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April 10, 1996

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

Gentlemen:

Subject: Three Mile Island Nuclear Station Unit 1, (TMI-1)
Docket No. 50-289
Operating License No. DPR-50
Technical Specification Change Request No. 243

References: (1) Generic Letter No. 91-04, dated April 2, 1991
(2) GPUN letter C311-92-2006, dated June 24, 1992
(3) Amendment 175 to Facility Operating License, dated 6/23/93
(4) Amendment 196 to Facility Operating License, dated 9/19/95

In accordance with 10 CFR 50.4(b)(1), enclosed is Technical Specification Change Request (TSCR) No. 243.

Also enclosed is the Certificate of Service for this 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.

TMI-1 commenced its first 24 month refueling cycle after the startup from the 10R refueling in September 1993. Reference (2) provided justification to revise the Tech. Specs. for the new operating cycle, and to extend the interval for a number of surveillances associated with the initial phase of implementation. This TSCR proposes to revise an additional group of surveillances where justification has been completed following receipt of Reference (3). The guidance contained in Reference (1) has been addressed where applicable.

In addition, Reference (4) amended the TMI-1 operating license by authorizing the removal of Section 3.2 and relocating its design information to the SAR based on GPUN's TSCR No. 252, dated August 11, 1995; however, the TSCR inadvertently failed to include the corresponding surveillances of Section 4.1, which also must be deleted. Hence, this TSCR serves to conform the Technical Specifications to amendment No. 196.

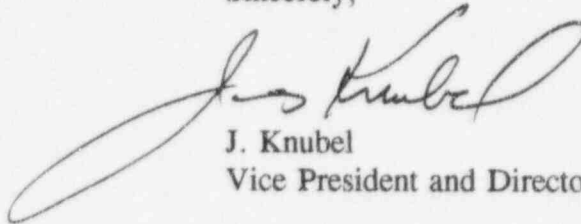
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Pursuant to 10 CFR 50.91(a)(1), enclosed is an analysis applying the standards in 10 CFR 50.92 to make an evaluation of No Significant Hazards Consideration.

Sincerely,

A handwritten signature in dark ink, appearing to read 'J. Knubel', with a large, sweeping loop at the end.

J. Knubel
Vice President and Director

GMG/plp

Enclosures: (1) Technical Specification Change Request No. 243
(2) Certificate of Service for Technical Specification
Change Request No. 243

c: Administrator, Region I
TMI-1 NRC Senior Resident Inspector
TMI-1 NRC Senior Project Manager

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

ENCLOSURE

**Three Mile Island Nuclear Plant, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request No. 243**

I. TECHNICAL SPECIFICATION CHANGE REQUEST (TSCR) NO. 243

GPUN requests that the following changed replacement pages be inserted into the existing Technical Specification:

Revised pages: 4-3, 4-5, 4-6, 4-7, 4-10, 4-10a. These pages are attached to this change request.

II. REASON FOR CHANGE

License Amendment No. 196 (dated 9/19/95) revised the Technical Specifications to remove the Makeup, Purification, and Chemical Addition systems from Section 3.2 of the Tech. Specs. and the pertinent design information will be relocated to the UFSAR. This proposed change serves to conform the Tech. Specs. to Amendment No. 196, with respect to the associated surveillances on the relocated systems. Removal of these surveillance requirements were not included in Amendment No. 196 due to an administrative oversight in the corresponding TSCR No. 252. Therefore, the change is purely administrative in nature.

In addition to the above, License Amendment No. 175 (dated 6/23/93) revised the Technical Specifications to implement a 24 month plant surveillance cycle. Part of this change revised the Frequency Notation (TS 1.25) for the performance of surveillances to include "R" for refueling interval (once per 24 months) and "F" (not to exceed 24 months). The surveillances which had not yet been evaluated for extension were designated "F" to limit their frequency to the existing refueling interval definition. The purpose of TSCR 243 is to change the frequency from "F" to "R" for the next group of surveillance evaluations just completed.

