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February 07, 1997
6710-96-2193

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

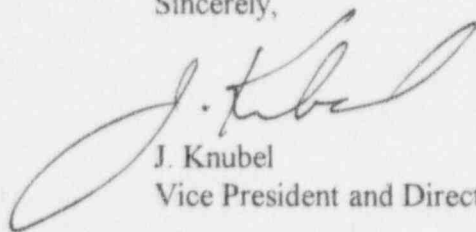
Dear Sir:

Subject: Three Mile Island Nuclear Generating Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request (TSCR) No. 255
Standard Technical Specification Improvements and Additional Changes

In accordance with 10 CFR 50.4(b)(1), enclosed is TMI-1 Technical Specification Change Request No. 255. The purpose of this TSCR is to incorporate certain improvements from the Revised Standard Technical Specifications (RSTS) for Babcock and Wilcox Plants, NUREG-1430 as well as make additional changes as described in the attachment.

Using the standards in 10 CFR 50.92, GPU Nuclear has concluded that these proposed changes do not constitute a significant hazards consideration, as described in the enclosed analysis performed in accordance with 10 CFR 50.91(a)(1). Also enclosed is a Certificate of Service for the request, certifying service to the chief executives of the township and county in which the facility is located, as well as the designated official of the Commonwealth of Pennsylvania, Bureau of Radiation Protection.

Sincerely,



J. Knubel
Vice President and Director, TMI

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Attachment: (1) Technical Specification Change Request No. 255

Enclosures: (1) Proposed Revised Technical Specification Pages

(2) Certificate of Service for Technical Specification Change Request No. 255

cc: Administrator, Region I

TMI Senior Resident Inspector

TMI-1 Senior Project Manager

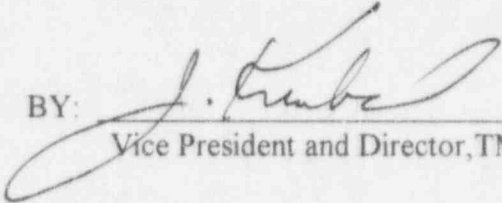
METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER AND LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY
GPU NUCLEAR INC.

Three Mile Island Nuclear Station, Unit 1
Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request No. 255

COMMONWEALTH OF PENNSYLVANIA)
COUNTY OF DAUPHIN) SS:
)

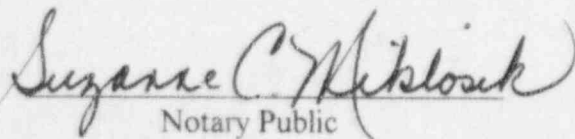
This Technical Specification Change Request is submitted in support of Licensee's request to change Appendix A to Operating License No. DPR-50 for the Three Mile Island Nuclear Station, Unit 1. As part of this request, proposed replacement pages for Appendix A are also included. All statements contained in this submittal have been reviewed, and all such statements made and matters set forth therein are true and correct to the best of my knowledge.

BY:


Vice President and Director, TMI

Sworn and subscribed before me this

2nd day of February, 1998


Notary Public

Notarial Seal
Suzanne C. Miklosik, Notary Public
Londonderry Twp., Dauphin County
My Commission Expires Nov. 22, 1999
Member, Pennsylvania Association of Notaries

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF
GPU NUCLEAR INC.

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

CERTIFICATE OF SERVICE

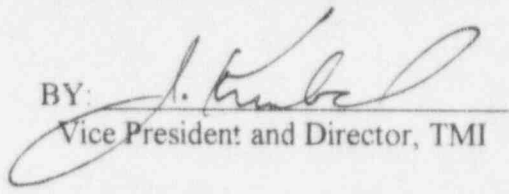
This is to certify that a copy of Technical Specification Change Request No. 255 to Appendix A of the Operating License for Three Mile Island Nuclear Station Unit 1, has, on the date given below, been filed with executives of Londonderry Township, Dauphin County, Pennsylvania; Dauphin County, Pennsylvania; and the Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection, by deposit in the United States mail, addressed as follows:

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

Ms. Sally S. Klein, Chairman
Board of County Commissioners
of Dauphin County
P. O. Box 1295
Harrisburg, PA 17120

Director, Bureau of Radiation Protection
Pa Dept. of Environmental Protection
Rachael Carson State Office Building
P. O. Box 8469
Harrisburg, PA 17105-8469
Attn: Mr. Stan Maingi

GPU NUCLEAR CORPORATION

BY: 
Vice President and Director, TMI

DATE: 2/7/86 ^{dx} 7

I. TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) NO. 255

GPU Nuclear requests that the following changes be made to the existing TMI-I Technical Specifications (TSs):

Replace existing TSs pages 3-42, 3-43, 4-5a (Table 4.1-1), 4-6 (Table 4-1.1), 4-38, 4-39, 4-43 and 6-3 with the revised so numbered pages. Replace page v of the Table of Contents. Remove pages 5-8 and 5-9.

