



Nebraska Public Power District
Nebraska's Energy Leader

NLS2001081
September 13, 2001

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Gentlemen:

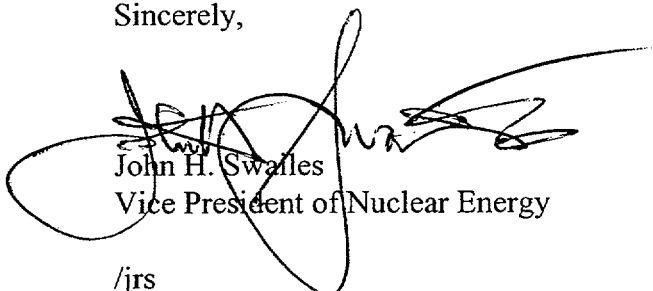
Subject: Reply to a Notice of Violation
NRC Letter No. EA-01-154
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference: 1. Letter to J.H. Swailes (NPPD) from Ellis W. Merschoff (USNRC) dated August 13, 2001, "Final Significance Determination for a White Finding and Notice of Violation (NRC Inspection Report No. 50-298/01-04)"

By letter dated August 13, 2001 (Reference 1), the NRC cited Nebraska Public Power District (District) as being in violation of NRC requirements. This letter, including Attachment 1, constitutes the District's reply to the referenced Notice of Violation in accordance with 10CFR 2.201. The District admits to the violation and has completed the corrective actions necessary to return Cooper Nuclear Station (CNS) to full compliance. The due date for the response was extended to September 17, 2001 per discussion between Kriss Kennedy, Chief, Project Branch C, NRC Region IV and D. F. Kunsemiller, Manager, Risk and Regulatory Affairs, CNS.

Should you have any questions concerning this matter, please contact me.

Sincerely,



John H. Swailes
Vice President of Nuclear Energy

/jrs
Attachment

cc: Regional Administrator
USNRC - Region IV

Cooper Nuclear Station
P.O. Box 98 / Brownville, NE 68321-0098
Telephone: (402) 825-3811 / Fax: (402) 825-5211
<http://www.nppd.com>

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Senior Project Manager
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector
USNRC

NPG Distribution

REPLY TO AUGUST 13, 2001, NOTICE OF VIOLATION
COOPER NUCLEAR STATION
NRC DOCKET NO. 50-298, LICENSE DPR-46

During NRC inspection activities conducted from April 9, 2001, through June 27, 2001, a violation of NRC requirements was identified. The particular violation and the Nebraska Public Power District's (District) reply are set forth below:

Violation

10CFR50, Appendix E, IV.F.2.g, requires that all training, including exercises, shall provide for formal critiques in order to identify weak or deficient areas that need correction. Any weaknesses or deficiencies that are identified shall be corrected.

Contrary to the above, the licensee failed to correct a risk-significant performance weakness that was identified following the August 29, 2000, biennial exercise (the exercise did provide for a formal critique). Specifically, corrective actions implemented to prevent recurrence of a dose assessment performance weakness identified following the biennial exercise were not adequate in that they were narrowly focused. Corrective actions for the performance weakness concentrated on procedural inconsistencies and did not sufficiently recognize the need for additional personnel training. As a result, the performance weakness was repeated during an April 11, 2001, drill.

This violation is associated with a White significance determination process finding.

Admission or Denial to Violation

The District admits the violation.

Reason for Violation

This violation response will address two issues, the failure to implement sufficiently broad corrective actions and the failure to develop a correct Protective Action Recommendation during the August 2000 graded exercise and the April 2001 drill. Corrective actions will be discussed for both issues.

A root cause determination was performed after both the August 2000 graded exercise and the April 2001 drill. The District reviewed those root cause determinations to identify what, if anything, could have been done differently in the evaluation of the problems experienced in the August 2000 exercise that might have precluded a recurrence in the April 2001 drill.

