



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV

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

JUN 27 1996

EA 96-202

Guy R. Horn, Vice President - Nuclear  
Nebraska Public Power District  
1414 15th Street  
Columbus, Nebraska 68601

SUBJECT: PREDECISIONAL ENFORCEMENT CONFERENCE (NRC INSPECTION  
REPORT 50-298/95-18; NRC INVESTIGATION REPORT 4-96-002)

This refers to the control rod mispositioning event, on January 7, 1996, at the Cooper Nuclear Station facility. NRC's review of this event included consideration of our Inspection Report 50-298/95-18, your investigation report, as forwarded to NRC, by your letter dated January 17, 1996, and an investigation conducted by the NRC's Office of Investigations to determine whether one or more employees at Cooper Nuclear Station had willfully violated the terms of their individual NRC license(s).

Based on the results of this review, the NRC has identified apparent violations of NRC regulations. We have discussed these apparent violations with Mr. J. Mueller and other members of your staff by telephone conference on June 18, 1996. These violations are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. Accordingly, no Notice of Violation is presently being issued for these inspection findings. In addition, please be advised that the number and characterization of apparent violations described below may change as a result of further NRC review. A brief description of the apparent violations is attached for your information.

We are particularly concerned by the failure of the operating crew on watch on January 7, 1996, to operate the facility in a conservative manner with respect to reactor safety. Specifically, control room operators mispositioned reactor control rods, did not report the error, implemented an unauthorized recovery plan, and inserted the emergency control rods without supervision approval. These actions were either unnoted or observed but unquestioned by the shift supervisor or control room supervisor. Our concern is heightened by the fact that this event involved operator control and senior operator oversight of core reactivity, the specific functions for which individual NRC licenses are required.

9607030228 960627  
PDR ADOCK 05000298  
G PDR

/1  
JEPI

Please contact Messrs. E. Collins or J. Pellet, at 817/860-8291 and 817/860-8159, respectively, to schedule a predecisional enforcement conference to discuss the apparent violations. We request that those members of the operating crew and others, who were directly involved in the event and are currently in your employment be present for the conference. The conference will be transcribed. The decision to hold a predecisional enforcement conference does not mean that the NRC has made final determinations that violations occurred or that enforcement action will be taken. This conference is being held to obtain information to enable the NRC to make an enforcement decision, such as a common understanding of the facts, root causes, corrective actions, significance of the issues and the need for lasting and effective corrective action. In addition, this is an opportunity for you to point out any errors in our description of the facts and for you to provide any information concerning your perspectives on: (1) the severity of the violations, (2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and (3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII.


During the predecisional enforcement conference, please address management expectations on control room supervisory oversight, information flow within the crew, and procedure adherence; how these management expectations were promulgated to the crews; how crews were constituted to satisfy management expectations; and how adherence with management expectations is monitored during operation and training. You should address your expectations for control room supervision maintaining an oversight role versus completing other activities. Finally, you should describe your expectations and controls relating to reactor engineering direction or authorization of reactivity manipulations.

You will be advised by separate correspondence of the results of our deliberations on this matter. No response regarding the apparent violations is required at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and enclosure will be placed in the NRC Public Document Room (PDR).

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

Sincerely,



Thomas P. Gwynn, Director  
Division of Reactor Safety

Docket No.: 50-298  
License No.: DPR-46

Enclosure: As stated

cc w/enclosure:  
John R. McPhail, General Counsel  
Nebraska Public Power District  
P.O. Box 499  
Columbus, Nebraska 68602-0499

John Mueller, Site Manager  
Nebraska Public Power District  
P.O. Box 98  
Brownville, Nebraska 68321

Robert C. Godley, Nuclear Licensing  
& Safety Manager  
Nebraska Public Power District  
P.O. Box 98  
Brownville, Nebraska 68321

R. J. Singer, Manager-Nuclear  
Midwest Power  
907 Walnut Street  
P.O. Box 657  
Des Moines, Iowa 50303

Mr. Ron Stoddard  
Lincoln Electric System  
11th and O Streets  
Lincoln, Nebraska 68508