II. REASON FOR CHANGES

The purpose of this TSCR is to:

- incorporate miscellaneous changes to: more accurately reflect current plant design, adopt changes in surveillance requirements consistent with B&W Plant Revised Standard Technical Specifications (RSTS) NUREG-1430,
- identify changes to plant systems and revisions to TSs system descriptions not involving TS LCOs and
- make editorial or typographical corrections to the current TSs.

A. Proposed LCO change:

1. 4160 Volt Tie from Unit 2

TS sections 3.7.2.b & d would be revised to delete reference to the optional use of the 4160 volt tie from the Unit 2 transformer since the modification making the tie possible was abandoned prior to its completion and cannot be completed due to the removal of the TMI-2 transformers.

B. Proposed changes associated with plant systems not involving an LCO:

1. Emergency Loading Sequence and Power Transfer

- a. Section 4.5.1.1.b would be revised to delete the need to evidence the successful starting of pumps and fans started and complete travel of valves by observation of control board component operating lights, and a second means of verification, such as: the station computer or control board indicating lights initiated by separate limit switch contacts.
- b. Section 4.5.1.2.b would be revised in the same manner as 4.5.1.1.b. above.

2. Reactor Building Cooling and Isolation System

- a. Section 4.5.3.1 a.1 would be revised to delete the need to test start a spray pump with a Reactor Building 30 psi high pressure test signal with the test of the emergency loading sequence simultaneously. This revision would additionally eliminate the need to evidence the successful starting of the spray pumps by observation of control board indicating lights or use of the station computer.
- b. Section 4.5.3.1 b.2 would be revised to delete the need to evidence the successful completion of valve travel by observation of control board indicating lights or use of the station computer.

3. Instrument Surveillance Requirements

Table 4.1-1 would be revised to delete an instrument and its associated surveillance requirement. Item 36, the strong motion accelerometer would be deleted as would the requirement for performance of a quarterly battery check on the component.

4. Air Intake Tunnel Fire Protection Systems

Section 5.5 would be deleted from the TSs to allow removal of the Halon fire protection system in the Air Intake Tunnel at a later date without requiring the submittal of an additional TSCR. The description of the equipment contained in section 5.5 will be transferred to the FSAR.

5. Hydrogen Recombiner System

The bases for section 4.4.4 would be changed to reflect a revision to the interval of the number of days between a LOCA event and the operation of a hydrogen recombiner. A decision to store galvanized scaffolding components in the Reactor Building necessitated a recalculation of the hydrogen generation based on the introduction of the additional zinc to the Reactor Building. The time interval for operation of a hydrogen recombiner after a LOCA was reduced from 9.8 to 9.0 days.

C. Editorial / typographical correction:

1. Correction of the punctuation marks in the title of the table contained in the statement accompanying the asterisk at the bottom of page 4-5a, changes the title of the table from "Table 3-5.1" to "Table 3.5-1".

2. Correction of a typographical error through a revision of the wording in the Bases of TS Section 4.4.4 on page 4-38. The current wording incorrectly states that the "...hydrogen recombiner system is not required until 9.8 days following a LOCA." The correct value is 9.0 days. The wording was revised to state that "Section 6.5.3.1 of the TMI-1 FSAR identifies the period, in days after a LOCA, determined adequate to place the hydrogen recombiner system in service."
3. Revision of the reference to Section 27 of the NFPA Code in section 6.4.2 on page 6-3 to a reference to Section 600 of the NFPA Code since Section 27 of the NFPA Code has been withdrawn.
4. Correct the spelling of "greater" in the REMARKS for Item 34 on Page 4-6.

III. SAFETY EVALUATION JUSTIFYING CHANGES

A. Proposed LCO change:

1. Unit Electrical Power System

Presently the TMI-1 TS section 3.7.2 states electrical power system requirements which must all be satisfied for the plant to remain critical. Two subsections, b and d, refer to the use of the 4160 volt tie from a Unit 2 transformer as optional hardware available for use in lieu of running a diesel generator. This tie does not exist.

