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 BUTLER,W.R. Licensing Branch 2

SUBJECT: Forwards application for Amend 25 to License NPF-22, changing
 Tech Specs to support replacements of magnetic-only circuit
 breakers w/thermal-magnetic breakers.Fee paid.

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THE UNITED STATES OF AMERICA
DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

11-4-4

GP

TO : SAC, NEW YORK
FROM : SAC, PHOENIX
SUBJECT: [Illegible]

[The following text is extremely faint and largely illegible due to the quality of the scan. It appears to be a memorandum or report containing several paragraphs of text.]



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Harold W. Keiser
Vice President-Nuclear Operations
215/770-7502

OCT 10 1985

Director of Nuclear Reactor Regulation
Attention: Dr. W. R. Butler, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENT NO. 25 TO LICENSE NO. NPF-22
ER 100450 FILE 841-8
PLA-2544

Docket No. 50-388

Dear Dr. Butler:

The purpose of this letter is to propose changes to the Susquehanna SES Unit 2 Technical Specifications in order to support replacements of magnetic-only circuit breakers with thermal-magnetic breakers as well as editorial changes to improve Table 3.8.4.1-1.

Attached to this letter are the proposed changes described below in marked-up form.

A. Specification 4.8.4.1.a.1

The current issue of Standard Technical Specifications (STS) was slightly modified to achieve a greater level of clarity for this surveillance, which was previously ambiguous in many cases where no trip setpoint nor response time was provided. The difference between the current STS and the proposed revision is in specifying how acceptance criteria shall be met for each type of breaker, i.e., magnetic-only (HFB-M) and thermal-magnetic (HFB-TM, KB-TM). The degree of testing for a given breaker remains unchanged due to this proposed revision.

B. Table 3.8.4.1-1

I. Replacement of magnetic-only with thermal-magnetic circuit breakers.

The as-built system of containment penetration overcurrent protection was designed to provide protection for "bolted" short circuits occurring at the terminals of 480-volt motors or other loads. However, since the as-built distribution system is a 480-volt, solidly grounded system it would be reasonable to assume that "arcing" short circuits could occur. The problem is that the phase

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to neutral voltage in a 480-volt system is high enough to allow re-striking after the arc extinguishes at a current zero.

This re-striking may result in very low short circuit currents (that is, very high arc resistances) which approach full load currents. Usually, these small magnitude short circuit currents are detected by motor overloads and isolated. However, in this specific case, some overloads are bypassed to insure completion of a safety function, and even if the overloads were not bypassed, redundant protection would not exist since only one overload has been installed.

Changing the containment penetration overcurrent protection from magnetic-only to thermal-magnetic circuit breakers allows detection of substantially lower short circuit currents.

II. Editorial Changes

Based on a review of the current STS and recently licensed plants, it was found that the amount of information in the subject table had been reduced to a minimum and organized in a clearer fashion.

FRAME RATING/UL: Control of frame size and UL rating is ensured by the design change control process, which is governed by 10CFR50.59, and therefore the information need not be listed in the Technical Specifications.

TRIP SETPOINT: Due to the replacement described in I above, the number of adjustable (Type HFB-M, magnetic-only) breakers has decreased by approximately two-thirds. Trip setpoints are not applicable to non-adjustable breakers. The setpoint control of the adjustable breakers is ensured by the setpoint change control process, which is governed by 10CFR50.59, and therefore the information need not be included in the Technical Specifications.

RESPONSE TIME: The response time column is currently "NA" for all entries. This is because, as described in FSAR subsection 4.8.4.1.a.1, manufacturer's data is used to determine acceptable response time. Therefore, the column has been deleted.

OTHER:

- o "Circuit Breaker Location" has been changed to "Circuit Breaker Designation".
- o "Molded Case Circuit Breaker" headings were deleted. The need for this heading is tied, by the Standard Technical Specifications, to a need to differentiate test methods from those used for metal case circuit breakers. The surveillance is now tied to the types listed in the proposed change, and no metal case breakers are in use, so the deleted information serves no purpose.

The first part of the document discusses the general situation of the country and the role of the government. It mentions the need for a strong and stable government to ensure the well-being of the people and the progress of the nation. The text emphasizes the importance of unity and cooperation among all citizens and government officials.

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The seventh part of the document discusses the future prospects of the country. It mentions the government's vision for a bright and prosperous future for the nation. The text emphasizes the importance of continued reform and development to achieve the country's goals.

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The ninth part of the document discusses the final remarks of the document. It mentions the government's commitment to the people and the nation. The text emphasizes the importance of unity and cooperation to achieve the country's goals.

The tenth part of the document discusses the final remarks of the document. It mentions the government's commitment to the people and the nation. The text emphasizes the importance of unity and cooperation to achieve the country's goals.

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- o Editorial descriptions of specific equipment have been deleted. System and equipment number is sufficient for this purpose.
- o Footnotes referring to vendors have been deleted since they are unnecessary; the type definitions they provided are covered by the revised surveillance.
- o Footnote "#" was revised (new footnote *) to drop the reference to series arrangement, because this is not always the correct designation. Furthermore, such specific information is unnecessary; the key information is that two redundant breakers are to be OPERABLE.
- o The entire listing has been reorganized to be grouped by system, rather than randomly.

NO SIGNIFICANT HAZARDS CONSIDERATIONS

The proposed changes do not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated,
- (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or
- (3) involve a significant reduction in a margin of safety.

Justification for this conclusion is provided below:

A. Specification 4.8.4.1.a.1

Although the degree of testing has not changed for a given breaker, the amount of prescriptiveness required to clarify the acceptance criteria applicable to a given breaker has been added. This change therefore can be classified as editorial (48CFR14870,(i)) but also as additional controls (48CFR14870,(ii)) since more specific test requirements for thermal-magnetic breakers have been included.

B. Table 3.8.4.1-1

I. Replacement of magnetic-only with thermal-magnetic circuit breakers.

Safety is improved due to the addition of this equipment, which can detect lower short circuit currents. As cited in B above, this design improvement provides additional control over penetration protection and is therefore an example as cited in 48FR14870(ii).

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II. Editorial Changes

All of the changes, for the reasons described above, are editorial in nature and therefore can be cited as examples per 48FR14870(i).

IMPLEMENTATION SCHEDULE

The modifications discussed in this proposal will be performed during the Unit 2 first refueling and inspection outage. We therefore request that NRC approval of these changes be issued prior to the beginning of that outage and be conditioned to become effective prior to startup following that outage.

Any questions on this proposal should be directed to Mr. R. Sgarro, (215) 770-7855. Pursuant to 10CFR170.22, the appropriate fee is enclosed.

Very truly yours,



H. W. Keiser
Vice President-Nuclear Operations

Attachments

cc: M. J. Campagnone USNRC
R. H. Jacobs USNRC

T. M. Gerusky, Director
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