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 50-315/89-04 & 50-316/89-04.

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AEP:NRG:1090C

Donald C. Cook Nuclear Plant Unit No. 2  
Docket No. 50-316  
License No. DPR-74  
INSPECTION REPORTS 50-315/89004 (DRS) AND  
50-316/89004 (DRS); RESPONSE TO VIOLATION

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Attn: A. B. Davis

May 16, 1989

Dear Mr. Davis:

This letter is in response to R. W. Cooper's letter dated April 14, 1989, which forwarded the report on the routine safety inspection conducted by members of your staff. This inspection was conducted from February 13 through February 17, 1989, and on March 15 and April 5, 1989, on activities at Donald C. Cook Nuclear Plant Units 1 and 2. The Notice of Violation attached to Mr. Cooper's letter identified three violations associated with the Fire Protection Program implementation at Cook Nuclear Plant. These violations are addressed in the attachment to this letter.

This document has been prepared following Corporate procedures that incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,

M. P. Alexich  
Vice President

ldp  
Attachment

cc: D. H. Williams, Jr.  
W. G. Smith, Jr. - Bridgman  
R. C. Callen  
G. Charnoff  
NRC Resident Inspector - Bridgman  
G. Bruchmann

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ATTACHMENT TO AEP:NRC:1090C  
RESPONSE TO NOTICE OF VIOLATION

NRC Violation I

"Technical specification 6.8.1.f for Units 1 and 2 requires that written procedures be established, implemented, and maintained covering the implementation of the fire protection program. Fire protection valve line-up verification procedure No. 12-OHP 4030.STP.120VV (Carbon Dioxide (CO<sub>2</sub>) Flow Path Verification) requires that CO<sub>2</sub> pilot valve 12-FCO-174 be in the sealed open position.

Contrary to the above, on February 15, 1989, the inspectors observed that CO<sub>2</sub> system valve No. 12-FCO-174 was open but not sealed.

This is considered a Severity Level IV violation (Supplement I)."

RESPONSE TO VIOLATION

(1) Corrective Actions Taken and Results Achieved

Upon discovery of CO<sub>2</sub> system valve No. 12-FCO-174 in an unsealed condition, the operator accompanying the NRC inspector verified that the valve was in the correct (open) position, removed the improperly installed seal and properly re-sealed the valve (to prevent the valve handle from being rotated more than a fraction of one revolution in the closed direction without breaking the seal).

(2) Corrective Action Taken to Avoid Further Violation

All Cook Nuclear Plant licensed and non-licensed operators have been instructed as to the proper method of valve sealing. These instructions will be reinforced by the use of "read-it" packages which will be included as part of the licensed and non-licensed personnel training.

With regard to the specific instance cited in the inspection report, a sealing device of a different design has been installed for the valve in question. The sealing device consists of a piece of braided cable anchored to the enclosure that contains the valve. With the sealing device installed, the valve cannot be closed, or even rotated more than a few degrees, without



breaking the seal. In addition, a sign has been attached to the cable of the sealing device which clearly states its intended use for sealing valve No. 12-FCO-174 in the open position. These same provisions were applied to three additional CO<sub>2</sub> system valves which were judged to have the potential for the problem cited.

(3) Date When Full Compliance will be Achieved

Full compliance was achieved on February 15, 1989, when the valve in question was properly sealed in the open position.

NRC Violation II

"10 CFR 50, Appendix B, Criterion III, as implemented by the D. C. Cook Operations Quality Assurance Program, requires that design control measures be provided for verifying or checking the adequacy of design. Design changes shall be subject to design control measures commensurate with those applied to the original design.

Contrary to the above, the licensee failed to ensure that adequate corporate design control measures were provided for the 1985 Appendix R design changes which relocated the Unit 1 and Unit 2 Essential Service Water (ESW) pump controls out of the opposite unit's control room onto the respective unit's Hot Shutdown Panel. This was evidenced by the failure of the design control organization to reroute the control cables for the Unit 1 East and Unit 2 West ESW pump discharge valves.

This is a Severity Level IV violation (Supplement I)."

RESPONSE TO VIOLATION

The AEPSC Electric Plant Design Section and the Cook Nuclear Plant determine cable routings based upon the requirements of engineering specifications developed from appropriate NRC guidelines. Any special requirements (i.e., beyond those in the engineering specifications) for cable routing associated with a specific design are given in a Design Change Scope of Design Revision (SDR) document. The SDR then becomes a part of the documentation used to issue approved cable routing drawings. The SDR for the design changes cited in the Notice of Violation did contain special instructions for re-routing

of the involved Appendix R cables. Personnel involved in designing the subject design changes failed to fully implement the requirements of the SDR.

