



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV

611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064

February 26, 2002

David L. Wilson, Vice President of  
Nuclear Energy  
Nebraska Public Power District  
P.O. Box 98  
Brownville, Nebraska 68321

SUBJECT: COOPER NUCLEAR STATION REGULATORY PERFORMANCE MEETING  
SUMMARY

Dear Mr. Wilson:

This refers to the public meeting between NRC and Nebraska Public Power District conducted in Auburn, Nebraska, on February 7, 2002. This meeting was held to discuss your root cause analysis, extent of condition evaluation, self assessments, and corrective actions associated with two White findings at the Cooper Nuclear Station. The findings involved a failure of the emergency response organization to recognize a simulated degraded core condition during an evaluated exercise and again during a later drill, which resulted in issuance of incorrect protective action recommendations for offsite populations.

We found the meeting to be informative in addressing our concerns. As was stated during the meeting, we will inform you by separate correspondence as to the extent of additional inspection which is currently being planned consistent with our Reactor Oversight Process to address these and other Emergency Preparedness Cornerstone issues.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, 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 Reading Room).

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

Sincerely,

A handwritten signature in black ink, appearing to read "Gail M. Good", is written over the typed name.

Gail M. Good, Chief  
Plant Support Branch  
Division of Reactor Safety

Docket: 50-298  
License: DPR-46

Nebraska Public Power District

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Enclosures:

1. Attendance List
2. Licensee Presentation

cc:

G. R. Horn, Senior Vice President  
of Nuclear and Enterprise Effectiveness  
Nebraska Public Power District  
1414 15th Street  
Columbus, Nebraska 68601

John R. McPhail, General Counsel  
Nebraska Public Power District  
P.O. Box 499  
Columbus, Nebraska 68602-0499

D. F. Kunsemiller, Risk and  
Regulatory Affairs Manager  
Nebraska Public Power District  
P.O. Box 98  
Brownville, Nebraska 68321

Dr. William D. Leech  
Manager - Nuclear  
MidAmerican Energy  
907 Walnut Street  
P.O. Box 657  
Des Moines, Iowa 50303-0657

Ron Stoddard  
Lincoln Electric System  
1040 O Street  
P.O. Box 80869  
Lincoln, Nebraska 68501-0869

Michael J. Linder, Director  
Nebraska Department of Environmental  
Quality  
P.O. Box 98922  
Lincoln, Nebraska 68509-8922

Chairman  
Nemaha County Board of Commissioners  
Nemaha County Courthouse  
1824 N Street  
Auburn, Nebraska 68305

Sue Semerena, Section Administrator  
Nebraska Health and Human Services System  
Division of Public Health Assurance  
Consumer Services Section  
301 Centennial Mall, South  
P.O. Box 95007  
Lincoln, Nebraska 68509-5007

Ronald A. Kucera, Deputy Director  
for Public Policy  
Department of Natural Resources  
205 Jefferson Street  
Jefferson City, Missouri 65101

Jerry Uhlmann, Director  
State Emergency Management Agency  
P.O. Box 116  
Jefferson City, Missouri 65101

Vick L. Cooper, Chief  
Radiation Control Program, RCP  
Kansas Department of Health  
and Environment  
Bureau of Air and Radiation  
1000 SW Jackson, Suite 310  
Topeka, Kansas 66612-1366

Training, Exercises, & Evaluation  
Branch Chief  
FEMA Region VII  
2323 Grand Blvd., Suite 900  
Kansas City, Missouri 64108-2670

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Regional Administrator (**EWM**)DRP Director (**KEB**)DRS Director (**ATH**)Branch Chief, DRS/PSB (**GMG**)EP Inspector, DRS/PSB (**REL**)Senior Resident Inspector (**MCH2**)Branch Chief, DRP/C (**KMK**)Senior Project Engineer, DRP/C (**vacant**)Staff Chief, DRP/TSS (**PHH**)RITS Coordinator (**NBH**)Jim Isom, Pilot Plant Program (**JAI**)State Liaison Officer (**WAM**)

DMB (IE35)

**RidsNrrDipmLipb**

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RIV:DRS/PSB	C:PSB	D:DRS		
REhantz:nlh	GMGood	ATHowell		
<i>2/19/02</i>	<i>Signed 2/12/02</i>	<i>1/02</i>		

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**ENCLOSURE 1**

Cooper Nuclear Station  
Regulatory Performance Meeting Attendance  
February 7, 2002  
Auburn, NE

