



Nebraska Public Power District
Nebraska's Energy Leader

NLS2000109
December 4, 2000

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

Gentlemen:

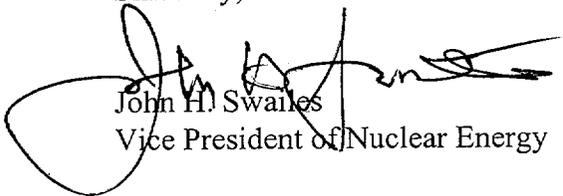
Subject: Reply to a Notice of Violation
NRC Inspection Report 50-298/00-10
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

Reference: Letter to J. H. Swailes (NPPD) from John J. Pellet (USNRC), dated November 2, 2000, "NRC Inspection Report 50-298/00-10 and Notice of Violation"

Per the referenced letter dated November 2, 2000, the Nuclear Regulatory Commission (NRC) cited Nebraska Public Power District (District) for being in violation of NRC requirements. This letter, including the Attachment, constitutes the District's reply to the referenced Notice of Violation in accordance with 10 CFR 2.201. The District admits to the violation and has completed the corrective actions necessary to restore Cooper Nuclear Station (CNS) to full compliance.

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

Sincerely,



John H. Swailes
Vice President of Nuclear Energy

Attachment

IEDI

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cc: Regional Administrator
USNRC - Region IV

Senior Project Manager
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector
USNRC

NPG Distribution

Records

REPLY TO NOTICE OF VIOLATION

During NRC inspection activities conducted from August 21, 2000, through September 21, 2000, a violation of NRC requirements was identified. The violation and the District's reply are set forth below:

Violation

Criterion XVI of 10 CFR Part 50, Appendix B, states, in part, that measures shall be established to assure that conditions adverse to quality and nonconformances are promptly corrected.

Contrary to the above, as of September 21, 2000, the licensee's measures did not assure that a nonconformance was promptly corrected. Specifically, the high pressure coolant injection system environmentally qualified protective operating panels were not secured against their gaskets; although, this nonconformance had been identified on November 30, 1999. Additionally, corrective actions to revise maintenance procedures to address environmental qualification aspects of maintenance had not been implemented nor had an analysis to evaluate the discrepant condition been performed.

This violation is associated with a green SDP finding (50-298/0010-03).

Admission or Denial of Violation

The District admits the violation.

Background

The environmentally qualified (EQ) Nutherm high pressure coolant injection (HPCI) panels, which are the subject of this violation, house motor starters and/or disconnect switches for the HPCI system. Because they provide controls for the HPCI system, the components within the panels are designed to be Essential (required for safe shutdown) and Class 1S (Seismic Class 1). The panels function as a mounting and enclosure device for the internal components and the doors are secured by an interlock mechanism. Additional closure devices, i.e., fastener clips, are installed on the panel doors. The panels are seismically qualified. They are located in the HPCI room and in the southeast quad and are required to be qualified in accordance with 10CFR50.49.

A handle on the door of each panel is mechanically interlocked with a disconnect switch, which secures the door in the closed position. During normal plant operating conditions, the handle will engage the disconnect switch in the ON position and the door will be secured in the closed position. When the handle is placed in the OFF position, the door can be opened. The fastener clips are installed to prevent the door from arbitrarily opening when the disconnect switch is in the OFF position. The fastener clips provide personnel safety protection and prevent the introduction of contaminants and moisture when the disconnect switch is in the OFF position. The mechanically interlocked handle mechanism that secures the panel door is seismically qualified. The disconnect switch would only be in the OFF position when the HPCI system is out of service.

The District performed analyses in its program that demonstrated the scope of the environmental effects of various postulated breaks. Specifically, a high energy line break (HELB) analysis was performed in response to IE Bulletin 79-01B, "Environmental Qualification of Class 1E Equipment," issued January 14, 1980, that determined temperature and pressure profiles for areas outside containment. The EQ Nutherm panel internal components were qualified for high radiation and to the steam environment of a HPCI steam line break per the EQ evaluation reports. According to those evaluation reports, satisfying EQ requirements for the components is not dependent on sealing of the Nutherm panels. Door closure, which is effected by the mechanically interlocked handle, is only credited in the EQ evaluation reports to reduce the effects of steam superheat on components. Therefore, the fastener clips are not required for EQ of the HPCI Nutherm panels for either a radiation only or steam environment.

When some of the fastener clips became damaged and could not be engaged, a special step (3.14) was added to Maintenance Procedure 7.3.13.1, Nutherm Starter and Disconnect Inspection. Step 3.14 requires that the panel door be secured with a minimum of two fastener clips, top and bottom, opposite the hinge side. At the time of the inspection in November 1999, it was noted that the panels had door fastener clips engaged at different locations on different Nutherm panels and different than specified by the procedure.

The EQ panels are treated the same (i.e., there is no difference between radiation only and steam environment requirements for the panels). Operations and maintenance personnel may enter these panels at other times for activities such as adjusting relays. Skill of the craft expectations are that the panel door fastener clips will be returned to the configuration that existed prior to when the panel door was opened.