III. SAFETY EVALUATION JUSTIFYING CHANGE

The following surveillances are being deleted in order to conform the Technical Specifications administratively to License Amendment No. 196. The TS surveillances to be removed include:

<u>Table</u>	<u>Item</u>	<u>Description</u>
4.1-1	31 a,b	Boric Acid Mix Tank Level and Temperature Channels
4.1-1	32 a,b	Reclaimed Boric Acid Storage Tank Level and Temperature Channels
4.1-3	6	Boric Acid Mix Tank or Reclaimed Boric Acid Tank - Boron Concentration

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The following discussion provides justification for extending the interval for the surveillances in accordance with the guidance (where appropriate) contained in NRC Generic Letter 91-04, Enclosure 2. The TS surveillances for extension are:

<u>Table</u>	<u>Item</u>	<u>Description</u>
4.1-1	7	Reactor Coolant Temperature Channel
4.1-1	19 a	Reactor Bldg. 4 psig Channels
	19 d	Reactor Bldg. 30 psig pressure switch
	21	Reactor Bldg Spray Sys. 30 psig pressure switches
4.1-1	25 a,b	Core Flooding Tanks Pressure/Level Channels
4.1-1	30	Borated Water Storage Tank Level Indicator
4.1-1	47a	Pressurizer Code Safety Valve and PORV Tailpipe Flow Monitors
4.1-4	3	Containment Pressure

Except where noted below, all of the following instruments have had an evaluation performed of the historical calibration data using a linear regression model. This model provides a prediction of the positive and negative errors at a 95% confidence level. When performing the evaluation for redundant loops, which are virtually identical, the test results were combined into a single data set for each loop. The predicted instrument error at 30 months (24 months + 25%) was derived by adding to the drift rate the uncertainty due to sample size, model effects, and observed randomness and compared with the acceptance criteria. Based on the results of the evaluations performed, changing the surveillance frequency from "F" to "R" is acceptable.

Reactor Coolant Temperature

Technical Specification Table 4.1-1, Item 7, requires the calibration of the Reactor Coolant Temperature Channel monitoring instrumentation. The channels consist of four similar sets of resistance temperature detectors (RTDs), linear bridge and signal converter.

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Reactor Bldg. Isolation and Spray Functions

Technical Specification Table 4.1-1, Items 19a, 19d, and 21 require the calibration of the Reactor Building Emergency Cooling and Isolation System Analog channels pressure transmitters and pressure switches, and Reactor Building Spray pressure switches. The results of the evaluations performed, described above, show that the magnitude of instrument drift is extremely small indicating that the regression lines are almost flat or horizontal. The Coefficients of Determination are close to zero which indicates that the variables are not linearly related and that the drift is negligible. As such, the predicted error is not a function of time (independent variables).

Core Flooding Tanks Pressure/Level Channels Calibration

The TMI-1 Tech. Spec. Table 4.1-1, Item 25 requires calibration of the Core Flood Tank pressure and level instrumentation.

a.) Pressure Channel Calibration

The Tech. Spec. Limit is 600 +/- 25 psi, and the range of the pressure indicator is 0 to 800 psig. Considering the instrument drift and random variability, based on the evaluation performed as described above, the predicted error at 30 months will remain within the acceptance criteria (+/- 16 psig) of the surveillance calibration procedure and accuracy to satisfy the technical specification.

b.) Level Channel Calibration

The Tech. Spec. 3.3.1.2 limit is 13 +/- 0.45 feet, and the range of the level indicator is 0 to 15 feet. Considering the instrument drift and random variability, based on the evaluation as described above, the predicted error at 30 months will remain within the acceptance criteria (+/- 0.3 feet) of the surveillance calibration procedure, and the accuracy required to satisfy technical specification.

Borated Water Storage Tank Level

Technical Specification Table 4.1-1, Item 30 requires the calibration of the Borated Water Storage Tank (BWST) level monitoring instrumentation. The instrumentation consists of two similar sets of level transmitters, signal converters, and indicators.

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Comparing the predicted error at 30 months (24 months + 25%) to the level indicator acceptance criteria (+/- 1.2 feet) shows that, the predicted error of the level monitoring instrumentation falls within the surveillance acceptance criteria.