Kevin Billesbach, QA, NPPD  
Beth Borsch, Sr. Manager, Corporate Comm., NPPD Columbus  
Loras Baumhover, Sheriff, Nemaha Co.  
Greg Casto, Emergency Preparedness Manager, CNS  
Tim Chard, Chemistry/RP Manager, NPPD  
Michael Coyle, Asst. VP, NMC/CNS  
Brent Curtis, REP Planner, NE EMA  
Ken Fike, Chemist, NPPD  
Jim Flaherty, Site Regulatory Liaison, CNS  
Ronald Fraass, Supervisor Env. Rad. & EP, NDHE  
Rick Gardner, Sr. Manager, QA, CNS  
Charles Garst, Watson Mo.  
Jim Genweck, Director, Richardson Co. EMA  
Mark Gillan, Work Control Manager, NPPD  
Roger Goas, Director, Nemaha Co. EMA  
Gail Good, Chief, PSB, NRC Region IV  
Michael Hay, Resident Inspector, CNS, NRC Region IV  
Guy Horn, Sr. Vice President, NPPD Columbus  
Brad Houston, QA Manager, CNS  
Art Howell, Director, DRS, NRC Region IV  
Jim Hutton, Plant Manager, CNS, NPPD  
Don Jagger, Director, Atchison Co. 911  
James Kelsay, EP Coordinator, CNS  
David Kunsemiller, Manager, Risk & Regulatory Affairs, NPPD  
Ryan Lantz, Sr. Emergency Preparedness Inspector, NRC Region IV  
Bill Leech, VP-Nuclear, Mid-American Energy  
Dave Meyers, Sr. Manager, Site Support, CNS  
Gail Rentschler, Atchison Co. 911  
David Robinson, QA Manager, NPPD  
Ed Rotkvia, Health Physicist, NPPD  
Julia Schmitt, Program Manager, Nebraska HHS R&L  
Jon Schwarz, Rad. Programs Manager, NE EMA  
Steve Sherron, ALARA Engineer, NPPD  
Ronald Stoddard, Consultant, LES  
Jim Sumpter, Project Manager, Licensing, CNS  
Chris Sunderman, RP, NPPD

# **Nebraska Public Power District**

## **Emergency Preparedness Regulatory Performance Meeting**

**Cooper Nuclear Station**

**February 7, 2002**

# Agenda

- Introduction . . . . . Dave Wilson
- Timeline and EP Improvement Plan. Dave Meyers
- Past Performance Issues . . . . . Jim Sumpter
- Self-Assessments . . . . . Greg Casto
- EP Improvements . . . . .Greg Casto
- Follow-Up Inspection Resolution . . . . Greg Casto
- Line Ownership of EP . . . . . Jim Hutton
- Closing Remarks . . . . . Guy Horn

# Introduction

David Wilson



# Timeline

## 2000

Aug Biennial exercise

Nov Preliminary White finding issued

August drill root cause issued

Dec Final determination (1st White finding)

## 2001

Apr Supplemental Inspection (1st White finding)

EP Drill

Jun Alert - Voltage transformer failure

April drill root cause issued

Emergency Preparedness Improvement Plan issued

# Timeline

## 2001

- Jul Preliminary 2nd White finding issued
- Aug Final determination (2nd White finding)  
USA external self assessment
- Sep White finding root cause issued
- Nov Supplemental Inspection (2nd White finding)

# Emergency Preparedness Improvement Plan Development

- Staff-identified improvement opportunities
- Corrective actions from White findings
- Corrective actions from June alert
- Quality assurance audits and escalation letter
- Root cause evaluations
- External assessment

# EP Improvement Plan Structure

- Augmentation
- Activation
- Backshift
- Administration
- Assessment
- Corrective Action Program
- Emergency Plan Review
- Management Ownership
- Offsite Programs
- Procedure Issues
- QA Responses
- Regulatory Issues
- Training

# Past Performance Issues

- Two (2) NRC White inspection findings
  - Weaknesses in two (2) drills
    - August 2000
    - April 2001

# August 2000 Biennial Exercise

- Critique process failed to identify drill issues
  - First White finding
- Failure to identify degraded core and make correct protective action recommendation (PAR) during exercise

# Root Cause Evaluations

- Root cause for critique failure (RCR 2000-0912)
  - Lack of performance standard for evaluating dose assessment performance
- Root cause for failure to identify degraded core and make correct PAR determination (RCR 2000-0909)
  - Procedure inconsistencies and lack of procedural guidance for wind shift

# Extent of Condition

- Failure to identify degraded core
  - No review conducted
- Critique failure
  - Reviewed other risk-significant drill evaluation areas for performance standards
  - Determined two risk-significant areas also lacked performance standards for drill evaluations
    - Notifications
    - PARS



# Corrective Actions - Critique Failure

- Instituted use of performance standards in drill evaluations for areas lacking those standards
- Enhanced evaluator training

# Corrective Actions - Failure to Identify Degraded Core

- Resolved procedure inconsistencies
- Developed guidance to address wind shifts
- Conducted training to review drill issues and corrective actions

# Status

- Corrective actions completed for both root cause evaluations
- Critique process effective per subsequent drills
- Inadequate critique issue closed in Inspection Report 01-04.

