



Nebraska Public Power District

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CNSS940167
April 14, 1994

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: NPPD Response to Inspection Report No. 50-298/93-28

Gentlemen:

This letter is written in response to your letter dated March 15, 1994, transmitting the Notice of Violation resulting from Inspection Report No. 50-298/93-28. Therein you indicated that certain of our activities were in violation of NRC requirements.

Following are the statements of the violations and our responses in accordance with 10 CFR 20.201:

Statement Of Violation

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings."

Contrary to the above, Maintenance Procedure 7.3.1 was not appropriate to the circumstances in that the procedure did not identify which set of contacts the electricians were to test, and reset. Relay DG-REL-DG1(59) spare contacts were adjusted on April 9, 1993, resulting in the live contacts being found out of tolerance on November 8, 1993. The live contacts for Relay DG-REL-DG2(59) were also found out of tolerance on November 8, 1993.

Contrary to the above, Maintenance Procedure 7.3.1 was not appropriate to the circumstances in that it did not specify the frequency of testing of the relays in accordance with the manufacturer's recommendation and no justification for the exclusion was provided.

Contrary to the above, on March 27, 1993 (EDG 2), and April 9, 1993 (EDG 1), both Relays DG-REL-DG2(59) and DG-REL-DG1(59) had their setpoints adjusted, and this activity affecting quality was not accomplished in accordance with Maintenance Procedure 7.3.1, Step 8.2.5, which states, "If AS-FOUND values were not within tolerance, make necessary adjustments per manufacturer's instruction manual, retest

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relay and record AS-LEFT data." The licensee did not perform the manufacturer's instruction manual recommended measurements of the contact wipe.

This is a Severity Level IV violation (Supplement 1) (298/9328-02).

Reason For The Violation

Specialized guidance for setting the subject relays had not been provided in Maintenance Procedure (MP) 7.3.1, Protective Relays Setting and Testing, since the performance of the relays prior to the 1993 Refueling Outage had been satisfactory. Furthermore, the need for specific procedural guidance to set these relays was not recognized due to the lack of feedback regarding procedural inadequacies.

The test frequency specified in the subject procedure had been established during the early stages of plant operation and, apparently, had been based on engineering judgement. No documentation justifying this deviation from the vendor's recommendation could be located. Due to the successful performance of these relays, the need to reassess the vendor manual recommendations was not recognized.

Measurements of contact wipe had also not been performed, since past relay performance had been satisfactory; and there had been no perceived evidence that contact operation had been deficient.

Corrective Steps Which Have Been Taken And The Results Achieved

The correct setting for each of the subject relays was established on November 8, 1993. Both EDGs were subsequently declared operable following the satisfactory performance of Surveillance Procedure 6.3.12.1.1, Diesel Generator Demonstration of Operability Test. This procedure had been modified to verify proper relay operation.

A Corrective Action Review Board (CARB) was formed on November 9, 1993, to evaluate the relay out-of-tolerance conditions and to determine why the previous corrective action had been inadequate. Two immediate recommendations from the CARB were to reset the contact wipe on relay DG-REL-DG2(59), and then to perform a setpoint repeatability test. These actions were performed satisfactorily.

In addition to the above actions, Maintenance Management held discussions with Electric Shop personnel to express the importance of procedural adequacy, and correction of any deficiencies encountered. Also, the subject relays are being tested at the vendor recommended frequency until a documented basis for an extended frequency can be established.

Corrective Steps Which Will Be Taken To Avoid Further Violations

A new test procedure specific to the subject relays has been written and is currently in approval routing. The procedure includes identification of the correct contact to test, verification of contact wipe, and performance of a mechanical inspection. Additionally, various aspects of the relay testing program will be evaluated. The evaluation will include test technician training requirements; adequacy of test procedures for safety-related protective relays; and a review of safety-related protective relay vendor manuals for these relays to verify the adequacy of testing frequency and maintenance. These relays have been previously identified in M.P. 7.3.1. Also, a consulting engineering firm has been contracted to provide a third party review of the Cooper Station relay testing program.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by October 31, 1994.

Statement Of Violation

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," states, in part, "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition."

Contrary to the above, the licensee did not identify the cause and did not take corrective action to preclude repetition for out-of-tolerance conditions identified in March and April 1993 for Relays DG-REL-DG2(59) and DG-REL-DG1(59). On November 8, 1993, Relays DG-REL-DG2(59) and DG-REL-DG1(59) were again found out of tolerance.

