

REQUEST FOR ADDITIONAL INFORMATION

**OPERATING REACTOR PORV
AND ECCS REPORTS**

TMI ACTION PLAN REQUIREMENTS

VERMONT YANKEE NUCLEAR POWER CORPORATION

VERMONT YANKEE NUCLEAR POWER STATION

NRC DOCKET NO. 50-271

FRC PROJECT C5506

FRC ASSIGNMENT 7

NRC CONTRACT NO. NRC-03-81-130

FRC TASK 228

Prepared by

Franklin Research Center
The Parkway at Twentieth Street
Philadelphia, PA 19103

Author: G. J. Overbeck

FRC Group Leader: G. J. Overbeck

Prepared for

Nuclear Regulatory Commission
Washington, D.C. 20555

Lead NRC Engineer: E. Chow

February 19, 1982

DESIGNATED ORIGINAL

Certified By

Shirley M. Harris



Franklin Research Center

A Division of The Franklin Institute

The Benjamin Franklin Parkway, Phila., Pa. 19103 (215) 448-1000

8203240337 820316
PDR ADOCK 05000271
P PDR

INTRODUCTION

This Request for Additional Information (RFI) is the result of an evaluation of the information contained in the Vermont Yankee Nuclear Power Corporation (VYNPC) letter dated December 2, 1980 [1] to the Nuclear Regulatory Commission (NRC) in response to NUREG-0737, Item II.K.3.17, "Report on Outages of Emergency Core-Cooling Systems Licensee Report and Proposed Technical Specification Changes" [2].

The referenced document represents the only Licensee submittal received and available for review at Franklin Research Center (FRC). Preliminary evaluation revealed that additional information is needed before a final evaluation can be accomplished.

BACKGROUND

In NUREG-0737, Item II.K.3.17, the NRC requested that each licensee submit a report detailing dates, lengths, and causes of outages for all emergency core cooling (ECC) systems for the 5 years of plant operation through 1980. The purpose of the request was to obtain a quantitative history of the unavailability of the ECC systems to help the NRC determine if cumulative outage limitations are required in technical specifications.

To clarify the issue, the report was to contain the following details on outages that occurred during the 5 years of plant operation through 1980: (1) dates and durations, (2) causes, including test and maintenance, (3) ECC systems or components involved, and (4) corrective actions taken. In addition, each licensee was to propose changes to improve the availability of ECC system equipment, if necessary.

VYNPC responded to this request in a letter to the NRC dated December 2, 1980 [1].

CONCERN

An ECC system unavailability or outage is one of two kinds, either unplanned or planned. Any unplanned or forced unavailability is reportable as

a licensee event report (LER). A report is not required for planned outages or unavailability for periodic or preventive maintenance and testing.

The technical specifications permit several components of the ECC systems to have substantial outage times. In addition, there are no cumulative outage limitations for ECC systems. Thus, the unavailability of an ECC system train for extended periods is not precluded.

For an evaluation of the responses to NUREG-0737, Item II.K.3.17, to be meaningful and to produce significant conclusions, the responses must be complete and accurate. They must include, for the 5 years of plant operation through 1980, not only the outage dates, durations, and causes, ECC system equipment involved, and corrective actions taken, but also outages of the diesel generators and identification of the ECC system trains affected by the outages. Outages for surveillance testing and for planned, unplanned, and preventive maintenance should also be reported. This information will be used to determine the cumulative outage time of each ECC system train per reactor year and the need for cumulative outage limitations in the technical specifications.

Reference 1 does not appear to include test and preventive maintenance outages which contribute to cumulative ECC system unavailability. VYNPC's response included the cause of equipment malfunctions; however, insufficient detail was provided to determine whether or not the outage was discovered during testing and preventive maintenance activities. The VYNPC response does not provide sufficient information to satisfy the objective of NUREG-0737, Item II.K.3.17.

REQUEST

To enable the staff to continue its review of VYNPC's response to NUREG-0737, Item II.K.3.17, additional information is required.

- o A complete summary of each outage for surveillance testing and preventive maintenance for the 5 years of operation through 1980. For each outage, include the date and duration and the ECC or diesel generator system, train, and component involved.

REFERENCES

1. R. L. Smith
Letter to Office of Nuclear Reactor Regulation
Subject: Response to NUREG-0737, Item II.K.3.17
December 2, 1980
2. NUREG-0737
"Clarification of TMI Action Plan Requirements"
NRC, November 1980