Randolph Wood, 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

Cheryl Rogers, LLRW Program Manager  
Environmental Protection Section  
Nebraska Department of Health  
301 Centennial Mall, South  
P.O. Box 95007  
Lincoln, Nebraska 68509-5007

Dr. Mark B. Horton, M.S.P.H.  
Director  
Nebraska Department of Health  
P.O. Box 950070  
Lincoln, Nebraska 68509-5007

R. A. Kucera, Department Director  
of Intergovernmental Cooperation  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

Kansas Radiation Control Program Director

E-Mail report to D. Nelson (DJN)  
 E-Mail report to NRR Event Tracking System (IPAS)

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan	Resident Inspector
DRP Director	DRS-PSB
Branch Chief (DRP/C)	MIS System
Branch Chief (DRP/TSS)	RIV File
Project Engineer (DRP/C)	Leah Tremper (OC/LFDCB, MS: TWFN 9E10)
G. F. Sanborn, EO	
W. L. Brown, RC; and	
OE:EA File, MS 7-H-5	
S. Richards (C:HOLB/DRCH/NRR, MS: OWFN 10D22)	

DOCUMENT NAME: R:\ CNS\CN518LT.JLP \*Previously concurred  
 To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

C:OB:DRS	C	D:DRS	N	C:DRP/C	EO	DRS
JLPellet:cg*		TPGwynn*		EEOllins*	GFSanborn*	SJCollins
06/19/96		06/20/96		06/21/96	06/21/96	06/21/96

RA		D:DRS	N			
LJCallan						
06/20/96		6/17/96				

OFFICIAL RECORD COPY

0300.19

E-Mail report to D. Nelson (DJN)  
 E-Mail report to NRR Event Tracking System (IPAS)

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan	Resident Inspector
DRP Director	DRS-PSB
Branch Chief (DRP/C)	MIS System
Branch Chief (DRP/TSS)	RIV File
Project Engineer (DRP/C)	Leah Tremper (OC/LFDCB, MS: TWFN 9E10)
G. F. Sanborn, EO	
W. L. Brown, RC; and	
OE:EA File, MS 7-H-5	
S. Richards (C:HOLB/DRCH/NRR, MS: OWFN 10D22)	

DOCUMENT NAME: R:\\_CNS\CN518LT.JLP \*Previously concurred  
 To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

C:OB:DRS	C	D:DRS	N	C:DRP/C	EO	DRS
JLPellet:cg*		TPGwynn*		EECollins*	GFSanborn*	SJCollins
06/19/96		06/20/96		06/21/96	06/21/96	06/ /96

RA		D:DRS	N			
LJCallan						
06/10/95		6/17/96				

OFFICIAL RECORD COPY

## ENCLOSURE

### APPARENT VIOLATIONS ON JANUARY 7, 1996, AT COOPER NUCLEAR STATION

The following sequence of events is a summary of NRC's understanding of events that occurred at the Cooper Nuclear Station on January 7, 1996, between 7:14 and 7:43 p.m. This summary is based on information contained in NRC Inspection Report 50-298/95-18, in NRC interviews with involved Cooper Nuclear Station employees, and in a Nebraska Public Power District internal investigation report that was forwarded to NRC on January 17, 1996.

#### Sequence of Events

On January 7, 1996, a reactor recirculation pump trip occurred. During this event, operators began inserting the control rods at 7:14 p.m., at the direction of the control room supervisor, in reverse sequence. The operators started with the control rods on page 37 of the control rod sequence book. Both operators assumed that the book, open to page 37, was open to the proper page and did not verify that this was the case.

At 7:25 p.m., the operators recognized that the control rods inserted at that point had been inserted out of sequence. The operators detected this when turning from page 37 to page 36 of the control rod sequence book. When the operators started to insert the control rods on page 36, they noted that the rods to be moved were not in the initial positions described on page 36. At this time, the operators determined that the last page of the control rod sequence book, and the proper starting point for the rod insertion they had been conducting, was page 51.

