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SUBJECT: Forwards application for amends to Licenses NPF-14 & NPF-22 & proposed Tech Specs changes. Fee paid.

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Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Project Director
BWR Project Directorate No. 3
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SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENTS NO. 91 TO LICENSE NPF-14
AND NO. 45 TO LICENSE NPF-22
PLA-2796 FILES A17-2,R41-4

Docket Nos. 50-387
and 50-388

Dear Ms. Adensam:

The purpose of this letter is to request changes to the Technical Specifications for the Reactor Protection System (RPS) Instrumentation and End-of-Cycle Recirculation Pump Trip (EOC-RPT) System Instrumentation for Susquehanna SES Units 1 and 2. All of the proposed changes involve the automatic operating bypass of the RPS and EOC-RPT functions on a turbine stop valve closure or turbine control valve fast closure signal from the condition of thermal power below 30% of rated. These changes are administrative and for clarification only.

The proposed changes (attached in marked-up form) are as follows:

(A) Table 3.3.1-1, ACTION 6

As currently written, ACTION 6 is unclear and could be misinterpreted. It applies only when RPS scram functions on turbine main stop valve (MSV) closure or control valve (CV) fast closure are not automatically bypassed, and provides no guidance in the event the bypass fails to lift when thermal power is increased above 30%. In the worst case, the action statement could be interpreted literally to allow full power operation with the RPS functions still bypassed. Such operation would violate the licensing basis analysis for the MCPR operating limit (for the Generator Load Rejection Without Bypass transient), which takes credit for operation of the anticipatory scram on CV fast closure at greater than 30% of rated thermal power.

This Technical Specification change revises the action statement to state: "Initiate a reduction in THERMAL POWER within 15 minutes, and reduce THERMAL POWER to less than 30% of RATED THERMAL POWER within 2 hours." Whereas the current ACTION 6 revolves around restoration of the automatic bypass, this revision is clearly applicable when the RPS operating bypass

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has failed to lift during power ascension. It requires the operator to return the plant to a condition in which the anticipatory scram is not required (i.e., steam flow within bypass valve capacity, which corresponds to below 30% thermal power).

The format of this revision is similar to that used in the BWR/4 Standard Technical Specifications (STS), which references the analytical limit for thermal power. This is an accepted industry practice.

It should be noted that, although turbine first stage pressure is the controlling parameter for the RPS bypass instrumentation, ACTION 6 references percent of rated thermal power only. This is because there is no direct measure of turbine first stage pressure in the control room, and operator action is based on percent of rated thermal power. This revised action statement is consistent with existing PP&L procedures, which caution the operator not to exceed 30% power if the "Turbine Main Stop Valve Closure and Control Valve Fast Closure RPS Trip Bypass" annunciator has not cleared. This revision will result in both operating procedures and Technical Specifications referencing 30% power, which will eliminate a potential area of confusion.

(B) Table 3.3.1-1, Note(j)

Note (j) in Table 3.3.1-1 references the setpoint at which the RPS trip functions on turbine MSV closure and CV fast closure shall be automatically bypassed. While this Technical Specification Change request does not change the actual instrument setting, the setpoint referenced in note (j) is changed from the nominal value (turbine first stage pressure less than or equal to 108 psig, equivalent to 24% thermal power), to the analytical limit (turbine first stage pressure less than or equal to 136 psig, equivalent to less than 30% thermal power). The current note (j) gives the turbine first stage pressure in both units of psig and "percentage of the value of first stage pressure in psia at valves wide open (V.W.O.) steam flow." Percentage first stage pressure is equivalent to percentage of rated turbine load. Since percent load is the only direct indication of first stage pressure the reactor operator has in the control room, the reference to percentage first stage pressure is changed to percentage of rated turbine load for clarity. First stage pressure of 136 psig corresponds to 21% of rated turbine load. Additionally, the references to percent turbine load and percent thermal power have been moved from note (j) to the bases section of the Technical Specifications (bases 2.2.1.9 and 2.2.1.10). This was done to avoid confusing the reactor operator by specifying multiple parameters for a single setpoint. Reference to first stage pressure in psig is maintained in the footnote since this is the controlling parameter for the automatic bypass.

The revised note (j) is as follows: "This function shall not be automatically bypassed when turbine first stage pressure is greater than 136 psig." This is the opposite format of the existing footnote, which states "This function shall be automatically bypassed when..." This

revised format is for clarity and reflects the fact that the real safety significance of the bypass is that it must lift when required to allow the Reactor Protection System to perform when needed. The RPS anticipatory scrams on MSV closure and CV fast closure are important to safety at reactor power levels above 30% of rated thermal power. These RPS functions reduce the severity of turbine trips and generator load rejections, and credit is taken for their operation in the determination of MCPR operating limits.

Note (j) is revised to be consistent with the proposed revision to ACTION 6 by referencing the analytical limit for turbine first stage pressure. The use of the analytical limit in note (j) is an accepted industry practice (reference BWR/4 Standard Technical Specifications). Actual instrument setpoint calibration will still be to the nominal value.

