# U. S. ATOMIC ENERGY COMMISSION DIVISION OF COMPLIANCE REGION I

50-286/71-05 CO Inspection Report No. 50-320/71-05		
Subject: Metropolitan Edison Company		
Three Mile Island Units 1 and 2	License N	CPPR-40 CPPR-66
Location: Three Mile Island, Middletown	Priority_	
Pennsylvania	Category_	A
Type of Licensee: PWR, 2535 MWt (B&W)		
Type of Inspection: Routine, Announced		
Dates of Inspection: October 13-15, 1971		
Dates of Previous Inspection: July 6-7, 1971		
Principal Inspector: 50 Jolsow. S. A. Folsom, Reactor Inspector		/2/2/7/ Date
Accompanying Inspectors: 50 John / for J. H. Tillou, Reactor Inspector	_	12/2/71 Date
		Date
Other Accompanying Personnel:NONE	_	
Reviewed By: E. M. Howard, Senior Reactor Inspector	_	12-4-71 Date
Proprietary Information: NONE		

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## SECTION I

#### Enforcement Action

None

Licensee Action on Previously Identified Enforcement Matters

None

Unresolved Items

# Construction Logs and Records

A review of selected project logs and records showed numerous discrepancies. Construction deficiencies were entered in a number of instances with no subsequent mention of correction or resolution. (Paragraph 4)

# Status of Previously Reported Unresolved Items

A. Placement of Concrete at Temperatures Below 32°F

The licensee has evaluated the effects of reduced temperatures on concrete strength and submitted a letter to DRL on July 30, 1971. This item is considered to be resolved.

B. Decay Heat Coolers Cleaned With Chlorinated Solvents

The licensee has returned the decay heat coolers to the vendor for re-cleaning. The equipment was cleaned using a revised B&W specification which eliminated chlorides. The coolers have been returned to the jobsite. This item is considered to be resolved.

C. Attachment Studs for Reflective Insulation

Corrective action has not been taken. This item remains unresolved.

D. Licensee's Failure to Require QA/QC Participation in Piping System
Over-Pressure Hydro Tests (A Responsibility of the Met Ed Operations
Group)

Corrective action has not been taken. The CO inspector will audit implementation of this program during subsequent inspections.

E. One Hundred Percent UT of the Reactor Vessel Shell and Nozzle
Welds

Corrective action has not been taken. The CO inspector will follow up this item during the next inspection.

F. Core Flooding Tanks Fabricated Without NDTT Test Records

Corrective action has not been taken. The CO inspector will follow up this item until it is resolved.

- G. Insufficient Detail in PSAR on Radioactive Waste System

  Corrective action has not been taken. This item remains unresolved.
- H. Grinnell Fialure to Provide Material Records for Class N-1 Piping Spools

Corrective action has not been taken. This item remains unresolved.

## Design Changes

None

#### Unusual Occurrences

None

#### Persons Contacted

#### Metropolitan Edison Company

- J. G. Miller, Vice President
- G. Bierman, Project Manager
- R. Heward, Project Manager (New)
- J. Bachofer, Project Engineer
- B. G. Avers, QA Manager (GPU)
- M. J. Stromberg, Site QA Supervisor (GPU)
- J. Connolly, QA Engineer (Civil and Structural)
- W. Shepard, Site Resident Engineer
- J. Wright, QC Engineer (Civil)

#### Pittsburgh - DesMoines Company

- M. Stiger, Site NDT Specialist
- C. L. Ross, Site QA Supervisor

#### UE&C

H. Finlan, QC Engineer

#### Babcock and Wilcox

J. Uhl, Site Representative

#### Management Interview

The following subjects were discussed with Messrs. Miller, Heward, Bierman, Bachofer, Avers, and Stromberg on November 19, 1971, at Metropolitan Edison's Reading, Pennsylvania office.

# A. Construction Status

The inspector asked for a confirmation of the following construction schedule which had been furnished earlier.

	Unit No. 1	Unit No. 2
Percent Complete	67%	7%
Fuel Loading Date	February 1973	June, 1974
Commercial Operation Date	July, 1973	November, 1974

Mr. Miller stated that this schedule still applied.

#### B. Containment No. 2 Liner Plate and Penetrations

The inspector stated that the Unit 2 liner plate and penetration procurement and installation documentation, and field installation performance had been reviewed and that no deficiencies were identified.

