

U. S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION I

RO Inspection Report No.: 50-289/73-18

Docket No.: 50-289

Licensee: Metropolitan Edison Company

License No.: CPPR-40

Three Mile Island - Unit 1

Priority: _____

Category: B.1

Location: Middletown, Pennsylvania

Type of Licensee: B&W 871 MWe (PWR)

Type of Inspection: Routine

Dates of Inspection: October 3-5, 1973

Dates of Previous Inspection: October 2-5, 1973

Reporting Inspector: R. H. Brickley

R. H. Brickley, Reactor Inspector

10/12/73
DATE

DATE

Accompanying Inspectors: R. L. Spessard

R. L. Spessard, Reactor Inspector

10/12/73
DATE

DATE

Other Accompanying Personnel: _____

DATE

Reviewed By: E. J. Brunner

E. J. Brunner, Chief, Facility Test and Startup Branch

10/15/73
DATE

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SUMMARY OF FINDINGS

Enforcement Action

A. Violations

The licensee failed to follow his document control instructions during the issuance of preoperational test procedure TP 305/2 in apparent violation of 10 CFR 50, Appendix B, Criterion V (Details, Paragraph 2.a.(1)).

B. Safety

None identified relative to test and startup activities

Licensee Action on Previously Identified Enforcement Items

None required relative to test and startup activities.

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

1. Information obtained during the inspection revealed the following with respect to project status:
 - a. All systems required to support initial fill and hydro of the Reactor Coolant System have been constructed and released to Startup for testing.
 - b. Preoperational testing of all systems required to support installation of the Reactor Vessel Head (preparatory to initial fill and hydro of the Reactor Coolant System) have been completed.
 - c. Installation of the Reactor Vessel Head and Stud Tensioning is scheduled to begin on October 5, 1973.
 - d. Initial fill of the Reactor Coolant System is scheduled to begin on October 15, 1973, and the hydrostatic test of the Reactor Coolant System is scheduled to begin on October 28, 1973.
 - e. Hot functional testing is scheduled to begin on January 2, 1974, and fuel loading is scheduled to begin on March 22, 1974.

B. Status of Previously Reported Unresolved Items

No change

Management Interview

An exit interview was conducted on October 5, 1973 at the conclusion of the inspection. Items discussed and personnel in attendance were as follows:

Licensee's Representatives

J. Herbein, Assistant Plant Superintendent, Met. Ed.
G. Miller, Test Superintendent, GPUSC

RO:I Representatives

R. Brickley
L. Spessard

A. Preoperational Test Procedures

1. Inspection findings relative to the review of TP 202/3, TP 305/1B, and TP 330/2 were discussed. (Paragraph 2.a)
2. Inspection findings relative to an apparent violation of 10 CFR 50, Appendix B, Criterion V during the issuance of TP 305/2 were discussed. (Paragraph 2.a.(1))
3. Inspection findings relative to the review of tests recently completed and accepted by the Test Work Group (TWG) were discussed. (Paragraph 2.b)
4. Inspection findings relative to the review of procedure history files for implementation of TI-18 were discussed. (Paragraph 2.c)
5. Inspection findings relative to the review of TWG and PORC meeting minutes were discussed. (Paragraphs 2.d and 2.e)

B. Control of Combustible Material in the Reactor Building

The inspector stated it was his understanding, based on information received during this RO inspection, that prior to Hot Functional Testing all combustible material would be removed from inside the primary and secondary shield walls and that combustible material located outside these areas would not be in close proximity to systems/components carrying hot fluid. The inspector further stated it was his understanding that this matter would be controlled by adding it to the Prerequisite List for Hot Functional Testing. The licensee representatives acknowledged the inspector's understandings.

C. Generic Testing

Inspection findings relative to the review of TCN-3 to TP 250/2 were discussed. (Paragraph 3)

D. Providing Test Program Documents to RO:1

The inspector stated that approved test program documents (Test Procedures, Prerequisite Lists, Test Schedules, Test Managing Assignments, and Test Instructions) needed to be provided to RO:1 in a timely manner. In this regard, the inspector stated that TP 202/3 Makeup and Purification System Functional Test had not been provided to RO:1 in a timely manner in that the TP had been approved on September 19, 1973 and portions of the test had been conducted prior to this RO inspection. Licensee representatives acknowledged this matter.

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DETAILS

1. Persons Contacted

Metropolitan Edison Company

R. Klingaman, Plant Superintendent
J. Herbein, Assistant Plant Superintendent

General Public Utilities Service Corporation

J. Barton, Startup and Test Manager
G. Miller, Test Superintendent
R. Toole, Assistant Test Superintendent
M. Nelson, Technical Engineer
R. Claussen, Lead Engineer - Instrument and Controls
W. Bateman, Lead Engineer - Mechanical

2. Preoperational Test Procedures

a. RO:I Review of Preoperational Test Procedures

The inspector discussed his review of the following preoperational test procedures:

TP 202/3 - Makeup and Purification System
TP 305/1B - Reactor Protection System Preoperational Calibration
TP 305/2 - Reactor Protection System Response Time
TP 330/2 - C. R. D. Control System

Resolution was obtained on all items except the following:

(1) TP 305/2 - Reactor Protection System Response Time

Numerous pen and ink type changes were made throughout this procedure without identification as to the individual making the changes, when the changes were made, and that these changes were authorized.

