, 2003



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Agenda

- | | |
|--|------------------|
| ♦ Opening Remarks | Stu Minahan |
| ♦ Inspection Results & Overall Performance | Stu Minahan |
| ♦ Human Performance | Stu Minahan |
| ♦ Corrective Action Program | John Christensen |
| ♦ Equipment Reliability & Program Improvements | Gary Kline |
| ♦ Closing Remarks | Stu Minahan |

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Inspection Results & Overall Performance

Stu Minahan
Acting Site Vice President



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Inspection Results

- ♦ CNS generally agrees with the results
- ♦ CNS concurs with the potential NCVs
- ♦ CNS recognizes importance of cross-cutting focus areas
- ♦ Actions have been taken, or in progress, to address these issues

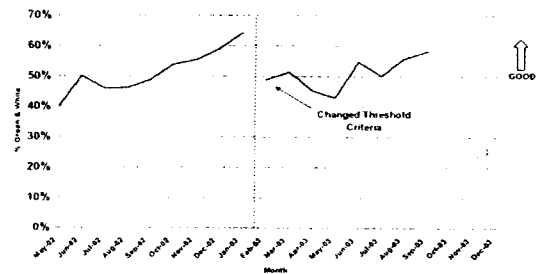
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Overall Performance

- ◆ Plant Performance
 - Recent forced outage
 - Planned power reductions to correct equipment issues
- ◆ Working toward changing attitudes concerning plant and personnel performance

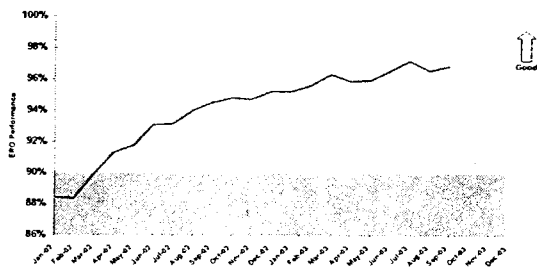
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Pillar PI Trend



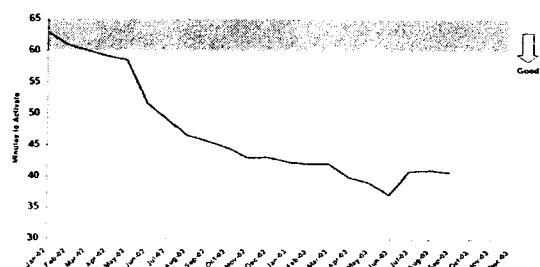
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ERO Performance



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ERO Staff Augmentation Time



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Human Performance

Stu Minahan
Acting Site Vice President



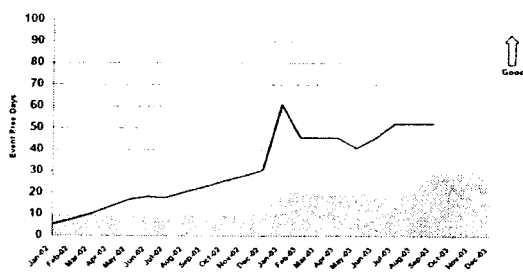
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Human Performance

- ◆ Accelerating improvement efforts
- ◆ Implementing changes and tools
- ◆ Realizing changing trends in the positive direction

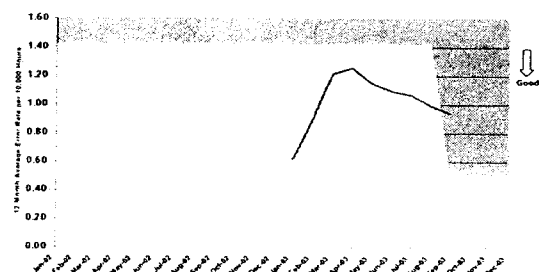
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Human Performance Event Free Days



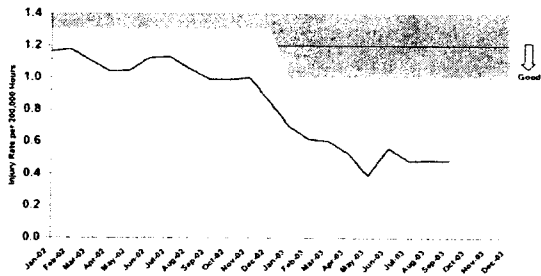
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Human Performance Error Rate



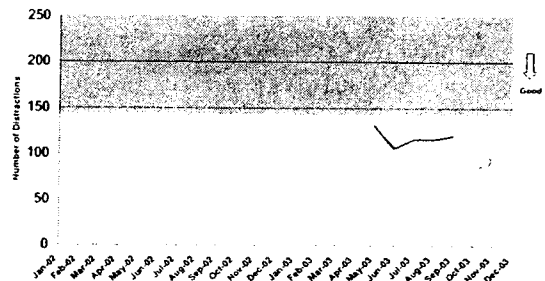
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OSHA Recordable Injury Rate



