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BUTLER,W.R. Project Directorate I-2

SUBJECT: Forwards application for Proposed Amend 124 to License NPF-14,changing Cycle 5 MCPR figures.

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JUN 2 2 1989

Director of Nuclear Reactor Regulation
Attention: Dr. W. R. Butler, Project Director
Project Directorate I-2
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENT 124 TO LICENSE
NO. NPF-14: CHANGES TO U1C5 MCPR
PLA-3208 FILES A17-2/R41-2

Docket No. 50-387

Reference: 1. Letter, W. R. Butler to H. W. Keiser, "Technical Specification Changes in Support of Cycle 5 Operations (TAC No. 72094)," dated May 15, 1989.

Dear Dr. Butler:

The purpose of this letter is to propose changes to the Cycle 5 MCPR figures in the Susquehanna SES Unit 1 Technical Specifications, and to incorporate certain editorial changes for consistency with SSES Unit 2 Technical Specifications.

BACKGROUND AND SAFETY ANALYSIS

As you are aware, PP&L recently determined that the MCPR figures in the Unit 1 Technical Specifications are erroneous due to a misinterpretation of the Unit 1 Cycle 5 (U1C5) Licensing Analyses results by PP&L. The Licensing Analyses, which were approved by the NRC in support of U1C5 operation (Ref. 1), are correct. However, upon reevaluation of the results for the situation where the End of Cycle-Recirculation Pump Trip (EOC-RPT) is inoperable, Curve A of Figures 3.2.3-1 and 3.2.3-2 should reflect a minimum value of 1.43 vs. 1.42. This is reflected on the attached revised figures.

The proposed new figures also include expansion of the Flow Dependent MCPR operating limit (Figure 3.2.3-1) to 30% rated core flow. The expansion of the MCPR vs. Flow operating limit is required because recent plant data, based on an improved core flow calibration procedure, shows that the core flow corresponding to the two pump minimum speed operating line is lower than previously expected. Therefore, the MCPR vs. Flow operating limit has been expanded to bound expected U1C5 operation. PP&L requested Advanced Nuclear

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Fuels (ANF) to perform an analysis at 30% rated core flow to develop this limit. The results of this analysis show that a reduced flow MCPR operating limit of 1.79 is required at 30% core flow.

Several editorial changes are also proposed for consistency with upcoming U2C4 proposed reload Technical Specification changes. All of these changes are a result of having only ANF fuel in the U1C5 core.

Based on the above discussion of the proposed changes, none will adversely affect the safe operation of Susquehanna SES Unit 1. This is discussed in greater detail below.

NO SIGNIFICANT HAZARDS CONSIDERATIONS

The proposed changes do not:

I. Involve a significant increase in the probability or consequences of an accident previously evaluated. As stated previously, the results provided in the analysis supporting U1C5 are correct. Therefore, the analytical methodology used to develop delta CPRs, which was previously approved by the NRC, is not in question. The proposed change corrects an error in converting the analytical results to the MCPR operating limit curve when EOC-RPT is inoperable. Correction of this error results in a more restrictive limit at end-of-cycle; this will not result in an increase in the probability or consequences of an accident previously evaluated.

   The increased application of Figure 3.2.3-1 from 40% to 30% total core flow is the result of a more accurate definition of the SSES Unit 1 two pump minimum speed operating line. The change to include 30% total core flow was performed to ensure an operating limit was provided which bounds the redefined line. This will not increase the probability or consequences of an accident previously evaluated.

   The changes to Specification 3.2.1 (APLHGR), 3.2.4 (LHGR), and 3.4.1.1.2 (SLO) are all editorial changes which reflect the removal of all GE fuel from the SSES Unit 1 core. Specification 3.2.1 is revised to remove an unnecessary reference to ANF fuel, and to remove a cross-reference footnote to SLO since this limit will no longer change for SLO. Specification 3.2.4 also deletes unnecessary references to ANF fuel. Finally, Specification 3.4.1.1.2 deletes the reference to MAPLHGR, because it no longer represents a "revised specification limit" during SLO. All of these changes are editorial in nature, and can therefore have no impact on any previous safety analysis.

II. Create the possibility of a new or different kind of accident from any accident previously evaluated. As discussed in I above, the methodology used to develop the delta CPRs that form the basis for the MCPR figures is correct as approved by the NRC for U1C5. The correction proposed will ensure proper limits based on the methodology; it cannot create a new event. The increased flow range for Figure 3.2.3-1 is the result of

more accurate information as to the location of the two pump minimum speed line. Addition of this new lower limit ensures proper restrictions for this flow range; it cannot create a new event. The editorial changes, by nature, cannot create new events.

III. Involve a significant reduction in a margin of safety. The two changes to the MCPR figures provide corrections based on more accurate information. The change to the MCPR curves with EOC-RPT inoperable results in a more restrictive minimum limit. The increased flow range in Figure 3.2.3-1 results in a limit that was previously not provided. The rest of the changes are editorial in nature. None of the above changes will result in a significant reduction in any margin of safety.

IMPLEMENTATION

Based on the fact that the proposed MCPR changes are more restrictive in one case, and provide a currently unaddressed limit in the other case, they will be implemented at Susquehanna SES in the interim until this request is formally approved by the NRC.

Any questions on this request should be directed to Mr. R. Sgarro at (215) 770-7916.

Very truly yours,

H. W. Keiser

Attachments

cc: NRC Document Control Desk (original)
NRC Region I
Mr. M. C. Thadani, NRC Project Manager - Rockville
Mr. G. S. Barber, NRC Sr. Resident Inspector - SSES
Mr. T. M. Gerusky, Pennsylvania DER