# April 2001 Drill

- Failure to identify degraded core and make correct PAR recommendation
- Critique identified drill performance issues

# Root Cause Evaluation

- Root cause for failure to identify degraded core and make correct PAR determination (RCR 2001-0331)
  - Teamwork needs improvement
    - Communications
    - Procedure usage
    - Command and control

# Extent of Condition

- Reviewed other similar positions in other emergency response facilities for teamwork issues
- No other cases found

# Corrective Actions

- Developed objective criteria for teamwork to be used for evaluating drill performance in each emergency response facility
- Conducted immediate training for key emergency response organization members on procedure adherence and degraded core assessment
- Provided additional training on core damage assessment for key emergency response organization members

# Second White Finding

- Corrective actions to prevent recurrence of dose assessment weaknesses experienced in August 2000 exercise were not fully effective



# Root Cause Evaluation

(SCR 2001-0624)

- Previous root cause evaluations narrowly focused
  - Addressed degraded core
  - Did not address failure to make correct PAR determination
  - No common causes identified
- Re-performed previous root cause evaluations
- Focused on failure to make correct PAR determination
- Results
  - Identified common causes
  - Identified additional causes

# Root Causes

- Failure to recognize significance of EP performance issues
- Inadequate guidance in corrective action process concerning significance of EP performance issues  
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- Inadequate dose assessment and command and control training
- Inadequate drill scenario validation

# Extent of Condition

- Found three other performance areas with potential similar weaknesses
  - Physical Protection
  - Radiation Safety
  - NRC Performance Indicators
- Events in these areas appropriately classified in corrective action program

# Corrective Actions

- Revised corrective action program procedures
- Provided additional training
  - Importance of risk-significant areas in corrective action program
  - Core damage assessment
  - Command and control
- Improved drill scenario control
- Corrective actions completed

# Self-Assessments

## 2001

- Aug    Emergency response facility appraisal  
         Utilities Service Alliance assessment  
         External peer review
- Sep    Emergency plan/regulatory review
- Oct    EP program commitment review

## 2002

- Jan    EP management program assessment

# Self Assessment Findings

Improvements recommended in:

- Emergency response facilities
- Emergency plan implementing procedures
- Staff augmentation
- Corrective action program backlog
- Training

# Significant Accomplishments-2001

- Established and managed a broad based improvement plan
- Demonstrated high level of plant management commitment and on-site support
- Installed additional backup power to emergency response facilities
- Incorporated 2 years of critique data into corrective action program
- Developed work-off plan for corrective action backlog
- Improved drill and exercise manual
- Improved/tested staff augmentation process

# Planned Improvements-2002

- Procedures/Training
  - Upgrade Emergency Plan implementing procedures and training to best industry practices
- Drills
  - Nine scheduled
  - Includes player briefs/performance training drills
- Scenario development software
  - Improved program for simulator scenario development, critique trending, major Emergency Plan element tracking
- Emergency response organization (ERO) improvements
  - Additional management assignments to ERO



# Performance Measurement

- Revised key performance indicators
  - ERO performance
  - Staff augmentation
  - ERO staffing
- Corrective action program performance
  - Site-wide
  - Departmental

# Performance Assessment

- Completion of Improvement Plan milestones
- Drill critiques
- Monthly review of Performance Indicators
- Continued self-assessments
- QA audits and surveillances

# Follow-Up Inspection Resolution

- Dose assessment team performance
  - Additional training for dose assessment team complete
- EP corrective action program implementation
  - 2000/2001 drill performance issues entered into corrective action program
  - Recently completed QA surveillance

# Follow-Up Inspection Resolution

- Historical research of condition reports
  - Historical search relative to extent of condition documented in SCR 2001-0624
- Self-assessments
  - Root cause evaluations and self-assessments have bounded the issues identified in White findings

# Line Ownership

- Organizational commitment is an imperative
- Top ten site wide focus areas includes EP performance improvement
- Additional management personnel assigned key roles

# Closing Remarks

Guy Horn