The root cause report for the August 2000 exercise identified “procedural issues” as the cause and did not include an extent of condition review, which was not required by procedure. The root cause report for the April 2001 drill identified “crew teamwork needs improvement” as the root cause and included a limited extent of condition review. The evaluation did not identify that there was a common cause concerning procedural issues in both events.

The problem statement, evaluation and the subsequent corrective actions for each root cause evaluation focused primarily on the failure to determine a degraded core. The problem statements and resulting corrective actions were too narrowly focused, only a limited extent of condition was performed, and there was a lack of recognition of a common cause in both events.

Therefore, a broader problem statement, “the Emergency Response Organization failed to identify the correct Protective Action Recommendation” was used and the drill weaknesses in the August 2000 exercise and in the April 2001 drill were reevaluated. These new evaluations demonstrated, that with the broader problem statement, additional causes were identified for each event that were not identified in the original evaluations. For example, these additional causes identified the need for additional training on core damage assessment for the dose assessment staff, facility directors and Emergency Directors. This training would improve understanding of the bases and margins of the numerical values in procedures related to degraded core conditions. Another example concerns the need for improved communication between the Simulator staff and the Emergency Preparedness staff so that simulator modifications and drill scenario validation activities are better coordinated.

The causes identified in the reevaluations were reviewed to ensure that the associated corrective actions either were already completed or have been placed into the Corrective Action Program. The additional corrective actions resulting from the reevaluations are included in this response.

The District then investigated why the corrective actions taken for the August 2000 exercise weakness were narrowly focused and ineffective in preventing recurrence of the weakness during the April 2001 drill. Two root causes resulted from that investigation. The first root cause was a failure of those involved in the corrective action process to recognize the significance of Emergency Preparedness (EP) performance issues. The process includes generating a condition report and providing the associated supervisory review, reviewing and classifying the condition as to significance, performing the root cause determination and developing adequate corrective actions. The second root cause was a lack of adequate guidance in the corrective action process concerning the significance of these types of issues. In the Cooper Nuclear Station (CNS) corrective action process, the extent of an evaluation performed on an issue is generally dependent on the risk significance of the issue.

The original root cause evaluations of the August 2000 exercise and the April 2001 drill should have included a broader review of the Protective Action Recommendation determination process

and a more thorough extent of condition investigation by a team with more EP knowledge and experience and additional management reviews. These further actions would have placed additional barriers into the corrective action process, increasing the likelihood that corrective actions would have been more extensive and that the August exercise performance weakness would not have recurred.

Extent of Condition

The extent of condition for the root causes associated with ineffective corrective actions was evaluated by reviewing the remaining Reactor Oversight Process cornerstone areas to determine if other issues could arise that would result in an inadequate root cause evaluation and corrective actions because their significance was not recognized and appropriately incorporated into the corrective action process. That evaluation did identify additional issues in the cornerstones.

Condition reports at CNS are evaluated for significance taking into account a number of factors, including risk significance. A review of those factors found that, except for risk significance, condition reports would be adequately classified as to significance and appropriately addressed within the corrective action process.

When risk significance is a factor in the evaluation of a condition report, CNS uses a process that incorporates the framework of the NRC Significance Determination Process (SDP). A review was performed for each cornerstone and evaluated in conjunction with station guidance. The risk significance evaluation of a condition report in the Corrective Action Program in any of the three Reactor Safety cornerstones of Initiating Events, Mitigating Systems or Barrier Integrity does take into account risk significance through use of the station's Probabilistic Risk Analysis (PRA) model. The thresholds used in the Corrective Action Program for these three cornerstones for risk significance level are conservative.

Both the Occupational and Public Radiation Safety cornerstones have limits in the SDP relating to the amount of dose received in an event and the number of times an event has occurred. The CNS corrective action process has set conservative values for those limits. While a single event may be of low risk significance, the accumulation of events or an event that results in a limit being approached may be of higher risk significance even though a risk threshold may not be crossed. The Physical Security cornerstone is similar to the Radiation Safety cornerstones in that the risk significance of some events depends on how many have occurred over a certain time frame.