The revised note (j) references turbine first stage pressure only, and not the equivalent percentage of rated thermal power or percent of turbine load. This is because multiple parameters specified for the same trip are potentially confusing to the operator, and turbine first stage pressure is retained because it is the actual initiating parameter for the RPS automatic bypass. Reference to percent of rated thermal power is deleted because it is already referenced in the Action Statement. Since the Technical Specification bases have been expanded in conjunction with this change to note (j), no useful information is being deleted. This change is only for clarity.

(C) Table 3.3.4.2-1, Note (b)

The End-of-Cycle Recirculation Pump Trip is automatically bypassed below 30% of rated thermal power. Since one purpose of the EOC-RPT is to quicken reactor shutdown following a turbine trip or generator load rejection (GLR), the EOC-RPT is not needed when the turbine MSV closure and CV fast closure RPS trip functions are bypassed. The EOC-RPT automatic bypass has the same basis as the RPS bypass for MSV closure and CV fast closure below 30% power.

Both automatic bypasses are controlled by the same instrumentation, setpoints, and administrative controls. Both are referenced in Technical Specifications footnotes as single values without surveillance requirements or allowable values, and are in near-identical format. The same justification for changing Table 3.3.1-1 note (j) also applies to this change to Table 3.3.4.2-1 note (b).

(D) Bases 2.2.1, "Reactor Protection System Instrumentation Setpoints," items 9 and 10, and Bases 3/4.3.4, "Recirculation Pump Trip Actuation Instrumentation"

Bases section 2.2.1 is expanded to include the basis for the automatic bypass of the RPS functions on turbine MSV closure and CV fast closure below 30% of rated power. Bases sections 2.2.1 and 3/4.3.4 are both

expanded to equate the turbine first stage pressure analytical limit of 136 psig with 21% of rated turbine load. This was done to provide the operator with a redundant, independent confirmation of turbine first stage pressure.

These proposed changes to the Technical Specifications Bases sections provide additional information only and do not change the existing bases for the Reactor Protection System or Recirculation Pump Trip instrumentation setpoints.

NO SIGNIFICANT HAZARDS CONSIDERATIONS

I. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

(A) The revision to Table 3.3.1-1 ACTION 6 clarifies the current action statement; it does not change the intent nor PP&L's interpretation of the action statement.

FSAR Chapter 15 transient analyses take credit for operation of the anticipatory scram functions on turbine MSV closure and CV fast closure for power levels greater than 30% NBR. The proposed revision to Table 3.3.1-1 ACTION 6 provides better assurance of the availability of the anticipatory scram function, since the Action Statement as currently written could be interpreted literally to allow full power operation with the RPS functions bypassed. Thus, the proposed Technical Specification change will only provide greater assurance of the proper functioning of the Reactor Protection System, and so does not increase the probability or consequences of any previously evaluated accident.

(B)&(C) The proposed revision of Table 3.3.1-1 note (j) and Table 3.3.4.2-1 note (b) does not change the operation or setpoint calibration of the RPS and EOC-RPT bypasses on turbine MSV closure and CV fast closure below 30% power. The turbine first stage pressure switches will still be calibrated in the same manner, and, by procedure, the reactor operator will not exceed 30% power if the trip bypass annunciator does not clear.

Since the proposed revisions to Table 3.3.1-1 note (j) and Table 3.3.4.2-1 note (b) do not change the design, operation, or administrative control of the RPS and EOC-RPT operating bypasses, they do not increase the probability or consequences of any previously evaluated accident.

(D) The changes to Bases Sections 2.2.1 and 3/4.3.4 provide clarification and additional information only and do not

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alter the existing bases for the RPS and EOC-RPT instrumentation setpoints.

II. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

(A),(B), (C),&(D) The proposed changes do not change the design or operation of the RPS and EOC-RPT operating bypasses, nor will they alter plant operation or instrument calibration practices. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

III. The proposed changes do not involve a significant reduction in a margin of safety.

(A) The revised Table 3.3.1-1 ACTION 6 will ensure that the intent of the RPS Technical Specification is met, thereby ensuring that the margin of safety provided by the Reactor Protection System is maintained.

(B)&(C) The revision of Table 3.3.1-1 note (j) and Table 3.3.4.2-1 note (b) will not change the operation or instrument setpoints for the RPS and EOC-RPT operating bypasses. Since the implementation of the RPS and EOC-RPT Technical Specifications will remain unchanged, the margin of safety for either system is not reduced.

(D) The changes to Bases Sections 2.2.1 and 3/4.3.4 provide clarification and additional information only and do not alter the existing bases for the RPS and EOC-RPT instrumentation setpoints.

Requests for additional information may be directed to Mr. L. Olson (215) 770-7859. Pursuant to 10CFR170.21, the appropriate fee is enclosed.

Very truly yours,

H. W. Keiser
Vice President-Nuclear Operations

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