Mr. Miller acknowledged the inspector's comments. (Paragraph 3)

# C. Construction Logs and Records

The inspector stated that a selective list of project logs and records at the jobsite had been reviewed. This examination had revealed a number of inconsistencies and unresolved items with no written indication that the items had been corrected.

Mr. Miller stated that their program to review and correct construction logs and records had evidently fallen short of his jectives and that he would redouble his efforts to improve the si ation.

The inspector said that the log and record review would be continued by CO:I at subsequent inspections probably in greater detail than had been possible at this inspection. (Paragraph 4)

# D. Containment No. 1 Ring Girder

The inspector stated that progress on the Containment No. 1 ring girder concrete investigation/repair had been observed, and asked when the report would be submitted to DRL.

Mr. Miller stated that a final draft of the investigation/repair report was being prepared and that he expected to submit it to DRL around December 3, 1971.

# E. Previously Identified Unresolved Items

The status of all previously unresolved items was reviewed, with two items having been resolved during this inspection.

Mr. Miller acknowledged the status of the items, and stated that every effort would be made to satisfactorily correct the remaining unresolved items.

# F. Unescorted Visitors

Mr. Miller stated that, due to insurance liability requirements, he had questioned the advisability of Compliance inspectors being unescorted in the field during inspections. In a telephone call to Mr. J. P. O'Reilly, he had requested a review of this situation. Mr. Miller asked if any decision had been reached on this matter. The inspector, following a phone call to E. M. Howard at the CO:I office, stated that a reply to Mr. Miller's question would be forthcoming in the near future, but in the meantime, he was assured that no unescorted inspections would be conducted at Three Mile Island until his question had been answered.

#### SECTION II

# Additional Subjects Inspected, Not Identified in Section I, Where No Deficiencies or Unresolved Items Were Found

# 1. Construction Status

The licensee reported the following construction status:

Unit No. 1	Unit No. 2
67%	7%
July, 1973	November, 1974
	June, 1974
1600	400 -
97%	76%
100%	94%
	67% July, 1973 February, 1973 1600 97%

# 2. Organization

Mr. Heward has replaced Mr. Bierman as the licensee's project manager. Heward has been the project manager at the Forked River nuclear power plant. Bierman has joined the Brown and Root Company in Dallas, Texas

Mr. J. Fant, the UE&C Senior Site QA/QC Supervisor, has been replaced by Mr. F. Reed.

# 3. Containment No. 2 Liner Plate and Penetrations

A review of the following items relative to QC system work procedures, work performance records, and field installation performance in the Containment No. 2 liner was performed. Mechanical penetrations were also inspected.

- a. Procurement specifications and drawings.
- b. Material Certification liner plate and welding filler material.
- c. Vendor inspections.
- d. Shipping and Receipt Inspection
  - (1) Ider ification and cleanliness.
  - (2) Protective coating and packaging.

- e. Disposition of nonconforming material.
- f. Handling.
- g. Installation records and work performance.
- h. Dimensions and tolerances.
- i. Nondestructive testing and inspection records.
- j. Installation inspection records.
- k. Installation completion records.

# Details of Subjects Discussed in Section I

# 4. Construction Logs and Records

A selection of site logs and records was reviewed from the standpoint of accuracy, completeness, and conformance to Criterion XVI of 10 CFR 50, "Corrective Action". This includes practices such as recording the disposition of deficiencies and use of prescribed forms.

The following are specific examples:

- a. UE&C Use of Corrective Action Report as a convenient substitute for a Deficiency Report. The Corrective Action Report is an unauthorized form not mentioned in any UE&C quality control procedure.
- b. MPR Associates Audit/Surveillance Reports include two items of safety significance with no resolution indicated.
- c. UE&C QA Meetings (discontinued June 2, 1970) include 26 items of safety significance with no resolution indicated.
- d. UE&C Deficiency Reports. Two items open since April 13, 1971.
- e. UE&C Monthly Deficiency Report. Four items (two on nuclear system valves, one on vertical tendons, one on failed concrete cylinders) open without resolution.
- f. UE&C Headquarters Deficiency Status Report. Item on unqualified welder, open since May 6, 1971.

- g. UE&C Corrective Action Requests (an unauthorized form). Two items of safety significance open for an undetermined period of time.
- h. B&W Unit Mo. 1 Deviation Record Log. Cracked castings in two Aloyco valves. No resolution entry.

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