NUCLEAR SAFETY AND COMPLIANCE COMMITTEE REPORT NO. 1

to the

GPU NUCLEAR BOARD OF DIRECTORS

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APPROVED:

R. V. Laney

L. L. Humphreys

W. F. Witzig

8411060121 841101
PDR ADOCK 05000289
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CONTENTS

I. SUMMARY

Committee activities between the date of its formation, February 23, 1984, and the present were conducted in two phases. During Phase I a staff was interviewed and hired through contract with the NUS Corporation, and a plan of activities was developed. A seven-man staff, reporting to the Committee, is now functioning at the TMI-1 and Oyster Creek stations.

In Phase II, beginning July 1, the Committee began overviews of training, operations, and maintenance. Special evaluations were conducted of events leading to the NRC's February 29, 1984 Notice of Violation at TMI-1; possible impact of TMI-2 on TMI-1 under emergency conditions; and procedures for readiness to restart at TMI-1 and Oyster Creek. The results of these evaluations are discussed in this report.

In the course of its evaluations the Committee made several observations which are also reported herein for use by GPU Nuclear management.

The Committee and staff observed no non-compliances. Safety attitudes and practices are satisfactory.

II. TMI-1

A. Root Causes of February 29, 1984 NRC Notice of Violation at TMI-1

The Committee was interested in two technical specification violations related to maintaining containment integrity: (1) a non-automatic containment isolation valve (IA-V20) was not closed; and (2) another non-automatic containment isolation valve (FS-V405) was not closed and the open-ended connection downstream was not capped. An earlier check of containment integrity had erroneously indicated these valves to be closed as required.

The March 30 response by GPU Nuclear to the Notice of Violation attributes the valve problems to personnel error. Neither the operator nor the engineer who checked valve IA-V20 recognized that the backed-out stem bushing nut was blocking complete closure. In the case of FS-V405, the operator did not properly reclose the valve and install its cap following local leak rate testing.

The Committee agrees with management's finding of personnel error. The Committee also agrees with the remedial actions, including increased emphasis on procedure adherence and changes in the Containment Integrity Checklist to require an examination for obstructions that could prevent full closure. We note that, after the problem was discovered, twenty days passed before repairs to IA-V20 were completed. This time appears too long; the Committee therefore recommends a review of repair priorities used for safety related components.

Despite the failures noted above, in each case a secondary boundary valve was closed and no actual physical violation of containment occurred.

B. TMI-1/TMI-2 Interactions in Emergency Plans and Procedures

The Committee conducted an overview of TMI-1/TMI-2 interactions to determine if emergency plans and procedures adequately provide for the safety of Unit 1 in the event of

an incident at Unit 2, and to review physical interties between Unit 1 and Unit 2 to determine if any of them might pose a threat to Unit 1.

The Committee finds that Emergency Plans and Procedures are adequate for handling emergencies within each unit's domain. Numerous emergency exercises have demonstrated that the procedures of each unit are understood and implemented. The Committee notes that the Unit 1 Control Room is designated as the backup Technical Support Center for Unit 2. We believe that this designation is questionable and should be reviewed by management.

A review of physical interties between Unit 1 and Unit 2 reveals that there are several liquid radwaste valves which must be maintained closed in order to assure plant-to-plant separation. Surveillance procedures for verifying these valve positions -- visual check for pulled fuses and disconnection of actuating air lines -- are inconclusive in that they do not confirm actual valve positions. The Committee concludes that the valve designs preclude obtaining positive assurance of valve closure. We therefore recommend that management consider some means of positive separation, for instance by blank flanges or removable spool pieces.

C. TMI-1 Training

During the week of September 10, 1984, the Committee staff conducted an overview of TMI-1 operator training programs, including simulator activities. The programs were found to be competent and thorough. There were no observations of safety significance. Training evaluation continues, with focus on safety and compliance.

D. TMI-1 Operations

The Committee's operations overview concentrated on assessment of safety attitudes and procedure compliance in operations and on readiness for restart. Initial observations indicate that the operations staff conducts itself in

a professional manner and shows a positive attitude toward safe operation and adherence to procedures. Daily planning meetings were observed to be brief and efficiently conducted. Excellent plant cleanliness is another positive indicator of a sound operating approach.

The Committee staff evaluated the TMI-1 Readiness to Restart Program, focusing on adequacy of program coverage and the process of execution. No safety or compliance issues were identified. The process provides reasonable assurance that prerequisites will be identified and completed.

The Committee believes that preparations for restart are satisfactory.

Operations evaluation continues with particular attention to safety and compliance.

III. OYSTER CREEK

A. Oyster Creek Operator Requalification Training Program

The Committee and its staff conducted an overview of the licensed operator requalification program to assess improvements being made. We note that both immediate and long-term action plans are underway to strengthen the requalification program. The immediate need has been met by implementing an Accelerated Requalification Program, reexamination, and oral boards for those individuals who had problems on earlier requalification examinations. These efforts have been successful in all applicable cases.

There is a commitment to provide training review material on plant systems, procedures, nuclear theory, thermal hydraulics, heat transfer, and fluid flow for future requalification programs. Requalification training of all licensed reactor operators has been raised to the highest priority by Plant Operations.

The Committee and its staff observed no items of noncompliance or safety significance.

The Committee notes that the current five shift rotation makes it difficult to complete all training requirements. We endorse the management's plan to implement six shift rotation.

B. Oyster Creek Operations

The Committee and its staff have made a preliminary assessment of compliance with safety procedures and safety attitudes in the Operations Department, and have evaluated the Restart Certification Program.

Adherence to safety procedures by operators is observed to be satisfactory. Knowledge and professionalism are evident. No non-compliances or safety related observations were made.

The Restart Certification Program is comprehensive in scope, with appropriate attention being accorded those areas of plant operation which are related to restart. The membership of the Restart Readiness Committee includes all essential areas of management and technical expertise.

Operations evaluation continues with focus on safety and compliance.

C. Oyster Creek Maintenance

The Committee and its staff have made a preliminary overview of maintenance activities. We found no non-compliances and have no safety related observations.

In the course of this review we find that the present Important to Safety (ITS) list, which designates ITS systems without further breakdown, is inadequate to support efficient maintenance activities. Its use may lead to inconsistent or incorrect classifications. The Committee endorses present activities to prepare and implement a component level ITS data base plan for Oyster Creek and TMI-1.

Review of procedures concerning post maintenance testing indicates that they do not consistently specify if a test is or is not required after maintenance. As a consequence, the decision to test is left to the discretion of the supervisor after maintenance is completed. It is suggested that Oyster Creek management review this matter.

Maintenance overview for safety and compliance continues.