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FACIL:50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
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SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards revised Section 7,6 to FSAR,clarifying pressure indicator monitoring,adding discussion of non-Class IE temp sensors & including average power rangemonitor upscale thermal trip.Revs will be incorporated into next FSAR rev.

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Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
FSAR SECTION 7.6
ER 100508 FILE 841-1
PLA-1836 Docket No. 50-388

Dear Mr. Schwencer:

In order to support obtaining an operating license for Susquehanna SES Unit 2, enclosed is a revised Section 7.6 of the Susquehanna SES FSAR. The revisions to this section are as follows:

7.6.1a.4.3.8.1 - This section has been revised to show a clarification that a pressure indicator monitors the pressure between the inner and outer head seal ring.

7.6.1b.1.2.4.1 - This section has been revised to add a discussion on the additional non-Class IE temperature sensors for Unit 2.

Table 7.6-5 - This table has been revised to include the APRM Upscale Thermal Trip.

These revisions will be incorporated into the next amendment to the FSAR.

Very truly yours,

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

Enclosure

cc: R. L. Perch NRC

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temperature sensing elements located in the service area of the fans. If high temperature is detected the electronic switches will initiate the low speed operation of the drywell cooling fans.

Electronic signal converters with full electrical input-output isolation are placed between safety related instrumentation and the input channels to the recorders.

Two redundant multipoint recorders for the primary containment pool temperature monitoring system provide a permanent history of all RTD measurements to the operator in the control room.

Each temperature sensing circuit is equipped with alarm switches and initiate one control room alarm per redundant channel.

One temperature indicator for the primary containment is located on the remote shutdown panel. Refer to Subsection 7.4.1:4 for system description. Instrument ranges are defined in Section 7.5.

Nine dual element RTDs per redundant system are located in the primary containment to sense the temperature in the Unit 2 drywell for a non-Class IE application. The signal from the RTD elements is received and recorded by two redundant multipoint recorders located on local panels.

7.6.1b.1.2.4.2 Equipment Design-Suppression Pool Temperature

The suppression pool temperature is monitored by two redundant systems,each of which performes as described below.

Eight RTD's per redundant system are located in the suppression pool approximately six inches below the minimum pool water level. These sensors are located around the pool in order to provide a good spatial distribution of pool temperature. Refer to Table 7.6-9 for the exact location of these sensors.

The signals from the sensors are processed by an electronic unit located on a main control room back panel. This electronic unit converts the RTD signals into degrees Fahrenheit and computes the average of the eight temperatures. If one of the RTD's fails, an error alarm is generated, and the failed RTD may be removed from the calculation of the average by operator action. The average value is displayed by digital indicators located both on the electronic unit, the main control board, and a vertical meter located on the RSP. A keyboard allows the operator to display any individual temperature input.

7.6.1a.4.3.7.2.2 Logic and Sequencing

No action is initiated by the safety/relief valve temperature monitoring circuit.

7.6.1a.4.3.7.2.3 Bypasses and Interlocks

There are no bypasses or interlocks associated with this subsystem.

7.6.1a.4.3.7.2.4 Redundancy and Diversity

No redundancy or diversity is required for this system.

7.6.1a.4.3.8 Reactor Vessel Head Leak Detection

7.6.1a.4.3.8.1 Subsystem Identification

A pressure between the inner and outer head seal ring will be sensed by a pressure indicator. If the inner seal leaks, the pressure indicator will monitor the pressure.

The plant will continue to operate with the outer seal as a backup and the inner seal can be repaired at the next outage when the head is removed. If both the inner and outer head seals leak, the leak will be detected by an increase in drywell temperature and pressure.

7.6.1a.4.3.8.2 Head Seal Integrity Pressure Monitoring

7.6.1a.4.3.8.2.1 Circuit Description

A pressure indicating switch will monitor the pressure between the inner and outer head seals.

TABLE 7.6-5

APRM SYSTEM TRIPS[1]

TRIP FUNCTION	TRIP POINT RANGE	ACTION
APRM downscale	2% to full scale	Rod block, annunciator white light display
APRM upscale (high)	Setpoint varied with flow, slope adjustable, intercepts separately adjustable	Rod block, annunciator amber light display
APRM upscale Thermal Trip[2]	Variables flow versus LPRM average power compared, slopes separately adjustable, intercept defined	Scram, annunciator, red[3] light display
APRM upscale (high-high)	2% to full scale	Scram, annunciator, red[3] light display
APRM inoperative	Calibrate switch or too few inputs	Scram, rod block, annunciator red light display
APRM Bypass	Manual Switch	White light

(1) See plant Technical Specifications for setpoints.

(2) APRM signal passes through a 6 second time constant circuit to simulate heat flux prior to comparison.

(3) Same red light display.