

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

POOR ORIGINAL

Report No. 50-289/78-12  
50-320/78-22  
Docket No. 50-289  
50-320  
License No. DPR-50  
DPR-73 Priority -- Category C  
B2  
Licensee: Metropolitan Edison Company  
P. O. Box 542  
Reading, Pennsylvania 19603

Facility Name: Three Mile Island Nuclear Station, Units 1 and 2

Inspection at: Middletown, Pennsylvania

Inspection conducted: May 30 - June 2, 1978

Inspectors: *R. J. Conte* 6/22/78  
R. J. Conte, Reactor Inspector date signed

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date signed

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date signed

Approved by: *R. R. Keimig* 6-27-78  
R. R. Keimig, Chief, Nuclear Support date signed  
Section No. 2, RO&NS Branch

Inspection Summary:

Inspection on May 30 - June 2, 1978 (Report No. 50-289/78-12)

Areas Inspected: Routine, unannounced inspection of administrative controls of facility procedures; format and technical content of facility procedures; procedure revisions resulting from Technical Specification Amendments; procedure revisions made in accordance with 10 CFR 50.59(a) and (b); standing orders, special orders, and temporary procedures; and, licensee action on previous inspection findings. The inspection involved 22 inspector-hours on site by one NRC inspector.

Results: Of the six areas inspected, no items of noncompliance were found in five areas; one apparent item of noncompliance was found in one area (Deficiency - failure to properly approve a temporary change, Paragraph 5.c).

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Inspection on May 30 - June 2, 1978 (Report No. 50-320/78-22)

Areas Inspected: Routine, unannounced inspection of administrative controls of facility procedures; format and technical content of facility procedures; procedure revisions made in accordance with 10 CFR 50.59(a) and (b); and, standing orders, special orders, and temporary procedures. The inspection involved 15 inspector-hours on site by one NRC inspector.

Results: No items of noncompliance were identified.

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## DETAILS

### 1. Persons Contacted

- \*M. Bezilla, Unit 2 Plant Operations Review Committee (PORC) Secretary
- J. Floyd, Unit 2 Supervisor of Operations
- C. Hartman, Lead Electrical Engineer, PORC Vice Chairman
- \*G. Kunder, Unit 1 Superintendent, Technical Support
- G. Lawrence, Instrument and Control Maintenance Supervisor
- B. Mehler, Shift Supervisor
- \*M. Ross, Unit 1 Supervisor of Operations
- \*J. Seelinger, Unit 2 Superintendent, Technical Support
- \*M. Shatto, Unit 1 PORC Secretary

Several other members of the operations, technical support, and administrative staffs were also interviewed.

\* denotes those present at the exit interview.

### 2. Licensee Action on Previous Inspection Finding

(Closed) Unresolved Item (289/77-28-01): Resolution of Low Flow Alarm Calibration for High Pressure Injection Flow Channels, Revision 1, dated November 17, 1977. Surveillance Procedure SP-1302-5.18, High and Low Pressure Injection Flow Channel, now incorporates a workable procedure to calibrate the low flow alarm associated with the High Pressure Injection Channels. This calibration has been satisfactorily completed on November 23, 1977, and March 30, 1978.

### 3. Administrative Controls of Facility Procedures

Administrative controls were reviewed to determine the licensee's system for implementing requirements associated with the control of facility procedures as specified in Technical Specification, Section 6; Regulatory Guide 1.33, Quality Assurance Program Requirements; and, ANSI N18.7, Administrative Controls for Nuclear Power Plants. Areas of emphasis were in the established controls for format, content, review (including periodic review), and approval of facility procedures.

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The following documents were reviewed:

- 1001, Revision 3, March 30, 1978, Document Control;
- 1032, Revision 0, August 29, 1977, Dissemination of Information; and,
- 1033, Revision 0, September 27, 1977, Operating Memos and Standing Orders.

No items of noncompliance were identified.

4. Technical Content of Facility Procedures

Facility procedures were reviewed on a sampling basis using FSAR System Descriptions, Piping and Instrument Diagrams and Technical Specifications, where necessary, to verify that procedures were sufficiently detailed to control the operation or evolution described within Technical Specification Requirements. The procedures reviewed with respect to this area are marked by asterik (\*) in the next paragraph (Paragraph 5, Review of Facility Procedures).

