



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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June 8, 1984

MURRAY R. EDELMAN

VICE PRESIDENT

NUCLEAR

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

RE: Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Deficiency in Nine 480 Volt AC
Circuit Breakers Supplied by
Brown Boveri Electric [RDC 108(84)]

Dear Mr. Keppler:

This letter serves as our interim report pursuant to 10CFR50.55(e) concerning 480 volt circuit breakers furnished by Brown Boveri Electric, having solid state trip devices containing silicon controlled rectifiers (SCRs) which exhibit excessive leakage current. Our evaluation of this condition per Deviation Analysis Report 186 was first reported by Mr. P. Martin of The Cleveland Electric Illuminating Company to Mr. J. McCormick-Barger of your office on May 8, 1984. This report contains a description of the deficiency and the planned course of action for completion of our evaluation for significance.

Description of Deficiency

Brown Boveri Electric (BBE) supplied two hundred sixty-three (263) 480 volt circuit breakers to the Perry Nuclear Power Plant (PNPP), Units 1 and 2. On April 18, 1984, BBE filed a 10CFR21 Report with the Nuclear Regulatory Commission concerning SCRs in the BBE Solid State Trip Devices of the K-600S through K-2000S, K-3000S and K-4000S series of circuit breakers used in Class 1E application at the Limerick Generating Station. These solid state trip devices were exhibiting spurious tripping of the circuit breakers under testing by BBE. On April 26, 1984, BBE informed PNPP via a letter that PNPP was one of the facilities having Solid State Trip Devices located in the Type K-600S through K-2000S, K-3000S and K-4000S circuit breakers. As a result of the testing by BBE on the solid state trip devices, they developed an acceptance test of the output circuits for breakers in service, which was an attachment to the 10CFR21 Report. During late May 1984, the recommended test was performed on-site in accordance with the BBE criteria to determine if the two hundred forty-eight (248) installed solid state trip devices exhibited excessive leakage.

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Nine circuit breakers (six installed in Unit 1 and three installed in Unit 2) were found to have leakage values which will warrant their replacement. The solid state trip devices located in the remaining 480 V circuit breakers were found acceptable.

Corrective Action

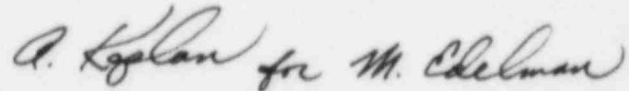
Nonconformance Reports NDS 0045 and NDS 0046 were issued for Unit 1 and Unit 2 respectively, to document our corrective action.

Presently, PNPP is requesting from BBE the procedure and the necessary components for the replacement of the defective SCRs in the solid state trip devices. Once received, PNPP will replace the defective SCRs.

Brown Boveri Electric has agreed to perform the leakage test on fifteen (15) circuit breakers previously returned to BBE for unrelated nonconforming conditions. We plan to submit our final report on this subject by September 7, 1984.

Please call if there are any additional questions.

Sincerely,



Murray R. Edelman
Vice President
Nuclear Group

MRE:pab

cc: Mr. J. A. Grobe
NRC Site Office

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