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SUBJECT: Forwards application for Proposed Amends 52 & 11 to Licenses NPF-14 & NPF-22,respectively,to include controls in Tech Specs on equipment which must be operable to ensure proper functioning of isolated 480-volt swing busses.Fee paid.

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Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
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Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENTS 52 TO NPF-14
AND 11 TO NPF-22
ER 100450 FILE 841-8 Docket Nos. 50-387
PLA-2326 50-388

Dear Mr. Schwencer:

The purpose of this letter is to propose changes to both the Unit 1 and Unit 2 Technical Specifications. The proposed changes are provided in marked up form as attachments to this letter. Please note that some pages that were previously submitted in proposed amendment 43 are attached, as indicated, for your information.

PURPOSE: The reason that this change is proposed is in order to include controls in the Technical Specifications on equipment which must be OPERABLE to ensure proper functioning of the isolated 480 volt swing busses.

SWING BUS SYSTEM DESIGN: See attached FSAR Figure 8.3-13. The 480 volt swing bus system shown reflects the design of Unit 1; Unit 2 is identical. The two redundant busses in each unit support the operation of the LPCI injection valve motor operators, recirculation loop bypass valve motor operators, and recirculation discharge valve motor operators. The preferred power source to each bus is supplied through the MG set, which is used to electrically isolate two redundant load groups. Therefore, faults at the swing bus cannot be propagated into more than one load group. The automatic transfer switch transfers the swing bus to the alternate power source upon loss of voltage; however, if the undervoltage is caused by a fault at the swing bus, the transfer will be prevented. Otherwise, where voltage is restored, the swing bus will be transferred back to the preferred source. The FSAR design basis for the system (ref. subsection 8.3.1.3.5) states the following:

> "The swing bus and transfer switch are designed so that for a loss of off-site power and any single failure, the minimum required ECCS flow to meet 10CFR50 Appendix K criteria is always available."

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CURRENT PROBLEM: Based on the current lack of explicit LCO's for other than the swing busses proper and their associated transfer switches, the following is postulated to occur (See Attached Figure A):

> Swing bus MG set "A" is down for maintenance with no LCO to force its return to service. A break occurs in the "B" recirculation loop piping between the vessel and the LPCI injection valve (Recirc. Discharge DBA), together with a single failure of the Channel C 4kV power supply; this renders both LPCI loops inoperable. The "B" loop is out of service due to the break, and the "A" loop injection valve is without power to open.

FSAR Subsection 6.3.1.1.2 states the following:

> In the event of a break in a pipe that is a part of the ECCS, no single active component failure in the ECCS prevents automatic initiation and successful operation of less than the following combination of ECCS equipment:
>
> a. 2 LPCI pumps (1 loop), 1 CS loop and the ADS or HPCI (i.e., CS failure); or
>
> b. 1 LPCI pump, 1 CS loop and the ADS or HPCI (i.e., single diesel generator failure); or
>
> c. 2 LPCI pumps (1 loop), 2 CS loops and the ADS (i.e. HPCI failure)
>
> These are the minimum ECCS combinations which result after assuming the failures and assuming that the ECCS line break disables a LPCI system Loop.

Each of these combinations requires at least one LPCI pump with a flow path; no LPCI is available in the postulated event.

FSAR Table 6.3-5 (attached) outlines the various ECCS complements remaining after four assumed single failures. For the LPCI Injection Valve failure during a discharge break, two CS subsystems (i.e. 4 pumps) are assumed available. As can be seen in Figure A, only 3 CS pumps are available in the postulated event, due to the loss of the Channel C power. Therefore, the postulated single failure represents a potential unreviewed safety question if appropriate controls are not placed on the power sources supporting the isolated 480 volt swing bus.

JUSTIFICATION FOR OOS TIMES:

- OPERATING: The ECCS-OPERATING Technical Specifications (3/4.5.1) are written so that ACTION is forced when ECCS system operability has degraded to the point where a single failure will place the unit in an unanalyzed condition. Due to the obvious relationship between the low pressure ECCS and the swing busses, the ACTION time associated with LPCI and CS when they cannot afford a single failure was chosen for the swing bus support equipment when it has reached the same condition.

o SHUTDOWN: Again, the ACTION restoration time was chosen based on the associated ECCS-SHUTDOWN requirements (3/4 5.2).

SAFETY IMPACT: The proposed change will provide single failure protection consistent with the requirements of the safety-related ECCS systems which it supports. This protection will improve the level of safe operation at SSES Units 1 and 2.

NO SIGNIFICANT HAZARDS CONSIDERATIONS

Based on their administrative nature, these corrections are examples per Column 3, Paragraph (i) of 48FR14870 and therefore do not involve significant hazards considerations.

If you have any questions on this proposal please contact Mr. R. Sgarro at (215) 770-7855. Pursuant to 10CFR170.22, the appropriate fees are enclosed.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

cc: R. L. Perch - USNRC
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