For the NRC Performance Indicators, CNS has established internal thresholds within the NRC "Green" band to aid in identifying declining trends so that actions can be undertaken before NRC thresholds are crossed. However, until a NRC Performance Indicator (PI) crosses an NRC-established threshold, an individual event that affects a PI is, by itself, not classified as a

significant condition adverse to quality in the Corrective Action Program. The potential risk significance of declining Performance Indicator trends where the Performance Indicator has not crossed NRC thresholds has not been appropriately incorporated in the Corrective Action Program. At this time, there are no CNS NRC Performance Indicators declining at a rate that would warrant immediate corrective actions.

CNS recognizes that the corrective action process should assist its personnel in arriving at appropriate conclusions. With respect to the significance of a condition, CNS also recognizes that reasonable individuals and groups should recognize significance regardless of the process. To that end, CNS will be taking corrective actions to enhance the knowledge of our personnel.

Corrective Steps Taken and the Results Achieved

1. A review of the immediate corrective actions associated with the original root cause evaluations for both the August 2000 exercise and the April 2001 drill was performed. The District's immediate actions from those evaluations will improve degraded core and Protective Action Recommendation decisions and Emergency Response Organization (ERO) teamwork and individual performance. The actions were completed on May 1, 2001.

Immediate corrective actions from the August 2000 graded exercise root cause evaluation included procedure revisions and tailgate training sessions on the procedure changes and roles and responsibilities of the dose assessment team. Additional workshops were held with each Emergency Response Organization team to review the root cause evaluations related to the August 2000 drill. There were discussions concerning procedures and leadership roles and practice sessions were conducted on Emergency Action Level classifications using various scenarios. Special breakout sessions were held with the dose assessment team during these workshops to practice dose assessment and degraded core identification plus teamwork using several drill scenarios.

Corrective actions from the April 2001 drill root cause evaluation included decertifying the Emergency Director and the Radiological Control Manager from their respective ERO positions. A human error review board investigated the drill weakness and the results were reviewed with the individuals involved and individual corrective actions were taken. The issue of procedure compliance in regard to dose assessment procedures was addressed in a tailgate training session with key ERO individuals. The Emergency Director involved in this drill performed duties as an evaluator in a subsequent drill to improve command and control.

The following immediate corrective action is associated with the issue of ineffective, narrowly focused corrective actions.

2. A White Paper was distributed to the cornerstone managers and the Corrective Action

Program group that reviews and classifies the daily condition reports as to significance. The paper discussed the additional risk significant issues identified in the root cause evaluation performed for this violation and methods to identify and document that risk so that the issues are appropriately evaluated in the corrective action process. A meeting was also held with the Condition Review Group and discussions were held with the Emergency Preparedness, Radiation Safety and Physical Security cornerstone managers to review details of the paper. These actions should heighten the sensitivity of those involved in reviewing and classifying condition reports to the additional risk significant issues. These meetings were completed on September 11, 2001.

Emergency Preparedness management, knowledge and skill concerns related to the first root cause of lack of recognition of the significance of EP Performance issues have been addressed. Concerns with management have resulted in the management team responsible for EP being no longer in those positions. The Senior Manager of Site Support position has been filled and the EP Manager position is in the process of being staffed. An experienced EP consultant has been added to the EP staff. The scenario coordinator position has been filled with an experienced individual.

In addition to the August 2000 exercise and April 2001 drill, the District has held several ERO and simulator drills involving degraded core and Protective Action Recommendation determinations. ERO drills were held on November 29, 2000, June 5, 2001 (annual exercise) and on September 12, 2001. The latter drill was prematurely terminated due to the national terrorist situation. Degraded core and Protective Action Recommendations have been accurately determined when required by the scenario. In simulator drills, there have been twelve opportunities for correct Protective Action Recommendations. Eleven have been accurately determined, with the one failure, in November 2000, due to a form not being filled out correctly. The Protective Action Recommendation was accurately determined in that case but could not be counted per NRC guidance. These successes are an indicator that improvements have occurred in the determination of degraded cores and Protective Action Recommendations and have been effectively implemented during drills.

