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Dalwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

June 30, 1980

Mr. James G. Keppler
Director, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RE: Perry Nuclear Power Plant
Final Report Rosemount
Model 510 DU Trip Calibration
Units/1152 Pressure Transmitters

Dear Mr. Keppler:

This letter will serve as the final report as required by 10CFR50.55(e) on the potential significant deficiencies concerning Rosemount Model 510 DU Trip/Calibration Units and Rosemount Model 1152 Pressure Transmitters. GE notified the NRC of this reportable deficiency per 10CFR, Part 21 in May 1980. These items were discussed in a telephone conversation between Mr. W. J. Kacer of The Cleveland Electric Illuminating Company and Mr. Jim Konklin of the Nuclear Regulatory Commission, Region III, Office of Inspection and Enforcement on June 3, 1980.

Description of Deficiency

The Model 510 DU Trip/Calibration Units were manufactured by Rosemount Industries and supplied through the Nuclear Steam Supply System contract with GE. The reportable condition was identified following a letter from General Electric-San Jose to The Cleveland Electric Illuminating Company (PY-GEN/CEI-1291). The trip/calibration unit is used in conjunction with the pressure transmitter to provide high or low trip signals. The trip unit has a common mode failure of an essential switch that determines the trip output logic. A malfunction could open circuit the logic, thereby providing an inoperable signal. As an example, when used as an ECCS water level trip unit, this can result in failure to trip on low water level. Currently the site has identified all Rosemount trip units. The trip units with Serial Numbers 3001 through 4203 will be rebuilt and requalified by Rosemount and returned to the site.

The potential deficient trip units are documented on General Electric's Field Disposition Instruction (FDI) - WNHW Rev. 0 and 1 dated May 2, 1980, and May 20, 1980, respectively. These documents are on file at the Perry Nuclear Power Plant.

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The Model 1152 Pressure Transmitters were manufactured by Rosemount Industries and supplied through the Nuclear Steam Supply System contract with GE. Similarly, the reportable condition was identified following a letter from GE-San Jose to The Cleveland Electric Illuminating Company (PY-GEN/CEI-1291). The pressure transmitter has a potential common mode failure of a capacitor when the transmitter operating temperature is greater than 175°F or when the damping potentiometer is rotated clockwise. The failure is manifested as a drop in transmitter output current up to 10% of the correct current. As an example, when used as a pressure transmitter, this can result in transmitting reactor pressure 10% lower than actual. Currently the site has identified all Rosemount 1152 Pressure Transmitters installed in GE hardware that has been supplied to the site. The amplified boards of the affected transmitters will be replaced per Rosemounts request with replacement amplifier boards.

The transmitters that include the potential deficient amplifier boards are documented on General Electric's Field Disposition Instruction (FDI) - WREC and WNHX Rev. 0 and 1 dated May 2, 1980, and May 20, 1980, respectively. These documents are on file at the Perry Nuclear Power Plant.

The replacing of the amplifier boards and the trip units will begin in September with an anticipated completion date of January 1, 1981.

Very truly yours,

Dalwyn R. Davidson

Dalwyn R. Davidson
Vice President
System Engineering and
Construction

DRD:kd

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cc: Mr. Victor Stello, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555