GPU Nuclear proposes that the hardware reference to the 4160 volt tie from a Unit 2 transformer be deleted from TS sections 3.7.2.b and d

- a. Limiting Condition for Operation 3.7.2.b identifies a 4160 volt tie from a Unit 2 transformer as an alternate source of power in lieu of running one of the emergency diesel generators (EDG) should one of the Unit 1 auxiliary transformers either be made or found inoperable. The tie, when placed in service, would have supplied the second of two feeds to the engineered safeguard buses causing no degradation of the system and would have permitted continued operation indefinitely. Since the plant modification meant to provide this capability to tie Unit 1 with Unit 2 was abandoned prior to its completion, and the Unit 2 transformers have been removed from the site, deletion of the reference to the tie from a TMI-2 transformer is necessary.

The ability to compensate for an inoperable unit auxiliary transformer remains: one of the emergency diesel generators can be started and run continuously. However, since degradation of the system exists in this situation, unless both unit auxiliary transformers are in operation within 30 days, the plant must shutdown.

- b. Limiting Condition for Operation 3.7.2.d currently requires that if one of the TMI-1 auxiliary transformers is inoperable, the 4160 volt tie from a Unit 2 transformer cannot be placed in service and a diesel generator becomes inoperable, TMI-1 must be placed in hot shutdown within 12 hours. If either of the sources is not operable within an additional 24 hours, then TMI-1 must be placed in cold shutdown within an additional 24 hours.

Deletion of the reference to the 4160 volt tie from a Unit 2 transformer leaves the plant with a requirement to be placed in hot shutdown within 12 hours if one of the unit auxiliary transformers is inoperable and a diesel generator becomes inoperable. And if either of the sources is not operable within an additional 24 hours, the unit must be placed in cold shutdown within an additional 24 hours.

B. Proposed changes which do not involve an LCO:

1. Emergency Loading Sequence and Power Transfer

- a. The purpose of this surveillance requirement (SR) 4.5.1.2.b is to demonstrate the as designed operation of the standby power sources during the loss of the offsite power source. The as designed operations include all actions resulting from the loss of offsite power, including the shedding of non-essential loads and energizing of emergency buses and respective loads from the diesel generator. Satisfactory completion includes the satisfaction of TS sub-section 4.5.1.1.b which requires evidence of the successful starting of pumps and fans and completed travel of valves on preferred power and their transfer to emergency power for operability tests demonstrating emergency load sequencing and power transfer.

The SRs are demonstrated through the performance of Surveillance Procedure 1303-11.10, entitled ES System Emergency Sequence and Power Transfer Test. Specific steps in that procedure direct operators to test, obtain evidence and document that the requirements were met.

The proposed change would revise this SR to delete the specific wording to evidence, as described above.

The justification to delete the requirement, to verify component operability by control board operating lights and a second means, from the TMI-1 TS is supported by the absence of similar wording in the respective section of the B&W RSTS.

- b. Satisfactory completion of the sequence testing SR includes the satisfaction of TS sub-section 4.5.1.2.b which requires evidence of the successful starting of pumps and fans and completed travel of valves on either preferred power or emergency power.

The proposed change would revise this SR to delete the specific wording to evidence as in 1.a above.

2. Reactor Building Cooling and Isolation System

Currently surveillances are performed to verify the operability of the reactor building cooling systems. As presently written, both TS sections 4.5.3.1.a.1 and 4.5.3.1.b.2 contain stipulations for evidence of satisfactory component performance during tests to demonstrate that the reactor building cooling and isolation systems are operable. The evidence is based primarily on observation of control board operating lights and a secondary means: use of either the station computer or control board indicating lights initiated by separate limit switch contacts.

- a. The SR specific to TS section 4.5.3.1.a.1 verifies that a Reactor Building (RB) 30 psi high pressure test signal will start the RB spray pump. The SR is required to be performed simultaneously with the test of the emergency loading sequence on a refueling interval. The proposed change eliminates both the requirement to perform the tests simultaneously and the need to evidence the successful starting of the spray pumps and the completion of expected travel of affected valves.

The stipulation, in paragraph one of TS section 4.5.3.1.a.1, requiring that the RB Spray System test be performed simultaneously with the emergency loading sequence is considered overly prescriptive and unnecessary. During performance of the emergency loading sequence test, the RB spray pump is run to provide sufficient load to verify the emergency diesel generator operability. Performing the ancillary RB Spray System test at the same time is a matter of convenience. Since there is no technical requirement for the restrictive scheduling, the proposed revised wording eliminates the requirement for simultaneous performance of the tests.