Pressurizer Code Safety Valve and PORV Tailpipe Flow Monitors

Table 4.1-1, Item 47a requires the calibration of the Pilot Operated Relief Valve and the Pressurizer Code Safety Valves Flow monitors. Discharge flow from the PORV and Code Safety Valves is measured by d/p transmitters connected across elbow taps downstream of each valve. Comparing the predicted error at 30 months (24 months + 25%) to the flow indicator acceptance criteria (+/- 6.0 inches) shows that, the predicted error of the indicators fall within the surveillance acceptance criteria.

Containment Pressure

Tech. Spec. Table 4.1-4, Item 3 requires the calibration of the primary containment pressure post accident monitoring instrumentation. These wide range and narrow range instruments are solely for post-accident indication and satisfy Regulatory Guide 1.97 criteria. Post accident containment pressure channels consist of two independent sets of pressure transmitters, signal converters, a data-logger and a recorder. The drift rate of the recorder and data logger were not computed because they are maintained and calibrated by a more frequent preventative maintenance procedure. In addition, there is also a weekly check of the post accident containment pressure indicator channels which is unaffected by this proposed change.

Comparing the predicted error at 30 months (24 months + 25%) to the instrumentation surveillance acceptance criteria (+/- 0.035 Volts) demonstrates that the containment pressure sensing and signal conversion instrumentation predicted error remains within the acceptance criteria over the extended surveillance interval.

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IV. NO SIGNIFICANT HAZARDS CONSIDERATION

GPU Nuclear has determined that this Technical Specification Change Request involves no significant hazards consideration as defined by NRC in 10 CFR 50.92.

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 proposed amendment extends the interval between successive refueling interval surveillances to once every 24 months for those surveillances evaluated herein, and to make administrative changes serving to conform the Technical Specifications to Amendment No. 196. Except for the administrative changes, the proposed surveillance interval changes do not involve any change to the actual surveillance requirements, nor does it involve any change to the limits and restrictions on plant operations. The reliability of systems and components relied upon to prevent or mitigate the consequences of accidents previously evaluated is not degraded by the proposed change to the surveillance interval. Assurance of system and equipment availability is maintained. This change does not involve any change to system or equipment configuration. Therefore, this change does not increase the probability of occurrence or the consequences of an accident previously evaluated.

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 proposed amendment extends the interval between successive refueling interval surveillances to once every 24 months for those surveillances evaluated herein, and to make administrative changes serving to conform the Technical Specifications to Amendment No. 196. Except for the administrative changes the proposed surveillance interval changes do not involve any change to the actual surveillance requirements, not does it involve any change to the limits and restrictions on plant operation. This change does not involve any change to system or equipment configuration. Therefore, this change is unrelated to the possibility of creating a new or different kind of accident from any previously evaluated.

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3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

The proposed amendment extends the interval between successive refueling interval surveillances to once every 24 months for the surveillances evaluated herein, and to make administrative changes serving to conform the Technical Specifications to Amendment No. 196. Except for the administrative changes the proposed surveillance interval changes do not involve any change to the actual surveillance requirements, nor does it involve any change to the limits and restrictions on plant operation. The reliability of systems and components is not degraded by the proposed change to the surveillance interval. Assurance of system and equipment availability is maintained. Therefore, it is concluded that operation of the facility in accordance with the proposed amendment does not involve a significant reduction in a margin of safety.

Hence, the proposed extension of the refueling interval surveillances to once every 24 months does not degrade the reliability of systems and components beyond that obtained from the currently defined surveillance interval. Reliable performance of the systems and equipment affected by this change has been demonstrated. In addition, the administrative changes being made serve to correct an oversight in the preparation of TSCR No. 252, prior to the issuance of License Amendment No. 196. Implementation of the proposed amendment will maintain the required level of assurance of system and equipment availability. Thus, operation of the facility in accordance with the proposed amendment involves no significant hazards consideration.

V. IMPLEMENTATION

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