Corrective Steps That Will Be Taken to Avoid Further Violations

The following corrective actions are associated with the issue of ineffective, narrowly focused corrective actions.

1. Corrective Action Program procedures will be revised to incorporate enhanced guidance on the risk significance of additional issues whose significance has not been previously recognized and appropriately incorporated into the corrective action process. This action will be completed by October 15, 2001.
2. Specific minimum training requirements will be established for EP personnel. The training

will be completed by October 15, 2001.

3. The need for minimum training requirements for the CNS group that initially screens and classifies condition reports as to significance will be evaluated. That action and any identified training will be completed September 27, 2001.

The following corrective actions are associated with the issue of incorrect Protective Action Recommendation determinations. These additional actions were identified as a result of the review of the original root cause evaluations of the August 2000 exercise and the April 2001 drill.

4. Emergency Response Organization positions will be evaluated to determine those that should require mandatory drill participation prior to full qualification. This action will be completed by October 15, 2001. Any individuals holding those positions that have not participated in a drill will have completed that drill participation by November 29, 2001.

5. Simulator Service Department guidelines will be revised to require that the Emergency Preparedness Department be notified of any proposed simulator modifications that are scheduled to be implemented prior to a drill after the drill scenario has already been validated. This action will be completed by November 3, 2001.

6. The District is developing more detailed areas to trend based on drill weaknesses identified during critiques. These additional areas will be used to identify recurring weaknesses and negative trends in drill performance. This action will be completed by November 3, 2001.

7. The District is providing training on core damage assessment for the Emergency Director, Emergency Operations Facility Director, Radiological Control manager, Radiological Assessment Supervisor, Chem/Radiological Protection Coordinator in the Technical Support Center and the Technical Support Center Director for each ERO team. This training is in addition to that taken after the August 2000 exercise and April 2001 drill, described on Page 4 of this response. This action will be completed by November 29, 2001.

8. The District will ensure that training associated with the above corrective actions is incorporated into the EP and ERO initial training programs. This action will be completed by November 29, 2001.

Date When Full Compliance Will Be Achieved

The District believes it is in full compliance as of May 1, 2001 for the issues related to degraded core and Protective Action Recommendations. For the issue related to the development of ineffective, narrowly focused corrective actions, the District believes it is in full compliance as of

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to NLS2001081
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September 11, 2001.

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS

Correspondence Number: NLS2001081

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described for information only and are not regulatory commitments. Please notify the NL&S Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
Revise Corrective Action Program procedures to incorporate enhanced guidance on the risk significance of additional issues whose significance has not been previously recognized and appropriately incorporated into the corrective action process.	October 15, 2001
Establish and complete minimum training requirements for EP personnel.	October 15, 2001
Evaluate Emergency Response Organization positions to determine those that should require mandatory drill participation prior to full qualification.	October 15, 2001
Complete drill participation for any individuals holding the positions identified in the previous action who have not participated in a drill.	November 29, 2001
Evaluate minimum training requirements for the CNS group that initially screens and classifies condition reports as to significance. Complete any identified training.	September 27, 2001
Revise Simulator Services Department guidelines to require that EP be notified of any proposed simulator modifications that are scheduled to be implemented prior to a drill after the drill scenario has already been validated.	November 3, 2001
Develop more detailed areas to trend based on drill weaknesses identified during critiques. These additional areas will be used to identify recurring weaknesses and negative trends in drill performance.	November 3, 2001
Provide additional training on core damage assessment for the Emergency Director, Emergency Operations Facility Director, Radiological Control Manager, Radiological Assessment Supervisor, Chem/Radiological Protection Coordinator in the Tech Support Center and the Tech Support Center Director for each Emergency Response Organization team.	November 29, 2001

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS

Ensure that training associated with the above corrective actions is incorporated into the EP and ERO initial training programs.	November 29, 2001