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SCHWENCER,A. Licensing Branch 2

SUBJECT: Requests change to Tech Specs 3.8.1.1,4.8.1.1.1 & 4.8.1.1.2, amending requirement to have all four diesels operable within 72-h to 7 days.

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June 23, 1982

Mr. A. Schwencer, Chief
Licensing Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
TECHNICAL SPECIFICATION CHANGES
ER 100450 FILE 841-8 Docket Nos. 50-387
PLA-1143 50-388

Dear Mr. Schwencer:

The purpose of this letter is to request a change to Technical Specifications 3.8.1.1, 4.8.1.1.1, and 4.8.1.1.2. These changes reflect the unique design features of Susquehanna SES and are not generic changes to the standard Technical Specifications for BWR's.

The proposed changes are as follows: (See Attachment A)

a) In the ACTIONS associated with Specification 3.8.1.1 change the requirement to have all four diesels OPERABLE within 72 hours to 7 days.

b) In Specifications 4.8.1.1.1b and 4.8.1.1.2d delete the words "during shutdown".

These changes are necessary to support two unit operation. Since the diesel generators are a shared system at Susquehanna SES, both units would have to be shut down when a diesel is out of service for more than 72 hours. Also both units would have to be shutdown in order to perform the manufacturer's recommended maintenance every 18 months. This maintenance requires that a diesel generator be taken out of service for a period of greater than 72 hours.

The design of the diesel generators at Susquehanna SES is similar to the design of the diesel generators at Peach Bottom with respect to the sharing of diesel generators between units. The Technical Specifications for Peach Bottom (see Attachment B) allow for a diesel generator outage for 7 days and allow the manufacturer's recommended maintenance to be done annually and not "during shutdown." The Peach Bottom Station has been in commercial operation since 1974 and has not experienced any difficulties in operation using these Technical Specifications.

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Calculations were made to determine the effect on risk of having the diesels out for maintenance for seven days each diesel, one at a time.

Consider for example a large loss of coolant accident (LOCA) combined with both offsite AC power sources out of service, an event occurring roughly once in 100 million years at a two unit plant. In this event, three diesels would be required. If all four diesels were in service, failure to prevent severe core damage would consist of any two out of the four diesels failing to start and run. If one diesel was down for maintenance, failure would consist of any one of the three diesels failing.

To compare the overall risk between doing preventive maintenance during operation and doing it only during shutdown we compared the time averaged probability of insufficient diesels responding to the LOCA in the two situations. It turned out, using diesel generator failure on demand data from the Limerick Generating Station Probabilistic Risk Assessment Study (which used data from the Peach Bottom diesel generators as input, see Attachment C) that the increase in risk was approximately 3% if this maintenance was done during operation. By Probabilistic Risk Assessment standards this is an insignificant risk.

Also Susquehanna SES should not be reviewed against Regulatory Guide 1.93 which imposes the 72 hour requirement since the Safety Evaluation Report (SER) for the construction permit for Susquehanna SES was issued on March 17, 1972. As stated in Section D, Implementation of Regulatory Guide 1.93, "... this guide will be used by the Regulatory Staff in evaluating all construction permit applications for which the issue date of the Safety Evaluation Report (SER) is July 1, 1974, or after."

In summary, the Technical Specifications for the diesel generators for Susquehanna SES should be changed as requested since:

1. the diesel generators were designed and constructed similar to existing nuclear power plants which have more practical Technical Specifications which have, in turn, presented no safety problems;

2. the risk of having a diesel generator out of service for maintenance and having another diesel generator fail is low, and

3. the regulatory guidance that is the source of the problem states that it should not be applied to Susquehanna SES, which was designed when the proposed changes were in use.

If you have any questions on this matter of urgent concern, please contact me.

Very truly yours,

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

CTC/RRS/mks