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U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Subject: Three Mile Island Nuclear Station, Unit I (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Response to Notices of Violation in Inspection Report 90-81

This letter transmits the GPUN response to the Notices of Violation presented in Appendix A to Inspection Report 90-81.

Sincerely,

T. G. Broughton  
Vice President & Director, TMI-1

WGH:

Attachments

cc: Administrator, Region I, NRC  
Director, Project Directorate I-4, NRC  
TMI-1 Senior Project Manager, NRC  
TMI Senior Resident Inspector, NRC

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METROPOLITAN EDISON COMPANY  
JERSEY CENTRAL POWER AND LIGHT COMPANY  
PENNSYLVANIA ELECTRIC COMPANY  
GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289

Response to the Notice of Violation  
in Inspection Report 90-81

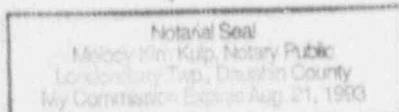
This letter is submitted in response to the Notices of Violation in Inspection Report 90-81, Electrical Distribution System Functional Inspection for TMI-1 dated April 2, 1991. All statements contained in this response have been reviewed, and all such statements made and matter set forth therein are true and correct to the best of my knowledge.



T. G. Broughton  
Vice President and Director, TMI-1

Signed and sworn before me this

2nd day of May, 1991.



Member, Pennsylvania Association of Notaries

Notice of Violation 1

10 CFR 50.59 requires that for changes in the facility as described in the safety analysis report, a written safety evaluation which provides the bases for the determination that the change, test or experiment does not involve an unreviewed safety question must be prepared.

The licensee's requirements for complying with 10 CFR 50.59 are provided in Procedures EP-016, Revision 4, "Nuclear Safety/Environmental Impact Determination and Evaluation" and 1000-ADM-1291.01, Revision 8, "Safety Review Process".

Section 8.2 of the safety analysis report describes the emergency diesel generator structures and states, "The units are...separately enclosed to minimize the likelihood of mechanical...damage."

Contrary to the above, on or before December 17, 1990, two large maintenance cranes were installed above the emergency diesel generators via EER 87-049-M without any written safety evaluation.

This is a Severity Level IV Violation (Supplement I).

GPUN Response

GPUN agrees with the violation as presented in Inspection Report (IR) 90-81. In response to this inspection finding, a written safety evaluation and seismic analysis have been prepared.

Two gantry cranes, provided for emergency diesel generator maintenance activities, were permanently stored and secured in the Diesel Generator Building in accordance with TMI-1 General Maintenance Procedure 1401-18, "Equipment Storage Inside Class 1 Buildings." This procedure provides an effective method for evaluating and designating areas inside Class 1 Buildings for the storage of maintenance tools and equipment. In compliance with this procedure, a Plant Engineering Evaluation of the storage installation was requested by the Maintenance Department. In accordance with TMI-1 Plant Engineering Procedure PEP-3, Revision 3, Engineering Evaluation Request (EER) No. 87-049-M was prepared to provide acceptable criteria for permanent storage of these cranes in the Diesel Generator Building.

The cranes were stored and secured in accordance with the criteria defined in EER b7-049-M. This evaluation specified general requirements to install wall and floor anchors for the purpose of securing the cranes during normal plant operation. Since these anchors were required to be installed in the concrete wall and floor of the Diesel Generator Building and were required to satisfy specific seismic requirements, the installation change package should have included a safety evaluation.

#### Corrective Actions Taken and Results Achieved

TMI-1 Safety Evaluation No. 000157-001, Revision 0, for permanent storage of the gantry cranes in the Diesel Generator Building has been completed. It confirms that this activity does not involve an unreviewed safety question or a change to the license or technical specifications. In addition, a seismic analysis has been performed (GPUN Calculation No. C-1101-157-5320-002) which verifies the seismic adequacy of this installation. The existing storage method does not adversely affect safe plant operations. This procedural noncompliance is considered an isolated occurrence.

#### Corrective Actions to Prevent Recurrence

The failure to identify the permanent storage of the gantry crane in the Diesel Generator Building as an activity requiring a safety evaluation is considered to be an isolated incident. This error occurred in 1987. Since that time, significant management emphasis and guidance has been directed, primarily through Safety Review Process Training Programs, to the definition of "changes to the plant as described in the SAR" and the requirement to consider the applicability of 10 CFR 50.59. Understanding of the scope of plant changes which fall within 10 CFR 50.59 has been significantly enhanced through these training programs.

The current practice of including a safety determination in the EER package will become a formal requirement for those EERs performed in areas where technical interpretations, evaluations or assistance is needed and the FSAR or safety function is potentially impacted. This will be accomplished through a revision to PEP-3.

Corrective Maintenance Procedure 1410-Y-77 is being revised to provide direction on the technique to be used to properly secure the crane after periodic maintenance use.

Date of Full Compliance

Revision to PEP-3 and Corrective Maintenance Procedure 1410-Y-77 will be completed by August 1, 1991.

### Notice of Violation 2

10 CFR 50, Appendix B, Criterion XI requires that all testing be performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in the applicable design documents.

The Quality Assurance Plan for Three Mile Island, Unit 1, No. 1000-PLN-7200.01, Revision 2, Section 6.5.1.1, Test Control, requires that all testing be performed in accordance with written, approved, and controlled test procedures or instructions which incorporate or reference the requirements and acceptance standards contained in the applicable design documents.

Contrary to the above, on December 3, 1990, the acceptance criteria of 83 percent capacity specified in Procedure No. 1303-11.11, Station Storage Battery Load Test", Revision 17, for the 'A' battery was inadequate in that, at 83 percent capacity, one of the battery banks would no longer be able to carry its design loads. The calculated minimum required capacity for the particular battery bank is 87 percent.

This is a Severity Level IV Violation (Supplement I).

### GPUN Response

GPUN agrees with this violation as presented in Inspection Report (IR) 90-81. In response to this inspection finding, a Procedure Change is being prepared for Surveillance Procedure (SP) 1303-11.11 and will be implemented before June 30, 1991.

The acceptance criteria of 83%, specified in SP 1303-11.11 Rev. 17 was based on Battery Sizing Calculations performed in November and December, 1985.

The A Station Battery was replaced during the first half of 1986.

In August 1986, a new Station Battery "A" Capacity calculation was performed. The new Battery Capacity calculation reduced the design life of the "A" station battery (red channel) from a design life of 20 years to a design life of 17.5 years. As a result of the reduction in design life, the procedure acceptance criteria for the "A" Battery (red channel), battery capacity should have been changed. The change was not incorporated into the procedure at the time the calculation was completed because of the potential for additional

changes in loading and the fact that the battery was new and had more than adequate capacity.

Corrective Actions Taken and Results Achieved

The results of the latest surveillance test were reviewed and the capacity of the red channel of the battery was verified to be adequate to satisfy its design basis.

Corrective Actions to Prevent Recurrence

Surveillance procedure 1303-11.11 will be changed to monitor the voltage on each section of the battery and require comparison to its own acceptance criteria. Future changes to the load calculation that require a more conservative acceptance criteria will be incorporated promptly.

Date of Full Compliance

The revision to surveillance procedure 1303-11.11 will be issued by June 30, 1991.