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SUBJECT: Forwards Proposed Amends 117 & 67 to Licenses NPF-14 & NPF-22,respectively,clarfifying TS 3.4.3.1 action statement.

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SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENTS 117 AND 67 TO
LICENSE NOS. NPF-14 AND NPF-22:
CHANGES TO THE SSES UNITS 1 & 2
TECHNICAL SPECIFICATIONS TO DELETE
REFERENCE TO THE DRYWELL FLOOR DRAIN
SUMP FLOW RATE MONITORING SYSTEM
AND CLARIFY ACTION STATEMENTS FOR
SPECIFICATION 3.4.3.1 Docket Nos. 50-387
PLA-3104 FILES A17-2, R41-2 and 50-388

Dear Dr. Butler:

The purpose of this letter is to propose changes to the Susquehanna SES Units 1 and 2 Technical Specifications to delete reference to the Drywell Floor Drain Sump Flow Rate Monitoring System and to clarify the action statement of Technical Specification 3.4.3.1.

BACKGROUND

The action prescribing remedial measures required under designated conditions in Specification 3.4.3.1, "Reactor Coolant System Leakage, Leakage Detection Systems" is unclear and permits non-conservative interpretations. It states:

> "With only two of the above required leakage detection systems OPERABLE, operations may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours when the required gaseous or particulate radioactive monitoring system is inoperable; otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours."

A non-conservative interpretation of this action would permit continued operation when both the drywell floor drain sump level channels and the flow rate monitoring system are inoperable, which is contrary to the intent of the Limiting Condition for Operation. Changes to the Technical Specification action statement are required to more definitively describe remedial measures required under designated conditions.

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In addition, the Flow Rate Monitoring System does not provide accurate flow measurement due to the shortness of the pumping cycle, air entrainment in the line, and backflow through the flowmeter when the drywell equipment drain tank is being drained. It has been determined that although modifications could be made to overcome the air entrainment and backflow problems, accuracy problems would remain due to the short pumping cycle. Therefore, the Flow Rate Monitoring System has been determined to be not suitable for measuring drywell unidentified leakage and should not be referenced in the technical specification.

DESCRIPTION OF CHANGE

PP&L is proposing to:

- Delete the flow rate monitoring system from the listing of systems required to be operable in the LIMITING CONDITION FOR OPERATION of Specification 3.4.3.1; i.e.:

  3.4.3.1 At least the following reactor coolant system leakage detection systems shall be OPERABLE:

  a. Two drywell floor drain sump level channels, and

  b. One primary containment atmosphere gaseous radioactivity monitoring system channel and one containment atmosphere particulate radioactivity monitoring system channel aligned to the drywell.

- Revise the action of 3.4.3.1 prescribing remedial measure required when: (1) Either the gaseous or particulate radioactivity monitoring system is inoperable, or (2) one channel of the drywell floor drain sump level monitoring system is inoperable; i.e.:

  a. With one or both channels of the drywell floor drain sump level monitoring system inoperable, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

  b. With both channels of the gaseous radioactivity monitoring system inoperable or with both channels of the particulate radioactivity monitoring system inoperable, operation may continue for up to 30 days provided grab samples of the containment atmosphere are obtained and analyzed at least once per 24 hours. If at least one channel of the affected monitoring system cannot be returned to OPERABLE status and aligned to the drywell within 30 days, or the grab samples are not obtained and analyzed as required, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

- Revise 4.4.3.1, SURVEILLANCE REQUIREMENTS to delete reference to the flow rate monitoring system; i.e.:

  4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

  a. Primary containment atmosphere particulate and gaseous monitoring systems-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

  b. Drywell floor drain sump level monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

- Revise 4.4.3.2.1, SURVEILLANCE REQUIREMENTS, to delete the option of monitoring the flow rate; i.e.:

  4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

  a. Monitoring the primary containment atmospheric particulate and gaseous radioactivity at least once per 4 hours, and

  b. Monitoring the drywell floor drain sump level at least once per 4 hours.

  c. Determining the total IDENTIFIED LEAKAGE at least once per 24 hours.

SAFETY ANALYSIS

Reactor coolant system leakage detector systems required by this specification were provided to monitor and detect leakage from the reactor coolant pressure boundary. The primary detection methods for small unidentified leakage within the primary containment are monitoring of the containment floor drain sump fill-up time and airborne gaseous and particulate radioactivity increases.

Regulatory Guide 1.45 recognizes that water flow rate changes of from 0.5 to 1.0 gpm can be readily detected in containment sumps by monitoring changes in sump level in-flow rate, or in the operating frequency of pumps. The Drywell Floor Drain Sump Monitoring System is described in FSAR section 5.2.5.1.2.4. The staff concluded in the Susquehanna Safety Evaluation Report (NUREG 0776) that: "The sump in the drywell is capable of detecting an increase in unidentified leakage of one gallon within one hour which satisfies the sensitivity requirements of Regulatory Guide 1.45."

The Drywell Floor Drain Sump flow rate monitoring system was installed in Unit 1 at Susquehanna SES to provide a redundant means of quantifying unidentified leakage collected in the containment floor drain sump. There is no adverse impact in removing the flow rate monitoring system from the plant or the

Technical Specification because it is completely redundant backup to the Drywell Floor Drain Sump Level Monitoring System which was evaluated in the original licensing submittal.

Revising the action prescribing remedial measures under designated conditions in Specification 3.4.3.1 eliminates the potential of a non-conservative interpretation by more definitively describing remedial measures. Previous wording could have been interpreted to permit continued operation when both the drywell floor drain sump level channels and the flow rate monitoring system were inoperable, which is contrary to the intent of the Limiting Condition for Operation.

NO SIGNIFICANT HAZARDS CONSIDERATIONS

The proposed change does not:

I. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The primary methods for accurately detecting small unidentified leakage within primary containment are unchanged by the deletion of the Flow Rate Monitoring System. (See FSAR Section 5.2.5.1.2.4) The Flow Rate Monitoring System was intended to provide a redundant backup to the Drywell Floor Drain Sump Level System for quantifying unidentified leakage flow rate. The capability to determine unidentified leakage flow rate within required accuracies is not affected by the deletion of the Flow Rate Monitoring System.

The revised action statement of Technical Specification 3.4.3.1 precludes a non-conservative interpretation of remedial measures to be taken under designated conditions.

Based on these conclusions, no significant change occurs to the probability or consequences of any previously analyzed accident.

II. Create the possibility of a new or different kind of accident from any previously evaluated.

This change reflects the removal of a system which provides redundancy for unidentified leakage flow measurement. There is no requirement for the redundancy nor does its elimination affect the capability of quantifying unidentified leakage flow rate.

Changes to the action statement of Technical Specification 3.4.3.1 preclude a non-conservative interpretation of remedial measures to be taken under designated conditions.

III. Involve a significant reduction in a margin of safety.

The capability to accurately quantify unidentified leakage is not compromised by the deletion of the Flow Rate Monitoring System. The Flow Rate Monitoring System provided redundant backup to the Drywell Floor Drain Sump Level System. Deletion of the Flow Rate Monitoring System does not reduce any safety margin.

Changes to the action statement of Technical Specification 3.4.3.1 preclude a non-conservative interpretation of remedial measures to be taken under designated conditions.

Any questions on the above material should be directed to Mr. W. W. Williams at (215) 770-7910. Pursuant to 10CFR170, the appropriate fee is enclosed. We request approval of this amendment by April 1, 1989.

Very truly yours,

H. W. Keiser

cc: NRC Document Control Desk (original)
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