



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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MURRAY R. EDELMAN

VICE PRESIDENT
NUCLEAR

May 17, 1985

PY-CEI/OIE-0045 LQ

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
Collection of Condensate in
the RCIC Steam Supply Line
[RDC 124(85)]

Dear Mr. Keppler:

This is the final report pursuant to 10CFR50.55(e) on the significant deficiency associated with the collection of condensate in the Reactor Core Isolation Cooling (RCIC) steam supply line. Mr. J. McCormick-Barger of your office was notified on January 23, 1985, by Mr. T. A. Boss of the Cleveland Electric Illuminating Company (CEI) that this problem was being evaluated per Deviation Analysis Report 220. Previous correspondence on this topic was transmitted to your office on February 21 and April 18, 1985.

Description of Deficiency

Two locations exist in the Reactor Core Isolation Cooling (RCIC) steam header where condensate can collect. One location is upstream of the RCIC inboard isolation valve, 1E51F063. Upon initiation of RCIC, the inboard isolation valve opens allowing the steam/condensate to flow into the system piping.

The second location is in the same line, which also supplies steam to the residual heat removal (RHR) heat exchangers in the steam condensing mode. Condensate could collect upstream of the heat exchangers isolation valves, 1E12F052A&B. Upon initiation of RHR in steam condensing mode, this collected condensate could exhibit slug type flow into the piping, the inlet pressure regulator or the heat exchanger tubes.

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Analysis of Safety Implication

Condensate collection in the RCIC steam supply line could result in damage to RCIC system components upon RCIC initiation or RHR system components upon initiation of RHR in the steam condensing mode.

Corrective Action

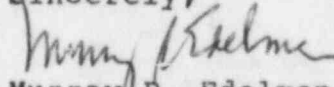
ECN 27859-86-1842 has been issued to provide for drainage of condensate trapped upstream of the RCIC steam supply line inboard isolation valve, 1E51F063. This design change will provide continuous draining of the volume to the main steam line drain system.

The System Operating Instruction for the initiation of the RHR in the steam condensing mode is being modified. The revision will require draining of the condensate trapped upstream of the RHR heat exchanger inlet valves prior to fully opening the inlet valves.

Documentation of the corrective actions taken to correct this deficiency will be available for NRC review when the work is complete.

This is The Cleveland Electric Illuminating Company's final report on this deficiency. If you have any questions, please call.

Sincerely,



Murray R. Edelman
Vice President
Nuclear Group

MRE:pab

cc: Mr. J. A Grobe
USNRC, Site Office (SBB50)

Mr. D. E. Keating
USNRC, Site Office (SBB50)

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