METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER & LIGHT COMPANY

AND

PENNSYLVANIA ELECTRIC COMPANY

THREE MILE ISLAND NUCLEAR STATION, UNIT 1

Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request No. 230

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF DAUPHIN)

This Technical Specification Change Request is submitted in support of Licensee's request to change Appendix A to Operating License No. DPR-50 for Three Mile Island Nuclear Station, Unit 1. As a part of this request, proposed replacement pages for Appendix A are also included.

GPU NUCLEAR CORPORATION

BY: J J Broughton
Vice President & Director, TMI

Sworn and subscribed
to before me this 10th
day of February, 1994.

Erin M. Flowers
Notary Public

Notarial Seal
Erin M. Flowers, Notary Public
Londonderry Twp., Dauphin County
My Commission Expires Sept. 11, 1997
Member, Pennsylvania Association of Notaries

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF
GPU NUCLEAR CORPORATION

DOCKET NO. 50-289
LICENSE NO. DPR-50

CERTIFICATE OF SERVICE

This is to certify that a copy of Technical Specification Change Request No. 230 to Appendix A of the Operating License for Three Mile Island Nuclear Station Unit 1, has, on the date given below, been filed with executives of Londonderry Township, Dauphin County, Pennsylvania; Dauphin County, Pennsylvania; and the Pennsylvania Department of Environmental Resources, Bureau of Radiation Protection, by deposit in the United States mail, addressed as follows:

Mr. Darryl LeHew, Chairman
Board of Supervisors of
Londonderry Township
R. D. #1, Geyers Church Road
Middletown, PA 17057

Mr. Russell L. Sheaffer, Chairman
Board of County Commissioners
of Dauphin County
Dauphin County Courthouse
Harrisburg, PA 17120

Director, Bureau of Radiation Protection
PA. Department of Environmental Resources
Fifth Floor, Fulton Building
Third and Locust Streets
P. O. Box 2063
Harrisburg, PA 17120
Attn: Mr. Richard R. Janati

GPU NUCLEAR CORPORATION

BY: J. J. Broughton
Vice President and Director, TMI

DATE: 2-10-94

I. TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) NO. 230

GPUN requests that the revised replacement page 3-43 and new page 3-43a be inserted into the existing Technical Specifications (TS):

II. REASON FOR CHANGE

The change proposed enhances emergency diesel generator (EDG) reliability by elimination of the TS requirements to demonstrate operability of the redundant EDG by testing, when an EDG will be made or has been determined to be inoperable.

The proposed change replaces the word "tested" with the words "verified to be operable" in TS section 3.7.2.c. Additional wording was included to require that, within 24 hours of the inoperability declaration, station personnel will determine the redundant diesel is not inoperable due to a common mode failure or test the redundant diesel generator in accordance with surveillance requirement 4.6.1.a., if it cannot be determined that a common mode failure does not exist.

Elimination of the requirement to test the redundant EDG is beneficial for the following reasons:

1) minimization of the number of entries into an equipment configuration where a loss of safety function exists during the period of the test,

2) overall engine degradation (wear and stress) and the probability of failure due to degradation are reduced and

3) the susceptibility to damage from an electrical grid fault, while the engine under test is running paralleled to the grid, is reduced.

III. SAFETY EVALUATION JUSTIFYING CHANGE

TS section 3.7.2.c presently requires that "... from the date that one of the diesel generators is made or found to be inoperable for any reason, reactor operation is permissible for the succeeding seven days provided that during such seven days the operable diesel generator is tested immediately and daily."

The TS requirement for testing of the operable diesel generator was based on an earlier NRC staff position. The intent of the prior position was to provide positive demonstration that a loss of safety function had not occurred. To satisfy the current TS requirement, the operable EDG must be taken out of service to demonstrate operability through supplemental testing. The detrimental effects of the testing exceed the benefit derived from any added assurance of operability the test provided. Supplemental testing results in both an increased probability of equipment failure due to unnecessary wear and a loss of safety function exists during the period of performance of the test.

The requirement for supplemental testing would increase the risk of losing the remaining operable diesel generator.

Industry operating experience has since demonstrated that testing EDGs, when one train is operable, is not necessary to provide assurance of system operability. A failure of a different diesel generator does not reduce the reliability of an otherwise operable diesel generator. Deleting the requirement to demonstrate the operability of an otherwise operable diesel generator, once a determination has been made that no common mode failure exists, has no affect on the design or performance characteristics of the engine. Barring common mode failure, TS surveillance testing schedules established in accordance with Generic Letter 84-15 assure that operable EDGs are capable of performing their intended functions. Therefore, the ability of the diesel generator to perform its design function is maintained.

The proposed change to section 3.7.2.c allows an EDG to be out of service without requiring supplementary immediate and daily testing of the redundant EDG. Station personnel will determine if the redundant diesel has been made inoperable by a common mode failure within 24 hours. The redundant EDG will remain in service during the entire period of inoperability of the out of service EDG. There will be no concurrent loss of safety function previously experienced during the required supplemental testing if the inoperability is determined not to be the result of a common mode failure. If a common mode failure cannot be ruled out, the redundant diesel will be tested in accordance with the surveillance requirements of TS section 4.6.1.a. to show operability.

It is recognized that while testing the redundant diesel in accordance with surveillance requirement 4.6.1.a, the diesel will not respond to an automatic initiation signal. In this situation, the 12 hour time clock will not be entered per the provisions of section 3.7.2.f. due to the low probability of an event occurring while the diesel is being tested.

The proposed revision reflects the revised NRC staff position on testing redundant safety equipment and is consistent with conclusions in recent NRC safety evaluations and the change is compatible with plant operating experience and is consistent with a staff approved change in NUREG-1430, Standard Technical Specifications for B&W Plants dated September 28, 1992.

IV. NO SIGNIFICANT HAZARDS CONSIDERATIONS

GPUN has determined that this Technical Specification Change Request involves no significant hazards consideration as defined by NRC in 10CFR50.92.

1. The proposed amendment serves to assure that an EDG is always available to perform on demand and the lower number of demands for performance reduce the probability of equipment failure. The

required action no longer requires a "test" be performed. Therefore, the word "test" has been deleted from TS 3.7.2.c. The change is administrative. Since the proposed amendment does not affect the design or performance of the diesel generators or their ability to perform their design function, the change will not result in an increase in the consequences or probability of an accident previously analyzed. The proposed change will increase diesel generator reliability, thereby increasing overall plant safety.

2. Operation of the facility in accordance with the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. Accidents involving loss of off-site power and single failure have been previously evaluated. The change does not introduce any new mode of plant operation or new accident precursors, involve any physical alterations to plant configurations, or make any changes to system setpoints which could initiate a new or different kind of accident.

3. Operation of the facility in accordance with the proposed amendment does not involve a significant reduction in a margin of safety. This change does not result in a reduction in the margin of safety since there is no margin of safety associated with the supplemental immediate and daily testing of the operable EDG. If a margin of safety were presumed to exist, no reduction would result because of the proposed amendment: no physical modification to the plant or change to procedurally prescribed operator actions resulted from the proposed amendment.

V. IMPLEMENTATION

It is requested that the amendment authorizing this change become effective upon issuance.