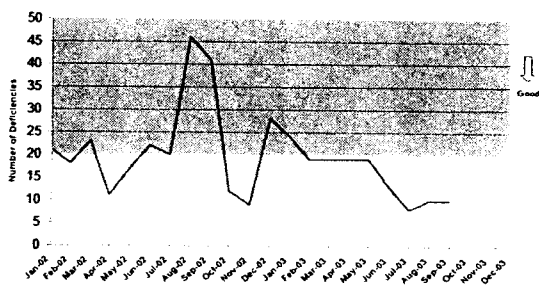
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Operator Distractions



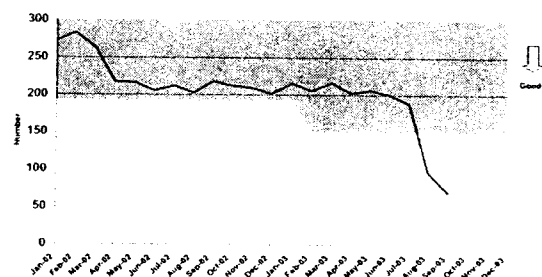
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Control Room Deficiencies



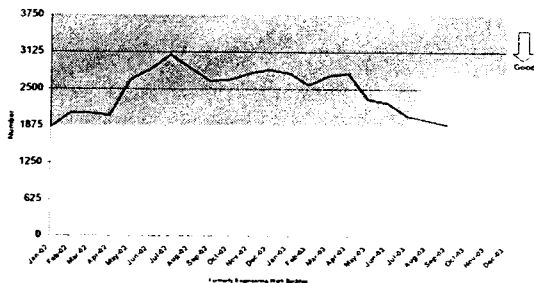
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On-line Maintenance Backlog



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Engineering Inventory



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Human Performance Going Forward

- ♦ Increased focus on management observations and coaching
- ♦ Increase in dedicated resources
- ♦ Implementation of integrated Human Performance Trainer
 - Multi-faceted – Safety, chemistry, radiation protection, human performance traps, procedure usage, ...
- ♦ Long term evolution of Trainer

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Conclusion

- ♦ Will continue to be one of the critical management focus areas
- ♦ Maturing Human Performance Trainer
- ♦ Focus on upcoming refuel outage
- ♦ Future assessments

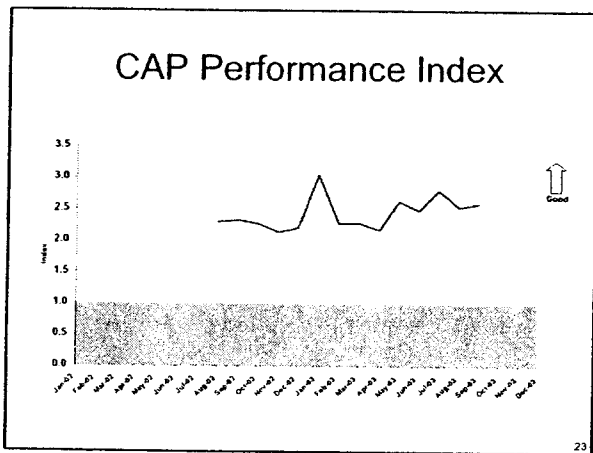
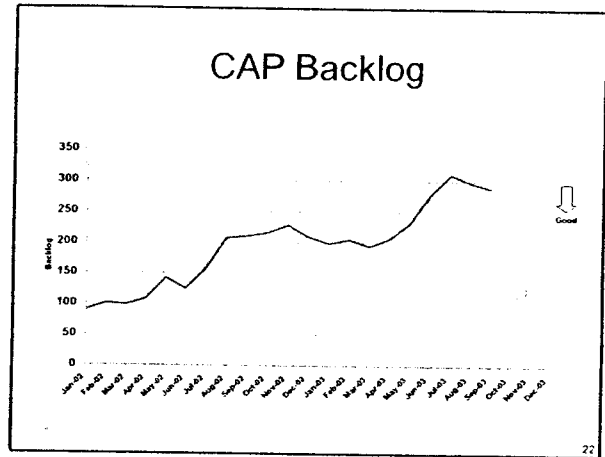
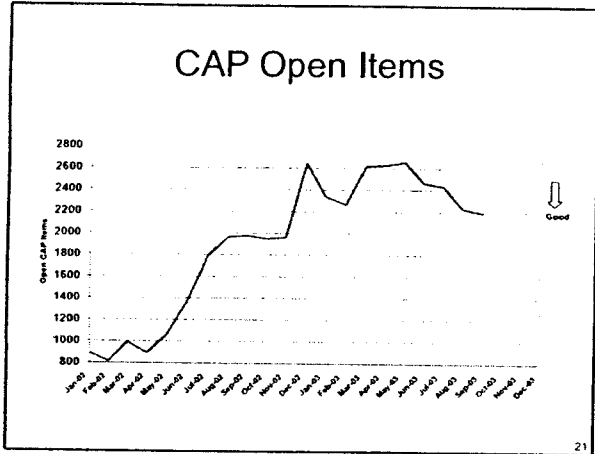
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Corrective Action Program

John Christensen
Plant Manager

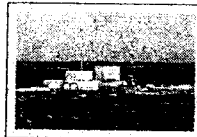


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Equipment Reliability & Program Improvements