- b. Another proposed change to section 4.5.3.1.a.1 would revise this SR to delete the requirement to verify component operability as specified in the fourth paragraph of the TS section. Revision of this section is consistent with the revision to section 4.5.1.1.b and is considered appropriate for the same reasons presented regarding verification of component operability while performing the emergency loading sequence and power transfer surveillances. The argument presented for that revision noted that:

- The SRs are demonstrated through the performance of the associated surveillance procedure. Specific procedural steps direct operators to test, obtain evidence and document that the requirements were met.
- The proposed change revises this SR to eliminate the specific wording to evidence, as described above.
- The justification to eliminate the requirement, to verify component operability by control board operating lights and a second means, from the TMI-1 TS is also supported by the absence of similar wording in the respective section of the B&W RSTS.

3 Instrument Surveillance Requirements

As shown on Table 4.1-1, Item 36, the Strong Motion Accelerometer requires a quarterly battery check and instrument calibration. GPU Nuclear proposes to eliminate the item from the table.

Elimination of the Strong Motion Accelerometer from the table listing is consistent with the suggestion provided by the NRC in Generic Letter 95-10. Therein, NRC identified instruments (such as the seismic monitor) which have no associated limiting condition for operation as unnecessary for inclusion in TSs. As a result of the removal of the seismic monitor from Table 4.1-1, maintenance of the seismic monitor, its battery check and calibration requirements have been transferred to the plant's preventive maintenance program.

The justification to eliminate the Strong Motion Accelerometer from the TMI-1 TS table listing is also supported by the absence of TS requirements for equivalent instrumentation in the B&W RSTS.

4. Air Intake Tunnel (AIT) Fire Protection Systems

TS Section 5.5. provides descriptive information regarding the AIT fire protection systems. Removal of the section will facilitate the removal of the Halon 1301 cylinders and explosive actuators from the AIT if an evaluation under 50.59 deems it appropriate. The removal of the Halon system equipment is desirable in the long term because:

- the substance will not be available once supplies are exhausted (Halon 1301 is an ozone-depleting substance which, as a result of actions by the EPA and the Federal government, is no longer manufactured),
- there is no "drop-in" replacement for Halon 1301 available for use in an embryonic explosion suppression system like that installed in the AIT and

- the existing system has the potential to cause loss of life to anyone in the AIT during an inadvertent discharge and loss of limb to individuals handling the explosive actuators during maintenance activities.

Pertinent information currently in the TMI-1 TSs will be transferred to FSAR section 9.9.2. making the TSs consistent with the B&W RSTS. The FSAR will contain the complete system description.

The current testing methodology and frequency are unaffected by the proposed change since the implementation of surveillance testing is required to be maintained by the Fire Protection Program and accomplished under Administrative Procedure 1001J, "Technical Specification Surveillance Testing Program".

5. Hydrogen Recombiner System

The allowable interval between a LOCA and operation of a hydrogen recombiner was changed from 9.8 to 9.0 days based on a recalculation of the hydrogen generation due to the storage of galvanized scaffolding components in the Reactor Building. Free standing storage containers for the scaffolding components were designed and installed in accordance with a Seismic II anti-falldown classification and will not come in contact with any object in the Reactor Building except the floor. The storage containers were evaluated and found not to become or be affected by missiles. The containers have no effect on high energy line break due to their placement in relation to high energy lines. No active systems were affected by the container installation, component storage or reduction in the interval between a LOCA and operation of a hydrogen recombiner.

C. Editorial / typographical corrections:

Correction of Tables 3.5-1 and 4.1-1 and the reference to Section 600 of the NFPA Code eliminate errors in the text of the TS. As such, these changes have no impact on the TS.

IV. NO SIGNIFICANT HAZARDS CONSIDERATION

GPU Nuclear has determined that the changes proposed to limiting conditions for operation, surveillance requirements and design features as addressed in this Technical Specification Change Request involve no significant hazards consideration because:

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability of occurrence or the consequences of an accident previously evaluated. The revised TS eliminate overly prescriptive requirements for evidencing component performance, the requirement for redundant diesel block loading tests, instrumentation from SR tables having no associated LCO, AIT fire protection systems descriptive text and correct previous typographical errors. Several of the proposed revisions involve changes which are consistent with NUREG-

1430, the Revised Standard Technical Specifications (RSTS) for B&W Plants. The reliability of systems and components depended upon to prevent or mitigate the consequences of accidents previously evaluated is not degraded by the proposed changes because assurance of system and equipment availability is maintained by surveillance testing program requirements.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The revised surveillance requirements create no new failure modes. Verification of equipment operation continues to be required by plant procedures. Elimination of the AIT fire protection system descriptive text from the TSs would not create a new or different kind of accident since the change has no effect on surveillance methodology and frequency requirements. They are maintained in the Fire Protection Program.
3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety because no operating limits are affected.

V. IMPLEMENTATION

It is requested that the amendment authorizing this change become effective 30 days after issuance.