

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
Corrections to Technical Specification Change Request No. 30

These Technical Specification Change Request Corrections are submitted to correct the 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 these corrections, replacement pages for Change Request No. 30 are also included.

METROPOLITAN EDISON COMPANY

By /s/ R. C. Arnold
Vice President-Generation

Sworn and subscribed to me this 20th day of January, 1976

Lawrence L. Lawyer
Notary Public

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METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER & LIGHT COMPANY

AND

1-21-76

PENNSYLVANIA ELECTRIC COMPANY
THREE MILE ISLAND NUCLEAR STATION UNIT 1

Operating License No. DPR-50
Docket No. 50-289
Corrections to Technical Specification Change Request No. 30

These Technical Specification Change Request Corrections are submitted to correct the 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 these corrections, replacement pages for Change Request No. 30 are also included.

METROPOLITAN EDISON COMPANY

By R. Arnold
Vice President-Generation

Sworn and subscribed to me this _____ day of _____, 1976

NOTARY PUBLIC
Berks County, Pa.
Expires Nov. 19, 1978

Notary Public

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~~RECEIVED~~ 1-21-76

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF

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

METROPOLITAN EDISON COMPANY

This is to certify that a copy of corrections to Technical Specification Change Request No. 30 to Appendix A of the Operating License for Three Mile Island Nuclear Station, Unit 1, dated January 21, 1976, and filed with the U.S. Nuclear Regulatory Commission January 21, 1976, has this 21st day January, 1976, been served on the chief executives of Londonderry Township, Dauphin County, Pennsylvania, and of Dauphin County, Pennsylvania, by deposit in the United States Mail, addressed as follows:

Mr. Weldon B. Arehart, Chairman
Board of Supervisors of
Londonderry Township
R.D. #1, Geyers Church Road
Middletown, Pennsylvania 17057

Mr. Charles P. Hoy, Chairman
Board of County Commissioners of
Dauphin County
Dauphin County Courthouse
Harrisburg, Pennsylvania 17120

METROPOLITAN EDISON COMPANY

By /s/ R. C. Arnold
Vice President-Generation

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Metropolitan Edison Co. (Met-Ed)
Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289

TECHNICAL SPECIFICATION CHANGE REQUEST NO. 30

The licensee requests that the attached changed pages replace pages 2-1, 2-2, 2-3, 2-5, 2-6, 2-7, 2-9, 3-16, 3-34, 3-35, 3-36, figures 2.1-1, 2 & 3, figures 2.3-1 & 2, and figures 3.5-2A thru F of the existing Technical Specifications.

REASON FOR PROPOSED CHANGE

These changes to technical specifications are necessary to ensure safe operation of TMI-1 at rated power of 2535 MWt for the duration of Cycle 2 and are based on a Cycle 1 burnup of 440 ± 10 FFPD.

Changes to the present technical specifications are necessary as a result of: the effects of introducing 56 fresh batch 4 fuel assemblies combined with relocation of once burned Batch 2 and 3 fuel assemblies; use of the B&W-2 CHF correlation with a 95/95 confidence level, and extended pressure application to 1750 psi; use of a RC flow equal to 106.5% of Cycle 1 design flow; and ECCS Final Acceptance Criteria (FAC).

The 56 batch 4 fuel assemblies are not in general the technical specification limiting assemblies. Their presence combined with relocation of the once burned batch 2 and 3 assemblies produces a redistribution of fuel and assemblies which results in changed core physics and thermal-hydraulic calculations. Further burnup and the cycle 2 locations of the batch 2 and 3 assemblies results in these assemblies being the limiting assemblies thermally and mechanically. Other factors that were considered in the derivation of the Cycle 2 specification limits are the slight differences between the new and once burned fuel assemblies. These minor differences are reduced active length, slightly higher pellet density, and improved flow characteristics for the new assemblies compared to the burned assemblies.

In addition to Fuel changes, the use of the B&W-2 CHF correlation combined with the assumed minimum Flow of 106.5% have had an influence on these proposed specifications. Use of this correlation and flow more realistically predict core performance but still provide conservative technical specification limits.

Met-Ed submitted revised technical specifications based on FAC guidelines in our Technical Specification Change Request 17 (August 8, 1975). Additional ECCS supporting information was provided in our letters of April 19, 1975, July 9, 1975, July 15, 1975, and October 23, 1975. The attached changed pages for TMI-1 Cycle 2 operation include changes that were requested in Change Request 17 which apply to Cycle 2 operation. The number 17 beside the marginal bars indicates those changes that were requested in Change Request 17 and all other marginal bars indicate Cycle 2 changes. All appropriate cycle 2 Technical Specifications were developed based on FAC guidelines.

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The low pressure (1800 psig) and variable low pressure (11.75 Tout - 5103) trip setpoint shown in Figure 2.3-1 have been established to maintain the DNB ratio greater than or equal to 1.3 for those design accidents that result in a pressure reduction (3,4).

Due to the calibration and instrumentation errors, the safety analysis used a variable low reactor coolant system pressure trip value of (11.75 Tout - 5143).

d. Coolant outlet temperature

The high reactor coolant outlet temperature trip setting limit (619 F) shown in Figure 2.3-1 has been established to prevent excessive core coolant temperatures in the operating range.

The calibrated range of the temperature channels of the RPS is 520 to 620 F. The trip setpoint of the channel is 619 F. Under the worst case environment, power supply perturbations, and drift, the accuracy of the trip string is ±1F. This accuracy was arrived at by summing the worst case accuracies of each module. This is a conservative method of error analysis since the normal procedure is to use the root mean square method.

Therefore, it is assured that a trip will occur at a value no higher than 620F even under worst case conditions. The safety analysis used a high temperature trip set point of 620F.

The calibrated range of the channel is that portion of the span of indication which has been qualified with regard to drift, linearity, repeatability, etc. This does not imply that the equipment is restricted to operation within the calibrated range. Additional testing has demonstrated that in fact, the temperature channel is fully operational approximately 10% above the calibrated range.

Since it has been established that the channel will trip at a value of RC outlet temperature no higher than 620F even in the worst case, and since the channel is fully operational approximately 10% above the calibrated range and exhibits no hysteresis or foldover characteristics, it is concluded that the instrument design is acceptable.

e. Reactor building pressure

The high reactor building pressure trip setting limit (4 psig) provides positive assurance that a reactor trip will occur in the unlikely event of a steam line failure in the reactor building or a loss-of-coolant accident, even in the absence of a low reactor coolant system pressure trip.

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