



# THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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MURRAY R. EDELMAN

VICE PRESIDENT  
NUCLEAR

June 10, 1983

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  
Final Report Regarding Cooling  
of the Reactor Core Isolation  
Cooling Room [RDC 72(83)]

Dear Mr. Keppler:

This letter is the Final Report pursuant to 10CFR50.55(e) on the significant deficiency concerning cooling of the Reactor Core Isolation Cooling (RCIC) room during Loss of Cooling Accident (LOCA) conditions. Mr. P. R. Pelke of your office was first notified on May 13, 1983, by Mr. B. D. Walrath of The Cleveland Electric Illuminating Company (CEI) that this problem was being evaluated. On April 29, 1983, Gilbert Associates Inc. (GAI) notified the Nuclear Regulatory Commission, under 10CFR21, of a deficiency in the Reactor Core Isolation Cooling room.

This report contains a description of the deficiency, analysis of safety implication, and the corrective action to be implemented.

## Description of Deficiency

The Reactor Core Isolation Cooling (RCIC) steam turbine driven pump is automatically started at a level 2 condition in the reactor vessel. The RCIC room in which the pump/turbine and accessories are located is cooled with a fan coil unit. The cooling water supply to the fan coil is not automatically activated when the RCIC turbine starts, therefore, the pump/turbine could be operating without adequate room cooling. Without cooling by the fan coil unit the ambient temperature within the room could exceed the maximum operating temperature of the pump/turbine accessories, which would impair the operation of the RCIC pump.

## Analysis of Safety Implications

The RCIC pump is required to operate during a design basis control rod drop accident in order to maintain core cooling prior to reactor depressurization. If the operation of the RCIC pump is impaired due to the maximum operating temperatures of the pump/turbine accessories being exceeded, then this could result in inadequate core cooling following reactor scram.

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Corrective Action

Gilbert Associates, Inc. (GAI), the Architect/Engineer, is reviewing the operation of the RCIC pump/turbine automatic start on level 2 condition in the reactor vessel and will make appropriate changes to provide cooling water to the pump room cooling unit to assure adequate room cooling.

In response to Corrective Action Report 83-06, GAI is performing a review of safety systems to address the generic issue of this event on the Perry Plant design. This review will assure that automatic or manual start of support systems is provided for as required by the design.

We anticipate the above described corrective action to be completed by July 29, 1983.

Please call if there are additional questions.

Sincerely,

*Cyril M. Shuster for*

Murray R. Edelman  
Vice President  
Nuclear Group

MRE:pab

cc: Mr. M. L. Gildner  
NRC Site Office

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