The operators began correcting their error by inserting the rods listed on page 51, at 7:31 p.m., in reverse sequence and did not communicate their error or their corrective actions to anyone else. When inserting rods in reverse sequence did not reduce the rod line as quickly as the operators desired, they departed from inserting rods in the directed reverse sequence by inserting the rods listed on the emergency control rods movement sheet. These rods are relatively high worth rods listed separately from the rod sequence, to be used when rapid reactor power reduction is required. The operators were in the process of inserting the rods on the emergency control rod movement sheet when the reactor engineer arrived in the control room.

The operators discussed their original error and in-progress corrective actions with the reactor engineer. The reactor engineer concurred in the continuation of the in-progress corrective actions. At about 7:39 p.m., the control room supervisor directed the operators to stop inserting rods while a feedwater pump was removed from service. At about 7:43 p.m., the operators informed the control room supervisor and shift supervisor of their original error and subsequent corrective actions.

From 7:14 p.m. to about 7:43 p.m., during a period when reactor power and rod position was of significant concern, neither the control room supervisor nor the shift supervisor discussed control rod position or power with either of the operators responsible for operating the control rods, despite conversing with them on the need to momentarily stop their actions. Also, neither

supervisor, during this period, effectively monitored control rod position. The control room supervisor stated that he noted briefly that the operators were inserting rods from the emergency control rods movement sheet rather than the reverse sequence he directed, but did not intercede when he observed the unlicensed reactor engineer in the area. One of the operators, who held a supervisory position and a senior operator license, stated he felt he acted as a supervisor during the operators' actions. However, the record indicates that the control room supervisor did not delegate his oversight function to the operators moving the control rods.

Based on review of the available information, NRC has determined that the following apparent violations occurred.

#### Apparent Violations

1. Step 8.2.6 5 of Cooper Nuclear Station Operations Manual, "Conduct of Operations Procedure 2.0.3," Revision 20, dated August 21, 1995, states, "Operators should notify the control room supervisor and shift supervisor of any unexpected situations encountered in monitoring the main control boards." The failure of the operators to communicate the unexpected rod condition at the time of discovery, contrary to this procedure, was an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which requires, in part, that, "Activities affecting quality shall be . . . accomplished in accordance with these instructions, procedures, and drawings."
2. Step 8.1.5 of Cooper Nuclear Station Operations Manual, Nuclear Performance Procedure 10.13, "Control Rod Sequence and Movement Control," Revision 26, dated December 24, 1995, requires that operators, ". . . not deviate from the sequence unless approved by a reactor engineer (or shift supervisor in an emergency) or per a SORC approved procedure." The operators' actions to insert the rods starting with the incorrect page of the control rod sequence book and to subsequently insert the rods on the emergency control rod movement sheet, both without the express permission of a reactor engineer or the shift supervisor, or an approved procedure, are separate examples of an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which requires, in part, that, "Activities affecting quality shall be . . . accomplished in accordance with these instructions, procedures, and drawings."
3. Step 8.4.4 of Cooper Nuclear Station Operations Manual, Nuclear Performance Procedure 10.13, "Control Rod Sequence and Movement Control," Revision 26, dated December 24, 1995, requires that operators, "With concurrence of the shift supervisor and reactor engineer, implement a recovery plan . . ." The operators' actions contrary to this procedure to recover from the mispositioned control rods using a recovery plan not concurred in by the shift supervisor and the reactor engineer was an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which requires, in part, that, "Activities affecting quality shall be . . . accomplished in accordance with these instructions, procedures, and drawings."



4. Step 4.2.1 of Cooper Nuclear Station Operations Manual, "Conduct of Operations Procedure 2.0.3." Revision 20, dated August 21, 1995, states, in part, that the shift supervisor and control room supervisor are, "Responsible for ensuring that all activities conducted within the control room are completed in a manner such that the plant is maintained in a safe and efficient operating state." This step further states that the shift supervisor and control room supervisor can accomplish this through, ". . . observation of proper control room conduct as outlined in this procedure." Contrary to this procedure, for more than 25 minutes, the shift supervisor and control room supervisor did not maintain sufficient observation of control room activities and conditions, specifically control rod position and the conduct of the operators inserting control rods, to detect whether control room conduct was proper. This is an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which requires, in part, that, "Activities affecting quality shall be . . . accomplished in accordance with these instructions, procedures, and drawings."