5. Review of Facility Procedures

- a. Facility procedures were reviewed on a sampling basis to verify the following:
- Procedures, plus any changes, were reviewed, approved, and retained in accordance with the requirements of the Technical Specifications and the licensee's administrative controls;
  - The overall procedure format and content were in conformance with the requirements of the Technical Specifications and ANSI N18.7, "Administrative Controls for Nuclear Power Plants;"
  - Checklists, where applicable, were compatible with the stepwise instructions in the procedures;
  - Appropriate Technical Specification limitations had been included in the procedures; and,

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- Temporary changes were made in conformance with Technical Specification requirements and the licensee's administrative controls. (This temporary change review included procedures in addition to those listed below.)

b. The following procedures were reviewed:

Unit 1 Procedures

Operating Procedures

- \*-- 1102-1, Revision 29, May 17, 1978, Plant Heatup to 525°F;
- 1103-6, Revision 14, April 25, 1978, Reactor Coolant Pump Operation;
- 1104-8, Revision 9, May 9, 1978, Intermediate Cooling System;
- \*-- 1106-6, Revision 11, January 5, 1978, Emergency Feed;
- 1104-19, Revision 2, May 24, 1974, Control Building Ventilation System;

Emergency Procedures

- 1202-17, Revision 0, September 28, 1973, Loss of Intermediate Cooling System;
- \*-- 1202-26A, Revision 3, October 26, 1976, Loss of Steam Generator Feed to Both OTSG's (Once Through Steam Generators);
- \*-- 1202-26B, Revision 3, June 17, 1975, Loss of Steam Generator Feed to One OTSG;

Alarm Response Procedures

- \*-- Panel E-1-4, Revision 0, July 10, 1974, RC Pump Seal Leak Off Flow Hi/Lo;
- \*-- Panel D-2-2, Revision 0, July 10, 1974, IC (Intermediate Cooling) System Flow Lo;

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- Panel LEFT B-8-4, Revision 0, July 10, 1974, Emergency Feed Pump Room B Sump Level High;
- \*-- Panel A-6-24, Revision 0, July 10, 1974, Control Building Shift Foreman Room Fire-Smoke;

Maintenance Procedures

- 1401-Y-1.1, Revision 3, October 26, 1976, RC Pump Seal Inspection and Repair;
- \*-- 1410-C-1, Revision 0, September 29, 1976, Heat Exchanger Inspection and Cleaning;
- 1401-1.3, Revision 0, November 2, 1973, Reactor Coolant Pump Motor Removal and Installation;

Unit 2 Procedures

Operating Procedures

- 2102-1.2, Revision 3, February 10, 1978, Approach to Criticality;
- 2107-1.2, Revision 5, May 10, 1978, Class IE Electrical System;
- \*-- 2105-1.1, Revision 1, February 13, 1978, Nuclear Instrumentation;
- 2105-1.2, Revision 3, May 10, 1978, Reactor Protection System;

Emergency Procedures

- \*-- 2202-14, Revision 4, Loss of RC Flow/RC Pump Trip;
- 2202-1.1, Revision 3, Reactor Trip;

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Alarm Response Procedures

- \*-- 2204-19.C1, Revision 1, April 9, 1977, DC Bus 2-1 DC Voltage Lo;
- \*-- 2204.8.E17, Revision 1, December 27, 1977, Red Channel Trip (Channels of the Reactor Protection System are Color Coded);
- \*-- 2204.8.E18, Revision 0, September 14, 1976, Red Channel Shutdown Bypass;
- \*-- 2204.8.E19, Revision 1, September 14, 1976, Green Channel Trip;
- \*-- 2204.8.E20, Revision 0, September 14, 1976, Green Channel Shutdown Bypass;

Maintenance Procedures

- 2405-4.2, Revision 0, April 5, 1977, 250V DC Breaker Maintenance;
- 2403-1.1, Revision 0, November 8, 1977, Nuclear Detector Removal/Replacement;
- 2401-1.5, Revision 1, September 8, 1977, Use of Freeze Seals;

Procedures Common to Units 1 and 2Administrative Procedures

- 1007, Revision 3, February 13, 1978, Control of TMI (Three Mile Island) Records;
- 1019, Revision 2, December 22, 1975, Qualification of Personnel Performing Special Processes;

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Maintenance Procedures

- \*-- 1410-V-20, Revision 0, March 20, 1978, Inspect and Repair Butterfly Valves;
  - E-18, Revision 1, October 6, 1977, Battery Chargers - Annual Inspection;
  - E-3, Revision 1, March 27, 1978, Preventative Maintenance Inspection for AC Induction Motors; and,
  - 1430-Y-13, Revision 0, January 7, 1977, Flow Indicator Repair and Calibration.
- c. The inspector determined that a Unit 1 Temporary Change (TC) had not been reviewed by the Plant Operation Review Committee (PORC) nor approved by the Unit 1 Superintendent as of June 1, 1978. This TC, documented on TC Notice 78-190, affected the Reactor Protection System Operating Procedure and became effective May 12, 1978. The licensee representative could not determine why the documentation associated with this TC was not presented to the PORC for review.

