Nebraska Public Power District

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January 5, 1984

Mr. John T. Collins
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Dear Mr. Collins:

Subject: Cooper Nuclear Station Panelboard Switch Failure
NRC Docket No. 50-298, DPR-46

Nebraska Public Power District is investigating an electrical panelboard switch installed in a safety-related system that failed testing while attempting to determine its operability in a harsh environment.

The component in question is a fusible switch mounted in a standard General Electric Company Type QMR Panelboard. The panelboard was undergoing environmental testing to prove operability in the expected harsh environment at Cooper Nuclear Station when the abnormality occurred. The testing was performed at American Environments Company, Inc., 17 Commercial Boulevard, Medford, New York 11763 under the Report No. STR-58583-2.

The questionable component mounted in the panelboard had successfully passed mechanical, thermal, and radiation aging, and was undergoing the autoclave (high energy line break simulation) testing when the failure occurred. The switch showed continuity before the test started; however, during the high temperature portion of the steam test, the switch lost continuity for several minutes after which continuity was established again without any outside action.

The GE QMR panelboard consists of the busbars, insulators, and structure which support the fusible switches. Eight fusible switches were installed and tested in the panelboard. Four of the switches were taken from existing GE QMR Panelboards located in the plant, and the other four switches were purchased in 1982 from GE to cover any new switches which may have been installed in the panelboards after original start-up in 1974. The switch that failed the test was one of the four new replacement type switches. The failed switch was a 30 ampere, 250 volt, two pole fusible style QMR switch ordered on NPPD Purchase Order 208667 for use in Switchboard 413-95943. The original panelboards and switches were purchased nonessential through the

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electrical contractor and later upgraded through the QA acceptance process. All of the older style switches successfully completed the entire testing sequence and are qualified for Cooper Station's post-accident environment.

Since none of these switches are installed in a potentially harsh environment at Cooper Station, the District believes there is no operational impact nor immediate corrective action to be taken. Upon completion of the District's investigation, a detailed report and any corrective action will be provided to Region IV.

Should you have any questions or comments, please contact my office.

Sincerely,

Jay M. Pilant
Technical Staff Manager
Nuclear Power Group

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