

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

Region I

Report No. 50-289/81-33

Docket No. 50-289

License No. DPR-50 Priority -- Category C

Licensee: Metropolitan Edison Company

P. O. Box 480

Middletown, Pennsylvania 17057

Facility Name: Three Mile Island Nuclear Station, Unit 1

Inspection at: Middletown, Pennsylvania

Inspection conducted: December 17 - 18, 21 - 22, 1981

Inspectors: *G. Napuda*
G. Napuda, Reactor Inspector

1/27/82
date signed

G. Holody
D. Holody, Reactor Inspector

1/27/82
date signed

Approved by: *D. Caphton*
D. Caphton, Chief, Management Programs
Section, Division of Engineering and
Technical Inspection

1/29/82
date signed

Inspection Summary:

Inspection on December 17 - 18, 1981 and December 21 - 22, 1981 (Report Number 50-289/81-33)

Areas Inspected: Routine, unannounced inspection by two regional based inspectors of the licensee's training program in the following areas: licensee action on previously identified inspection findings in the area of training; Nureg-0680 items; Nureg-0752 items; Nureg-0694 items; Nureg-0737 items; and Atomic Safety and Licensing Boards Partial Initial Decision Procedural Background and Management Issues. The inspection involved 48 inspector hours onsite by two NRC inspectors.

Results: No items of noncompliance were noted.

Report Details

1. Key Persons Contacted

a. General Public Utilities Nuclear (GPUN)

- * E. Brown, Supervisor, Training Administrative Support
- * N. Brown, Supervisor, Licensed Operator Training
- * J. Fidler, TMI Media Representative
- * W. Heysek, Supervisor, Site Quality Assurance Audits
- * R. Knief, Manager, Plant Training, TMI
- * C. Rowe, Lead Monitor, Operations Quality Assurance
- * C. Smyth, TMI-1 Licensing
- C. Stott, Instructor

b. USNRC

- A. Fasano, Chief, TMI Resident Section
- * F. Young, TMI-1, Resident Inspector

*denotes those present at the exit interview conducted on December 22, 1981.

The inspectors also interviewed other licensee personnel, including those employed in the areas of Administration, Engineering, Quality Assurance, and Training.

2. Licensee Action on Previously Identified Inspection Findings

(Closed) Inspector Follow Item (IFI 289/80-19-05): Completion of STA Training Program for the first group of candidates. The inspector reviewed the training records which indicated that all STAs originally designated as such had completed the required training and successfully passed examinations in the nine areas. These records also indicated successful completion of self-study lesson plans. The inspector also reviewed a selected number of exams taken by the STAs, and no unacceptable conditions were found. All current STAs are currently undergoing SRO requalification. Four additional STAs are currently being trained.

(Open) Inspector Follow Item (IFI 289/80-19-11): Implementation of Training Department Administrative Manual. The inspector reviewed the training manual and found the manual to be incomplete. Additionally, Licensee Audit S-TMI-81-12 (Aug. - Sept. '81) identified this and other deficiencies in the training program. The audit was terminated prior to completion because the identified deficiencies made continuation very difficult (inability to effectively trace records, lack of interfacing programs, etc.). The results of this audit were forwarded to licensee senior management.

(Open) Inspector Follow Item (IFI 289/80-21-12): Adequately address training of personnel in post modification activities. The licensee had recently submitted the Licensed Operator Requalification Training

Program Description TMI-1 to the NRC for approval. Currently, training of licensed operators is being accomplished in accordance with AP 1006, Operator Requalification Program, Rev. 4 that addresses post modification training. Additionally, AP 1043, Engineering Changes Modifications, Rev. 1, establishes a method for determining what other plant staff require post modification training. Since this method was recently established, the inspectors were unable to determine if the method was adequate and effective. This item remains open pending this determination during a subsequent inspection.

(Open) Inspector Follow Item (IFI 289/80-21-22): Inadequacies in the training program for nonlicensed personnel. The licensee has established a training program for nonlicensed personnel. However, sections on instructor development, shift technical advisor training, supervisory development and management development are still in draft form. Additionally, a recent audit (see item 80-19-11 above) identified a number of deficiencies. This item remains open pending verification during a subsequent inspection that the program has been fully established and implemented (by reviewing selected portions of the program and/or results of a 1982 licensee audit of nonlicensed training).