Contrary to the above, on November 8, 1993, the licensee's corrective actions taken to identify, clarify, and train personnel on the recognition and classification of conditions involving the inoperability of both EDGs did not preclude a repetition of the untimely classification of both emergency diesel generators being inoperable as an Unusual Event. NRC Inspection Report 50-298/91-27 identified, on July 30, 1991, that with both EDGs inoperable, an Unusual Event had not been declared. During an emergency preparedness walkthrough inspection conducted January 1992, a weakness was identified in the area of emergency classification, in part, because a Shift Supervisor did not recognize that a loss of both on-site EDGs satisfied the emergency action level for a NOUE.

This is a Severity Level IV violation (Supplement I) (298/9328-04).

Reason For The Violation

The root cause analysis of the out-of-tolerance conditions identified in March and April 1993 was not of sufficient depth. The possibility of relay misadjustment caused by either human error, or procedural deficiency, was not considered due to the previous record of satisfactory performance of the relays.

Upon declaring the second diesel generator inoperable, the Shift Supervisor did not adequately evaluate the guidance provided in Emergency Plan Implementing Procedure (EPIP) 5.7.1, Emergency Classification. Had the guidance associated with diesel generator inoperability provided by Attachment 2 of the procedure been consulted, a more timely declaration of the Notification of Unusual Event (NOUE) would have occurred.

Corrective Steps Which Have Been Taken And The Results Achieved

An improved root cause analysis program has been implemented as part of the new Corrective Action Program (CAP). An element of the new process includes training of management, supervisory, and engineering personnel in proper root cause analysis techniques. The new CAP also requires that root cause analyses be performed or reviewed by individuals who have received this training.

Relative to the notification issue, the Shift Supervisor on duty on November 8, 1993, was informed by the Plant Manager of the NOUE condition and was directed to make the declaration. Subsequently, all Shift Supervisors were informed of circumstances surrounding the event, and the requirement to classify the condition as a NOUE. Additionally, since this was the second occasion that the EPIP 5.7.1 terminology "loss of both Emergency Diesel Generators" had been misinterpreted, the wording was revised to use the term "INOPERABLE" for EAL 4.1.2.

Corrective Steps Which Will Be Taken To Avoid Further Violations

The new CAP was implemented on April 4, 1994. Periodic assessments of the program will be performed, as necessary, to ensure management expectations are being achieved.

In addition to the EPIP revision noted above, training in the area of EAL usage in conjunction with the correct use of EPIP 5.7.1 has been conducted and will continue to be emphasized during future Emergency Plan training. Additionally, the untimely classification event will be discussed in Industry Events Training for Operators.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved by June 30, 1994.

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Unresolved Item (298/9328-06)

During the course of the enforcement conference, the District documented the design basis of the automatic start feature of the Emergency Diesel Generators (EDGs) as being concurrent Design Basis Loss Of Coolant Accident (LOCA) and Loss Of Off-site Power (LOOP). This feature was demonstrated prior to startup from the last refueling outage on July 14, 1993. Therefore, the EDGs were operable to meet the design basis event.

At the enforcement conference, a potential concern was discussed regarding the automatic starting and loading of the EDGs in the event that off-site electrical power was lost during an accident while emergency core cooling systems were performing their intended safety function. The NPPD assessment of the potential issue, and corrective actions planned, are addressed below.

ASSESSMENT:

A plant-specific Probabilistic Risk Assessment (PRA) for the LOOP following a DBA LOCA sequence was performed. The mean frequency for core damage was calculated to be $8.92E-14$ /yr, well below the cut-off frequency of $1E-08$ /yr used by the NRC to describe a credible accident and below the required action guidelines specified in NUMARC 91-04.

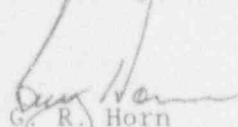
CORRECTIVE ACTIONS:

An engineering study was performed to identify the operator actions required to effectively recover from this postulated event. Subsequently, written instructions were provided to notify and train operators on this scenario.

All operating crews are receiving specialized training on the described event during the current Operations Department training cycle. Training on this scenario is expected to be completed in April 1994. Based on the very low frequency for the accident, no other action is planned.

If you have any questions regarding this response, please contact me.

Sincerely,



G. R. Horn
Vice President-Nuclear

cc: U. S. Nuclear Regulatory Commission
Regional Office - Region IV

Resident Inspector
Cooper Nuclear Station