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SUBJECT: Forwards corrected page to 911104 response to NRC Request 6  
           re turbine bldg steam tunnel. Temp gradient should be 40 F  
           instead of 90 F.

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DEC 17 1991

Director of Nuclear Reactor Regulation  
Attention: Mr. C.L. Miller, Project Director  
Project Directorate I-2  
Division of Reactor Projects  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

**SUSQUEHANNA STEAM ELECTRIC STATION  
REVISED RESPONSE TO REQUEST NO. 6  
SUBMITTED IN PLA-3657, DATED 11/4/91 :  
TURBINE BUILDING STEAM TUNNEL  
PLA-3686 FILES R41-2/A17-2**

Docket Nos. 50-387  
and 50-388

Dear Mr. Miller:

In our response (PLA-3657, dated 11/4/91) to your Request No. 6 on the revisions to the turbine building steam tunnel temperature isolation setpoints, an erroneous high temperature gradient along the length of the tunnel was given. The temperature gradient should have been 40°F instead of 90°F. Attached is a corrected response and page.

If you have any questions, please contact Mr. C.T. Coddington at (215) 774-7915.

Very truly yours,

H. W. Keiser

Attachment

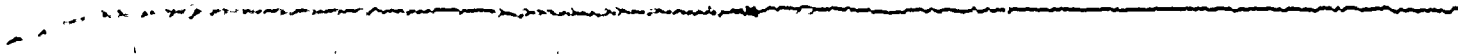
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REQUEST NO. 6

Current operating problems may be indicative of degraded air conditioning/ventilation performance. What assurance is there that this is not a contributing factor?

Response

The high temperatures in the Turbine Building main steam tunnel are not indicative of degraded air conditioning/ventilation performance. The statement that the air conditioning/ventilation performance has not degraded is based on the fact that the range of the inlet air temperature has not changed (except for seasonal variations) since the plant began service in 1982.

As shown in Attachment C, the turbine building steam tunnel is a long, narrow, L-shaped room which is open at the end facing the turbine-generator. The HVAC supply duct is located at the Reactor Building end of the tunnel and the exhaust duct is located at the turbine-generator end. The design intent was that the cool air would travel down the length of the tunnel picking up heat along the way. However, the actual heat loads that exist in this area were greater than the original design considered. This condition resulted in an unacceptably high temperature gradient along the length of the tunnel, sometimes as great as 40°F. The performance of the HVAC system was optimized to the extent possible to reduce this problem. The actions taken included air balancing, fan performance monitoring, chiller monitoring, and installation of free standing fans to provide better mixing.

The requested setpoint changes were not intended as a solution for the present heat load. The requested setpoint changes are required to provide sufficient margin above normal operating temperatures and to provide sufficient margin above expected HVAC system transients including loss of HVAC. During this type of transient, it would not be prudent to cause an MSIV isolation and a full power reactor scram.

REQUEST NO. 7

Aside from the automatic isolation function, the ASME Code states certain requirements relative to degraded components and piping. How is compliance with the ASME Code assured when a crack develops that does not exceed the criteria for automatic isolation?



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