

First Year Operation Report
Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289

1.0 Unit Performance

TMI-1 completed one year of commercial operation on September 2, 1975. A summary of operational experience is contained in the TMI-1 Monthly Operating Reports covering a period of time. Cumulative unit availability and capacity factors of 97.0% and 84.8% respectively were attained. Furthermore, during the first year of commercial operation TMI-1 systems and components performed as predicted except as noted in 2.0 below.

2.0 Reassessment of the Safety Analysis for Substantial Variances from Specifications

Reassessments of the Safety Analysis for substantial variances from specifications have been made on a case by case basis with each of our Nonroutine 30 Day Reports (74-01 thru 74-04 and 75-01 thru 75-08). None of these variances are interrelated to the extent that one variance would have an adverse impact on safety analysis of the other. Further with the below noted exceptions these variances have been corrected and the issues are considered closed.

A. NRR-30 75-06

Dredging operations will begin as soon as the appropriate permits, already applied for, are obtained.

B. NRR-30 75-08

Some insulation conditions that are contributing to increased Reactor Building heat load have been identified and it is anticipated that these will be corrected during the upcoming refueling outage.

3.0 Assessment of the Performance of Structures, Systems and Components Important to Safety.

The Reactor Building Structural Integrity Test (SIT) Report, the Preoperational Integrated Leak Test Report, and the Ring Girder Surveillance Test Reports Six Months and One Year after SIT, provide assessments of the performance of the Reactor Building.

All other structures, systems and components important to safety have performed within design predictions except as noted in Abnormal and Nonroutine reports and high lighted below.

A. Hydraulic Shock Suppressors (Snubbers)

Abnormal Occurrence Reports 74-20, 74-23, 74-25, 74-30, 75-03, 75-08, 75-09 and 75-34 all dealt with inoperative snubbers. Most of these occurrences resulted from failure of the snubber seal material. Subsequently a seal replacement and snubber inspection program was initiated at TMI-1. Later, as a result of other industry experience, the NRC requested Technical Specification to require snubber inspection. This request was responded to by our Technical Specification change request No. 19 submitted on August 23, 1975.

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B. Reactor Pressure Instrument Trip Setpoints

Drift of the reactor pressure instrument setpoints has been reported in Abnormal Occurrence Reports 74-24, 75-15, 75-16, 75-19 and 75-26. One of the long term corrective actions associated with these reports was to request a change to the Technical Specifications to allow drift of the setpoints within the limits assumed in the safety analysis. This proposed change will be reviewed for conformance to the recently issued (for comment) regulatory guide 1.105 (Nov. 1975) prior to submission to the NRC.

C. Vent Header System

As a result several Environmental Incident reports involving unplanned radioactive releases from the Vent Header System, the NRC requested that this system be reevaluated and changes be made as necessary to prevent future unplanned releases. In the interim it was requested that changes to the Technical Specifications and operating procedures be made to minimize the possibility of additional releases. The operating procedures have been revised and a request to change the Technical Specifications was submitted on June 13, 1975. Design changes to the Vent Header system are the final approval stages and hardware changes are expected to be complete in May 1976.

4.0 Progress and Status Report on Items Requiring Additional Information

The items requiring additional information have either been addressed and the issues are closed or they are listed below:

A. Anticipated Transients Without Scram (ATWS)

It is our understanding that for the category of plants in which TMI-1 falls this issue is closed until NRC review of previously submitted information is complete.

B. Kidney Filter

The installation of a kidney filter system will be accomplished during the up-coming refueling outage.

C. ECCS

This issue has been addressed in our submittals of July 9, July 15, August 8 and October 23, 1975 and is awaiting NRC review.

D. Pressurizer Level

The optimum pressurizer level program to minimize level variations during transients was identified during the Startup Test Program as an area that could be further improved. Although the experienced level variations during load transients are acceptable it is felt that the response could be further optimized. At this point it is felt that a means to optimize performance has been determined and should be implemented by May 1976.

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E. Main Steam Safety Valves

During the Startup Test Program it was felt that the relief settings of these valves could be adjusted to improve plant response to transients. Optimum settings for these valves have been determined and the valves have been appropriately adjusted.

F. Accidental Drop of a Spent Fuel Cask

This issue was identified as requiring additional information on August 23, 1974, when Met-Ed was requested to provide additional information in this area. Subsequently our letter of Feb. 21, 1975 provided most of the requested information, the remainder will be submitted by Jan. 31, 1976.

G. Reactor Vessel Support System

A response to the NRC request for information (Oct. 15, 1975) is being prepared at this time.

H. TMI Dikes and Rip Rap

This issue has been addressed and a status report was submitted on Sept. 29, 1975.

I. Sodium Thiosulfate and Sodium Hydroxide Tank Drawdown Times

This issue has been addressed in our letter of Oct. 13, 1975.