Gary Kline
General Manager,
Engineering



Equipment Reliability

- ◆ Building the Foundation
- ◆ Successes
- ◆ Challenges

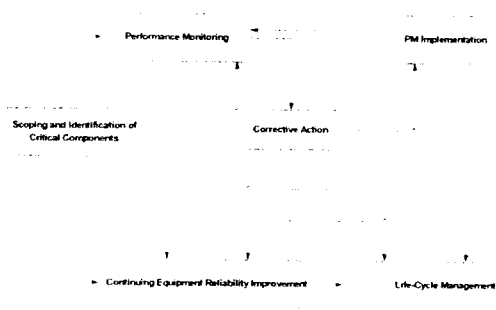
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Building the Foundation

- ◆ Equipment Reliability Process
- ◆ Plant Health Committee
- ◆ System Engineering Roles and Responsibilities
- ◆ Trending / Monitoring Focus
- ◆ Top 10 Alignment
- ◆ Training

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Equipment Reliability Process



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Building the Foundation (cont.)

- ◆ Plant Health Committee
 - Management Alignment
 - Interfacing with System Engineers
 - Key Focus Areas

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Building the Foundation (cont.)

- ◆ System Engineering Roles and Responsibilities
 - Realignment of Priorities
 - INPO Assist Visit

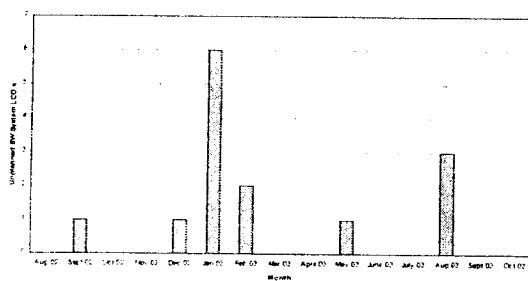
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Building the Foundation (cont.)

- ◆ Trending / Monitoring Focus
 - Proactive Engineering
 - Improvements

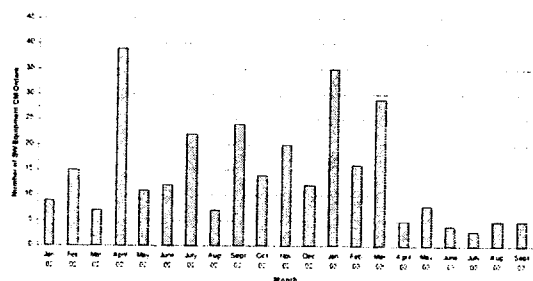
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Unplanned SW System LCO's



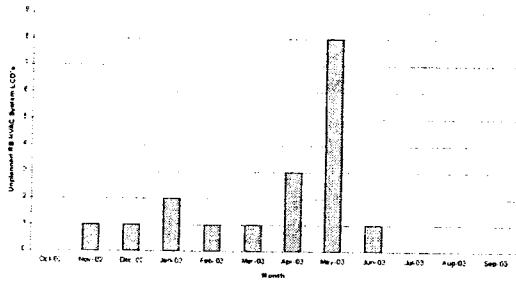
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New SW System Equipment Related CM Orders



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Unplanned RB HVAC System LCO's



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Building the Foundation (cont.)

- ♦ Top 10 Alignment
 - New Initiative
 - Managed List

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Building the Foundation (cont.)

- ♦ Training
 - Upgrade to improve Engineering Performance
 - Emphasis on Plant reliability

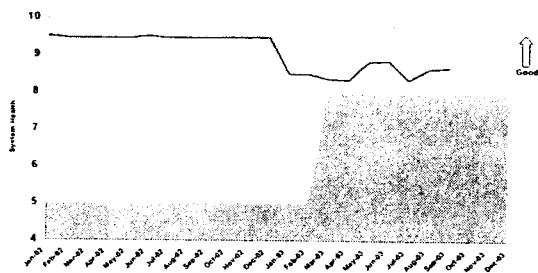
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Successes

- ♦ Overall System Health
- ♦ Mitigation of Missouri River Level Changes
- ♦ Scram Solenoid Pilot Valves
- ♦ Diesel Generator Connecting Rod

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System Health



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Successes (cont.)

- ◆ Mitigation of Missouri River Level Changes
- ◆ Scram Solenoid Pilot Valves
- ◆ Diesel Generator Connecting Rod

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Challenges

- ◆ Material Condition Balance of Plant
- ◆ Change Management
- ◆ Workload Management

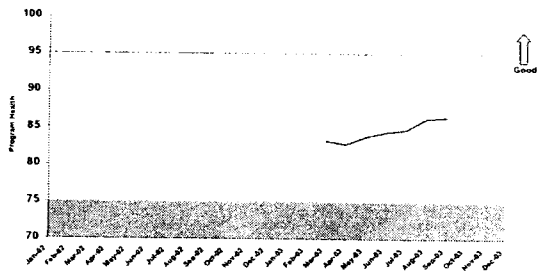
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Program Improvements

- ◆ Performance Indicator
- ◆ EQ Program Closure Assessment

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Program Health



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Closing Remarks

Stu Minahan
Acting Site Vice President



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