(1) Corrective Actions Taken and Results Achieved

Upon discovery that the cable rerouting for the ESW pump discharge valves had not been completed as required by the SDR for the 1985 Appendix R design changes, a Problem Report (PR) was initiated as required by our corrective action procedures to establish the safety significance of the as-found condition and determine any necessary corrective action. (PR 88-0660 dated September 15, 1988). The results of actions initiated via PR 88-0660 are discussed in detail in the response to Violation III below. As indicated in the response to Violation III, the initial evaluation of the PR concluded that no immediate compensatory measures were required as a result of the as-found condition (e.g., posting a fire watch in the Unit 1 cable vault area).

(2) Corrective Action Taken to Avoid Further Violation

Subsequent to the instance cited in the Notice of Violation, the following design change controls were implemented:

- o General Procedure GP 3.1 Rev. 0 (12/18/86) and Change Sheet No. 4 to the procedure (8/25/88); Section 5.13 Deviations During Implementation From Approved Design Documents
- o Plant Manager's Procedure PMP 5040 MOD.004 Rev. 0 (6/20/88) Section 4.9.1 Installation Variations and ATTACHMENT 7 to the procedure

In addition, the design verification checklists used by the Electric Plant Design Section and the Electrical Systems Division now specifically address Appendix R concerns. Increased emphasis is also being applied to heighten the awareness of involved engineers and designers with respect to Appendix R criteria. These procedural and administrative controls are intended to minimize the potential for recurrence of the type of problem cited in the Notice of Violation.



(3) Date When Full Compliance will be Achieved

Cook Nuclear Plant is now in full compliance with the design requirements specified for the cited instance. The required rerouting of the cable for the ESW pump discharge valves was completed on May 10, 1989 in Unit 1 and on February 15, 1989 in Unit 2.

NRC Violation III

"10 CFR 50, Appendix B, Criterion XVI, as implemented by the D. C. Cook Fire Protection Quality Assurance Program, requires that conditions adverse to quality be promptly corrected.

Contrary to the above, the improper electrical cable routing of the Essential Service Water (ESW) discharge valve control cables, which was discovered by corporate reviewers on September 15, 1988, was not promptly communicated to the cognizant plant staff or corrective actions initiated until the latter part of December 1988. As a result, more than 90 days transpired before corrective actions were initiated.

This is a Severity Level IV violation (Supplement I)."

RESPONSE TO VIOLATION

As stated in the response to Violation II, upon discovery of the improper routing of the ESW discharge valve control cables a PR was initiated on September 15, 1988, as required by our corrective action procedures. On or shortly after September 15, 1988, corporate reviewers, with the assistance of a fire protection engineer, discussed compensatory measures for the condition identified in the PR. It was concluded at that time that no measures beyond those already in place were required. This fact, however, was not formally communicated to plant personnel until December 30, 1988.

The memorandum of December 30, 1988, discussed in the inspection report as providing the compensatory measures for the identified condition, formally notified the plant of the need to comply with the cable vault suppression and detection system Technical Specifications (T/Ss). In addition, the memorandum provided supplemental alternatives from a systems and procedural response standpoint that could also be applied to ensure T/S compliance. It should be noted, however, that compliance with the applicable T/Ss was maintained from the date of the finding (September 15, 1988) until December 30, 1988.

It should also be noted that the LER reporting the cited condition (LER 88-014) was withdrawn on April 6, 1989. By applying the criteria found in Section 5.3.1 of NRC Generic Letter 86-10, "Implementation of Fire Protection Requirements," we found that the spurious operation of ESW discharge valves, and thus the potential loss of the ESW train, was not credible. Therefore, in retrospect, we do not believe the condition represented one in which compensatory measures were required.

Further corrective actions of clearing and tagging the ESW discharge valves open, with the corresponding power supplies isolated, was implemented in early January 1989. This was suggested by the NRC Resident Inspector and was considered prudent, and thus was implemented by plant management. In addition, a design change was initiated for rerouting the ESW cables as was discussed above (reference response to NRC Violation II).

(1) Corrective Actions Taken and Results Achieved

As required by our corrective action procedures, a PR and subsequent investigation was initiated upon discovery of the improper routing of the ESW discharge valve control cables. The PR investigation concluded that all required measures were in place at the time the cited condition was discovered.

(2) Corrective Action Taken to Avoid Further Violation

Upon review of the cited instance we have concluded that existing controls were properly implemented and are sufficient to ensure that violations in this area will not occur. In addition, involved personnel have been instructed as to the importance of prompt communication of PR evaluation results.

(3) Date When Full Compliance will be Achieved

As discussed above, our investigation of the cited instance concluded, at approximately the time of discovery of the improper cable routing, that all required measures were in place at the time the cited condition was found.