The licensee's representative stated that the marked up copy of the procedure was the one reviewed and approved by the TWG for official issuance.

The inspector requested, received, and reviewed the history file for this procedure. This review revealed that the licensee failed to follow test instruction TI-18, Test Procedure Documents, in that:

- (a) The procedure did not receive a preliminary review by the TWG as required by Part I-Section 2.1.4, and Part III-Step 9 of Enclosure 1.

- (b) The GPU Test Auditor had not reviewed the procedure and submitted his comments prior to final approval by the TWG as required by Part III-Step 12 of Enclosure 1.
- (c) The Test Superintendent did not obtain and present the results of the GPU Test Auditor's review at the final TWG meeting as required by Part III-Step 19 of Enclosure 1.
- (d) A marked up copy of this procedure, rather than the smooth copy that was reviewed and approved by the TWG, was issued as the "Official Field Copy" in noncompliance with Part III-Step 21 of Enclosure 1.

The inspector compared parts of the marked up copy that has been erroneously issued against the smooth copy that had been approved and found the two to be identical.

The licensee was informed that, in view of the above findings and discussions with their representatives that indicated a possible misinterpretation of the requirements of TI-18, RO:I would reexamine this document for areas that need clarification. The licensee responded that they also intended to reevaluate TI-18 and revise it to provide more definitive requirements.

b. Review of Preoperational Test Results

The inspector reviewed the completed test packages as accepted by the licensee and is satisfied with the documentation of performance and results of the following tests:

F1104/29Y - Liquid Waste Disposal System - Operation and Use of Precoat Filters

F1104/34 - Turbine Lubrication Oil Conditioner & Supply Functional Test

F1104/3 - Condensate Chemical Feed

F1106/13 - Powdex Filter System

F1104/35 - Circulating Water Chlorination & Chemical Feed

SP143.17 - Steam Generator Initial Nitrogen Purge, Fill, and Flush, and Wet Lay-up.

c. Review of Preoperational Test Procedure History Files

The inspectors reviewed the following preoperational test procedures history file for implementation of TI-18:

TP 160/3 - Reactor Building Purge

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TP 203/4 - Decay Heat Removal System Functional Test

TP 305/2 - Reactor Protection System Response Time

The inspector found documentation to indicate implementation of TI-18 for TP 160/3 and TP 203A. The requirements of TI-18 were not completely implemented in the case of TP 305/2 (Reference Paragraph 2.a.(1)).

Review of TWG Minutes

The inspector reviewed TWG meeting minutes for the period August 1 through September 24, 1973 (Meetings No. 56 through 62). The following observations were made:

- (1) TWG actions relative to approval of test procedure scopes, test procedures, TCN's to the MTX and test procedures, test results, and the Prerequisite List for Initial Fill and Hydro of the Reactor Coolant System were documented; however, the inspector was unable to determine which version (Draft 1, 2, 3 etc) of the test procedure had been reviewed and approved.
- (2) Comments by individual TWG members relative to test procedures and resolution of these comments, as appropriate, were documented in the meeting minutes.
- (3) A TWG quorum was present at each meeting, and the Met Ed Test Auditor was present at meetings No. 57 and 60.

Based on the above observations, the inspector concluded that the TWG was functioning in accordance with the requirements of the Test Manual.

e. Review of PORC Minutes

The inspector reviewed the PORC meeting minutes for the period August 8 through September 24, 1973 (Meetings No. 186 through 194). The following observations were made:

1. A PORC quorum was present at each meeting.
2. PORC actions relative to their review of test procedures and results were documented; however, the inspector was unable to determine which version (Draft 1, 2, 3 etc) had been reviewed.

3. Generic Testing

The inspector reviewed TCN-3 to TP 250/2 Testing and Checking of Mechanical and Electrical Equipment dated September 21, 1973 which was approved on September 24, 1973 in accordance with the Test Manual. This TCN revised data sheets ME-1, ME-2, ME-3, and MV-2 to include, as appropriate, provisions for identifying and recording the test equipment used during the performance of these

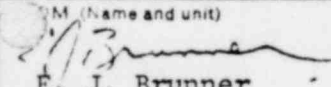
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generic tests and for identifying vibration readings taken on the pump outboard bearing. The previous RO:1 findings relative to these matters are resolved.*

*RO Inspection Report No. 50-289/73-15, Paragraph 7.e

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MEMO ROUTE SLIP Form AEC-93 (Rev. May 14, 1947) AECM 0240		See me about this. Note and return.	For concurrence. Signature.	For action. For information.
TO (Name and unit) RO Chief, FS&EB, HQ RO:HQ (5) GC RO Files	INITIALS DATE	REMARKS METROPOLITAN EDISON COMPANY THREE MILE ISLAND UNIT 1 REPORT NUMBER 50-289/73-18		
TO (Name and unit) Central Mail & Files Regulatory Standards Directorate of Licensing (13)	INITIALS ✓ (3) DATE	REMARKS The above inspection report is forwarded for information. Distribution will be made by this office to the PDR, Local PDR, NSIC, DTIE,		
TO (Name and unit) Regional Directors,	INITIALS RO (4) DATE	REMARKS and State Representatives after review by the licensee for proprietary information.		
FM (Name and unit)  E. J. Brunner Region I	REMARKS			
PHONE NO. 8-337-1264	DATE 10/18			

USE OTHER SIDE FOR ADDITIONAL REMARKS

GPO : 1971 O - 445-453

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