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 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylvania  
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 CURTIS, N.W.      Pennsylvania Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION  
 SCHWENCER, A.      Licensing Branch 2

DOCKET #  
05000387  
 05000388

SUBJECT: Submits actions taken in response to findings resulting from NRC review of fire protection program & fire hazards analysis during wk of 850318. Control room panels will be reanalyzed. Summary of analysis will be submitted by 850624.

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Pennsylvania Power & Light Company

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Norman W. Curtis  
Vice President-Engineering & Construction-Nuclear  
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APR 8 1985

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

SUSQUEHANNA STEAM ELECTRIC STATION  
FIRE PROTECTION REANALYSIS  
ER 100450 FILE 143  
PLA-2443

Docket Nos. 50-387  
50-388

Dear Mr. Schwencer:

This letter documents actions to be taken by Pennsylvania Power & Light Company in response to findings resulting from the NRC staff's review of the Susquehanna Steam Electric Station Fire Protection Program and Fire Hazards Analysis conducted during the week of March 18, 1985.

Control Room Reanalysis

During its review, the staff requested that the existing control room fire hazards be reanalyzed. PP&L commits to reanalyze the control room panels with respect to the effects of a fire. The criteria for this reanalysis will be Section III.G. to Appendix R to 10CFR50.48 with the following assumptions:

1. A fire in the control room will cause an evacuation of the control room.
2. The reactor is manually scrammed in the control room prior to evacuation and all control rods are inserted.
3. There will be two conditions assumed relative to the availability of off-site power:
  - a. Off-site power is available throughout the entire event.
  - b. Off-site power is lost concurrent with the control room fire and is not available for a period of 72 hours.
4. The automatic function of valves and pumps are lost if control circuits could be adversely affected by a control room fire.

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5. Manual actions outside the control room to restore power, assure valve lineups, and assure pump operability are acceptable.
6. Manual actions outside the control room are acceptable to correct spurious actuation of equipment.

#### Review of Non-Rated Boundaries

Boundaries of safety related fire zones which are non-rated will be reviewed to confirm that they will contain the fire attributed to them. If the boundaries will not contain the assumed fire, they will either be upgraded or the analysis will demonstrate that the boundaries are not necessary fire barriers. The following assumptions will be applied during this review:

1. The fire attributed to a fire zone will be based upon an average combustible loading equal to twice the installed combustible loading in the zone. This will account for possible transient combustibles.
2. For a boundary to be demonstrated unnecessary as a fire barrier, the following criteria will be applied:
  - a. If redundant essential safe shutdown raceways are separated by a horizontal distance of at least 50 feet, no further protection is provided.
  - b. If redundant essential safe shutdown raceways are separated by a horizontal distance of less than 50 feet, fixed automatic fire suppression shall be provided to protect an area at least 50 feet horizontally on either side of the essential minority raceway.
  - c. If redundant essential safe shutdown raceways are separated by less than 50 feet and not protected by fixed automatic fire suppression, the raceways of one division will be enclosed in a fire barrier having a 3-hour fire rating for a projected horizontal distance of 50 feet. (Either side of the essential minority raceway).
  - d. If redundant essential safe shutdown raceways are separated by less than 20 feet and protected by fixed automatic fire suppression, the raceways of one division will be enclosed in a fire barrier having a 1-hour fire rating for a projected horizontal distance of 20 feet. (Either side of the essential minority raceway).

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- e. Partial credit will be taken for a boundary where safe shutdown components are located on both sides of the boundary and less than 20 feet of separation exist. This option will only be exercised when both zones contain sprinkler protection and where prior concurrence has been received by the staff.
- f. A fire will not propagate past the adjacent zones.

Schedule

The analysis and any interim procedures required as a result thereof will be completed no later than June 24, 1985. The summary of our analysis will be submitted at that time.

Very truly yours,



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

cc: R. H. Jacobs           NRC  
M. J. Campagnone       NRC

April 1, 1985

DOCKET NO(S). 50-387/388

Mr. Norman W. Curtis, Vice President  
 Engineering and Construction  
 Pennsylvania Power & Light Company  
 2 North Ninth Street  
 Allentown, Pennsylvania 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

The following documents concerning our review of the subject facility are transmitted for your information.

- Notice of Receipt of Application, dated \_\_\_\_\_.
- Draft/Final Environmental Statment, dated \_\_\_\_\_.
- Notice of Availability of Draft/Final Environmental Statement, dated \_\_\_\_\_.
- Safety Evaluation Report, or Supplement No. \_\_\_\_\_, dated \_\_\_\_\_.
- Notice of Hearing on Application for Construction Permit, dated \_\_\_\_\_.
- Notice of Consideration of Issuance of Facility Operating License, dated \_\_\_\_\_.
- Monthly Notice; Applications and Amendments to Operating Licenses Involving no Significant Hazards Considerations, dated March 1985.
- Application and Safety Analysis Report, Volume \_\_\_\_\_.
- Amendment No. \_\_\_\_\_ to Application/SAR dated \_\_\_\_\_.
- Construction Permit No. CPPR- \_\_\_\_\_, Amendment No. \_\_\_\_\_ dated \_\_\_\_\_.
- Facility Operating License No. \_\_\_\_\_, Amendment No. \_\_\_\_\_, dated \_\_\_\_\_.
- Order Extending Construction Completion Date, dated \_\_\_\_\_.
- Other (Specify) \_\_\_\_\_

Office of Nuclear Reactor Regulation

Enclosures:  
 As stated

cc: See next page

OFFICE	LB#2/DL						
SURNAME	EHylton						
DATE	04/1/85						