Subsequent to the inspector's identification of this noncompliance, the Unit 1 PORC reviewed and recommended for approval TCN 78-190, and the Unit 1 Superintendent approved the change on June 2, 1978.

This represents an item of noncompliance (Deficiency Level) with Unit 1 TS 6.8.3.c. (289/78-12-01)

- d. Temporary Changes (TC) to procedures common to both units, e.g., Administrative Procedures, were reviewed to ensure that these changes were approved by a Senior Reactor Operator (SRO) licensed for each unit or by a SRO licensed on both units. During a review of Unit 2 PORC Meeting Minutes, it was identified that two TC's approved by a SRO, licensed for Unit 1 only, were effective in Unit 2 for approximately two days without approval of a SRO licensed for Unit 2. The Unit 2 PORC subsequently approved the use of these TC's at Unit 2 and evaluated this discrepancy. (These TC's were judged to be minor in nature.) As a result of this evaluation, responsible personnel were counseled on the established administrative controls in this area.

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The inspector reviewed other TC's for similar circumstances, however, none were identified. In addition, the inspector determined that administrative controls in this area are adequate to preclude recurrence assuming personnel follow these procedures.

The inspector stated that this area will be reviewed in a subsequent inspection to ensure that the implementation of procedures for TC's common to both units is maintained.

No items of noncompliance were identified.

6. Standing Orders, Special Orders, and Temporary Procedures

The inspector reviewed licensee Orders/Procedures which are categorized as Standing Orders, Special Orders, or Temporary Procedures as defined in ANSI 18.7, "Administrative Controls for Nuclear Power Plants," to determine that:

- The content of the Order/Procedure was compatible with ANSI 18.7 definitions; and,
- Provisions exist for approval, periodic review, updating, and cancellation of these Orders/Procedures.

The inspector identified that the following types of licensee documents were issued in this area: "Superintendents' Operating Memos;" "Department Operating Memos;" and, "Special Operating Procedures."

No items of noncompliance were identified.

7. Changes to Procedures as Described in the Safety Analysis Report Pursuant to 10 CFR 50.59(a) and (b)

The inspector reviewed licensee records to identify changes to procedures which are described in the Final Safety Analysis Report (FSAR) and to verify that these changes, if any, were reviewed and maintained by the licensee in accordance with 10 CFR 50.59(a) and (b). Records reviewed were associated with the procedures noted in the previous paragraph (Paragraph 5, Review of Facility Procedures) and included the licensee's Procedure History File and Onsite Safety Committee Meeting Minutes File.

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Of the procedures/changes to procedures sampled, the inspector did not identify any change to procedures as described in the FSAR. It was noted that the licensee has established administrative controls for such changes and that these controls do not conflict with 10 CFR 50.59 requirements.

8. Procedure Changes Resulting from License Amendments

Unit 1 License Amendments (22 through 39), which included Technical Specification (TS) Changes, were reviewed to verify that applicable procedures were revised as necessary to reflect these changes.

Amendment 32 effective December 16, 1977, incorporated Fire Protection System Limiting Conditions of Operations/Surveillance Requirements and Administrative Controls into the Unit 1 TS. The inspector verified that appropriate procedures had been approved and issued covering these surveillance requirements except for certain requirements with a 3 year periodicity. A licensee representative stated that these procedures are written, are pending approval, and will be issued shortly.

The inspector considered this acceptable and stated that this area will be reviewed during a subsequent inspection.

Unit 2 License Amendments were not reviewed since this has been performed as a part of more frequent operations review conducted since issuance of the operating license February 8, 1978.

No items of noncompliance were identified.

9. Facility Tour

The inspector toured the facilities of both units which included the peripheral boundary of the site protected area, turbine buildings, and control rooms. While in the control room, observations of proper manning levels for both day and evening shifts were made and compliance with selected Technical Specification requirements was verified.

No items of noncompliance were identified.

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10. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on June 2, 1978. The inspector summarized the purpose, scope, and findings of the inspection.

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