3. TMI-1 Restart Evaluation Report (NUREG-0680)

- a. (Open) Order Item No. 6 - Training Manual. See paragraph 2, (IFI 289/80-19-11) for details.
- b. (Closed) Order Item No. 6 - Supplement No. 1, Section IV, 1.A.1.1 - Shift Technical Advisor (STA) Training. See paragraph 2, IFI Item 289/80-19-05 for details.
- c. (Open) Order Item No. 6 - Supplement No. 1, Section IV, II.B.4; - Training for Mitigating Core Damage prior to 5% power. The licensee developed lesson plans for providing training in Mitigating Core Damage. The licensee's records indicated that all current licensed operators attended the three-phase course. All of the operators passed the course with the exception of one individual who is currently preparing to take a retest. The inspectors reviewed all of the tests taken by two SROs, one RO, and one STA and no unacceptable conditions were identified. Training in this area of the plant manager and the emergency team members was not completed. This will be examined during a subsequent inspection (IFI 289/81-33-01).

4. TMI-1 Control Room Design Review Report (NUREG-0752)

- a. (Open) SER Item No. 6 - Control Display Relationship; Operators Training and Retraining to include observation of flow transients, when a makeup pump is started. Operation's memo (including descriptive graphs) OPI-81-455 (September 8, 1981) from the Manager, Plant Operations to shift supervisors and foremen described

makeup flow transients encountered during a recent turbine roll. The memo required that all operators be provided this information. The licensee representative stated that the "Makeup and Purification System" lesson plan will be revised in approximately two weeks to incorporate this information on flow transients. It is anticipated that this revised lesson plan will be utilized in approximately eight weeks. During a subsequent inspection, the revision and implementation will be verified. (IFI 289/81-33-02).

- b. (Closed) SER Item No. 10 - Communications in the Control Room; Training for Operator Awareness of the Availability of Sound Powered Microphones/Headsets. The inspector reviewed the "Unit 1 Emergency Plan Review" lesson plan for current operators and verified that it addressed plant communication systems, including the location and use of equipment in the control room. The inspector also reviewed records which indicated that ROs and AOs attended the Emergency Control Center/Technical Support Center/Operations Support Center training sessions. The inspector verified that the handouts used during both sessions addressed the locations and use of communications equipment. Additionally, the inspector verified that the Replacement Operator Training Program (pp A.5, OJT Phase 1, Item 5.15) addresses the location and use of emergency communications equipment.

5. ASLB Partial Initial Decision Procedural Background and Management Issues

- a. (Closed) PID Item II.M, Condition 4. - Availability at TMI-1 of a CRT Part-Task simulator, which displays temperature and pressure. The licensee has obtained and is now utilizing in their training program a CRT simulator which displays temperature and pressure. The inspectors observed the operation of this simulator on December 21, 1981, and received an oral description of some of the simulator's capabilities.
- b. (Open) PID Item II.M, Condition 8 - Training of Operators in Abnormal Transient Operational Guidelines (ATOG) prior to ATOG implementation. ATOG has not yet been developed in total in that all of its contents have not been finalized. The licensee indicated that when ATOG is finalized, an ATOG lesson plan will be developed, and all operators will be trained in ATOG prior to implementation. The licensee has developed an introductory lesson plan on ATOG, and approximately 85% of the operators have attended sessions on this introduction. Completion of the ATOG program, and satisfactory completion of training in ATOG prior to implementation of the program, will be determined during a subsequent inspection. (IFI-289/33-03).

6. NRC Letter to Met-Ed, Dated April 22, 1981, Regarding Safety Evaluation Reports for Items Contained in NUREG-0694 and NUREG-0737
- a. (Open) SER Item 2.G.1; NUREG-0694 - Training During Low Power Testing. The inspectors reviewed records which indicated the Training Department presented classroom lectures in this area. Additionally, the schedule of the Startup and Test Group indicates that briefings will be held prior to the actual low power testing and OJT will be provided during the tests. A selected number of the tests will be performed three times so that three shifts can participate in the tests. An additional shift will observe each test so that a total of six shifts will either participate in or observe the test. This will be verified during a subsequent inspection. (IFI-289/81-33-04).
 - b. (Open) SER Item II.B4 NUREG-0737 - Training for Mitigating Core Damage. See paragraph 3.C for details. (Item 81-33-01).

7. Unresolved Items

"Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. There were no unresolved items during this inspection.

8. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on December 22, 1981. The inspectors summarized the purpose, scope and findings of the inspection, as stated in this report.