Reason for Violation

Inspection Report 50-298/00-10, identifies three aspects to the violation; 1) the panels not being secured against their gaskets, 2) maintenance procedures not being revised, and 3) detailed analysis of the as-found condition not being performed.

The detailed review of the Nutherm panel EQ evaluation reports, conducted while preparing this violation response, revealed (as previously noted) that the EQ status of the components within the panel is not dependent on the sealing of the panel. As discussed in the Background section, door closure (which is effected by the mechanically interlocked handle) is only credited to reduce the effects of steam superheat. The panel fastener clips are not credited by the EQ evaluation reports. Therefore, the panels not being secured against their gaskets was not a nonconformance from a 10CFR50.49 perspective. There was, however, a corrective action-related nonconformance with respect to the fastener clip procedural requirements. The fastener positioning deficiency was not resolved in a timely manner.

The root cause evaluation of the maintenance procedure issue raised in Inspection Report 50-298/99-16 failed to acknowledge a procedural adherence issue. Fastener clip-related procedural requirements were not consistently implemented which led to varying configurations. Based on interviews of Maintenance personnel, some personnel were aware of an engineering memo that indicated the fastener clips were not required for EQ. When procedure questions arose, reference was made to the memo, without revising the procedure. These actions represented violations of the maintenance procedure regarding fastener clip location and violations of Procedure 0.1, Introduction to CNS Operations Manual, which requires procedure revision if interpretations are required. Because the evaluation failed to acknowledge the procedural issue, corrective actions addressing the issue were not generated, and thus, a procedure revision was not made.

The District also did not adequately analyze the as-found condition. When the issue was identified in 1999, the Operations review of the Problem Identification Report indicated that no Operability Determination/Operability Evaluation (OD/OE) was necessary. The basis provided for not performing an OD/OE was not adequately documented. Since no OD/OE was performed, no detailed analysis was performed. There was an Equipment Qualification Design Input (EQDI) document generated in December 1999 that summarized the reasons the panel doors were required to be closed, but not sealed, to maintain qualification. However, the EQDI was not included in an OD/OE (or in the basis for not performing an OD/OE). The basis for not performing an OD/OE relied on a verbal communication between Operations and the EQ Program Engineer. The panel was still not in conformance with the procedural fastener clip requirements and thus a documented operability determination should have been provided. The absence of a

documented basis for the OD/OE decision represents a lack of adequate standards in documenting equipment operability determinations.

Corrective Steps Taken and the Results Achieved

As previously discussed, the HPCI Nutherm panel doors are not required to be "secured against their gaskets" to assure EQ is maintained. Although the violation mentioned only the HPCI Nutherm panels, the procedural direction concerning fastener clip configuration applies to the 29 EQ Nutherm panels installed on-site. A modification has been completed to the Nutherm panels to address the fastener clip issue and to insure that the panel doors meet procedural closure requirements. The modification entailed removal of the panel door fastener clips except for two on each panel. The design of the remaining fastener clips has been upgraded. The two remaining upgraded fastener clips on each panel are located opposite the door hinge, one in the upper corner and one in the lower corner. With only two fastener clips installed, the Nutherm panels will be consistently returned to the procedurally directed fastener clip configuration after any maintenance or operations activities that result in the panel doors being opened. The configuration of the door panel fastener clips now conforms to Procedure 7.3.13.1, Step 3.14. It should be noted that Inspection Report 99-16 referred to revising procedures such that an operator or technician knew that EQ requirements were different for different panels. As discussed in the Background section, the EQ panels are treated the same. Therefore, there is no need to revise procedures to articulate different EQ requirements for different panels.

With respect to maintenance procedural adherence issues, Electrical Maintenance conducted a tailgate session with crews and supervision regarding procedural adherence as related to interpretation of procedures and steps to take when procedural interpretation difficulties arise. Coaching of the individual responsible for reviewing and approving the evaluation to address the issue with the Nutherm panels, was also conducted. The coaching addressed the appropriate content of problem statements and the responsibility of supervision in reviewing and approving evaluations.

With respect to the analysis issue, a Standing Order was issued on November 15, 2000. The standing order provides clarification and enhancements to the operability determination/operability evaluation process. The Standing Order requires the following:

- Prompt documentation of initial operability calls. Also, as additional data is gathered or new information is discovered, the initial call must be continually evaluated and revised, if needed.

- The basis for not performing an OD/OE be thoroughly documented in a manner such that a third party reviewer can reach the same conclusion, independently.
- The need to perform an OD/OE be evaluated and generic concerns be addressed if a piece of plant equipment is functioning in an unacceptable manner whether the equipment is safety-related or not.

The District will maintain the interim action (Standing Order) concerning the OD/OE process until more permanent corrective actions are in place. A separate evaluation was initiated to address the OD/OE process issue and the evaluation will be completed by December 28, 2000.

Corrective Steps That Will Be Taken to Avoid Further Violations

As discussed above, an evaluation was initiated that will further address the issue with the OD/OE process.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on November 30, 2000, when the modification was completed on the HPCI and the other Nutherm panels.

