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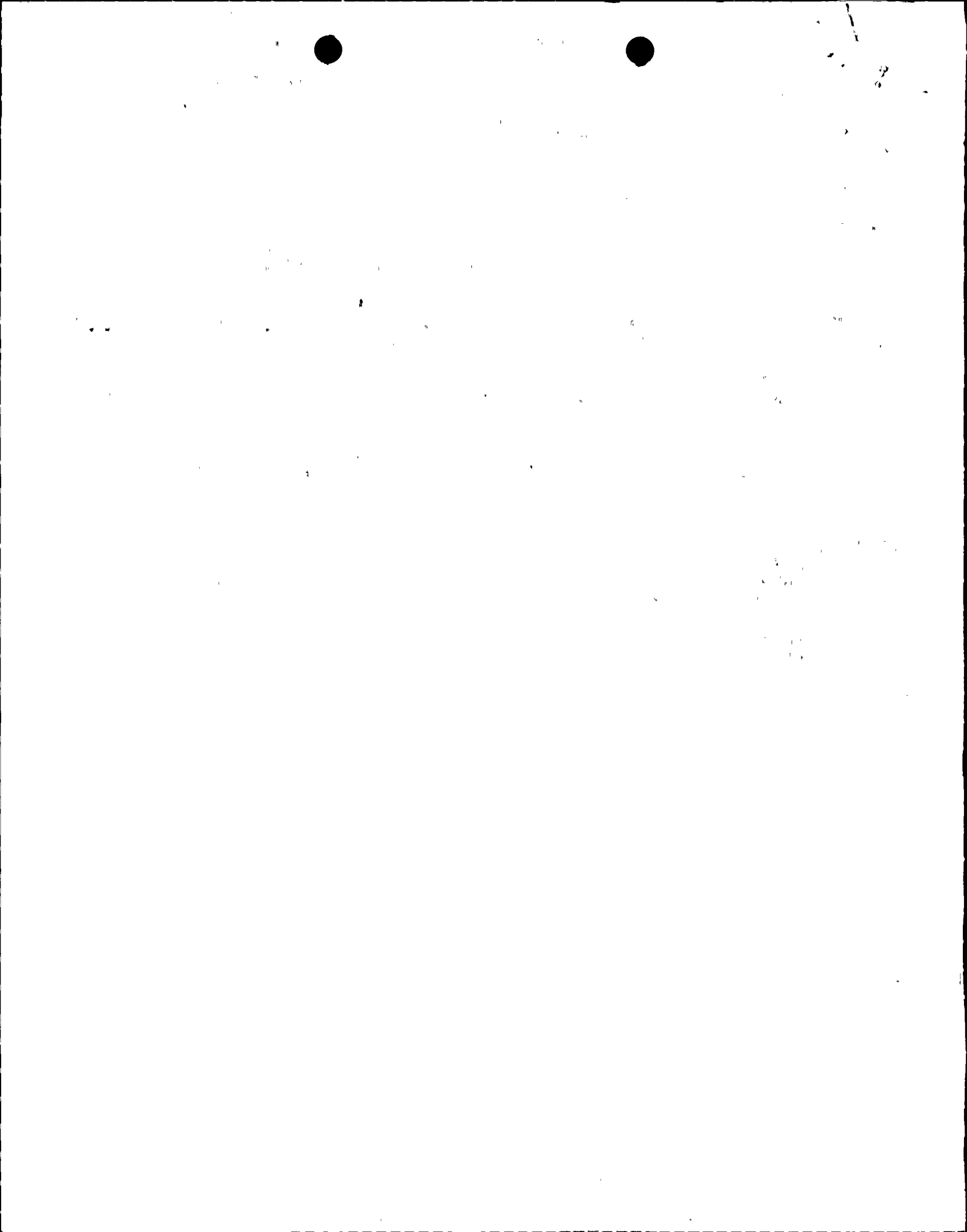
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 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva      05000387  
 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva      05000388  
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 KEISER, H. W.      Pennsylvania Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION  
 BUTLER, W. R.      Project Directorate I-2

SUBJECT: Forwards rev to App R Deviation Request 3, "Fire Doors - Non-Rated," in response to Enforcement Action 85-112. Encl rev addresses water tight doors in fire barriers separating listed fire zones.

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	NRR/DEST/PSB	1 1	OGC/HDS2	1 0
	<u>REG FILE</u> 01	1 1		
EXTERNAL:	LPDR	2 2	NRC PDR	1 1
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Harold W. Keiser  
Vice President-Nuclear Operations  
215/770-7502

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Director of Nuclear Reactor Regulation  
Attn.: Dr. W. R. Butler, Project Director  
Project Directorate I-2  
Division of Reactor Projects  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION  
REVISION TO APPENDIX R DEVIATION  
REQUEST NO. 3  
PLA-2917

FILE A17-15

Docket Nos. 50-387  
and 50-388

Dear Dr. Butler:

In our response to Enforcement Action 85-112 (PLA-2887, dated 7/15/87), we committed to provide a revised Appendix R Deviation Request No. 3, "Fire Doors - Non-Rated", prior to start up following Susquehanna SES Unit 1 third refueling and inspection outage. Attached is the revision to the deviation request which addresses the water tight doors in the fire barriers separating Fire Zones 1-1E and 1-1F in Unit 1 and Fire Zones 2-1E and 2-1F in Unit 2. Also please note the following:

- 1) On page 1 of the Deviation Request, the type II doors fire resistance rating was changed to state ". . . at least 1½ hours . . ." so as to be consistent with the wording for the other door types.
- 2) All the Factory Mutual recommended modifications to the doors in the deviation request are complete except for Door #531. The modifications to this door have been entered in our plant work authorization system and should be completed in the near future.
- 3) In Supplement 3, dated May 1987, to the Evaluation of Selected Fire Door and Door Frame Assemblies Report, Door #115 has been corrected to be Door #115-R. This error was an oversight when the report was being prepared.

If you have any questions, please contact us.

Very truly yours,

H. W. Keiser  
Vice President-Nuclear Operations

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cc: (NRC Document Control Desk (original))<sup>4</sup>

NRC Region I

Mr. L. R. Plisco, NRC Resident Inspector

Mr. M. C. Thadani, NRC Project Manager

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APPENDIX R DEVIATION REQUEST

FIRE DOORS - NON-RATED

DEVIATION REQUEST:

Existing unlabeled, untested, doors are acceptable for use as fire doors based on confirmation by Factory Mutual that the doors are of sufficient construction to provide equal or better fire resistance to that of a rated fire door.

Existing watertight doors which have not been fire tested are acceptable as 1½ hour fire doors based on Factory Mutual's evaluation of these doors.

FIRE ZONES AFFECTED:

For the effected fire zones see Table 3-1.

REASON FOR DEVIATION REQUEST:

Various fire barriers within the Unit 1 and 2 Reactor Buildings have been identified as requiring 3 hour fire rating to meet the requirements of Appendix R. Existing doors within these barriers are not fire rated (see Table 3-1 for a listing of these doors).

JUSTIFICATION:

There are three types of doors within the Reactor Buildings. Factory Mutual has reviewed each door type, and door within that type, and compared them to either known data or an existing fire rated door at Susquehanna.

Water Tight Doors (Type I)

Factory Mutual in their January 1985 and August 1987 Reports concluded that these special purpose (flood) doors would be expected to provide at least 1½ hours of fire resistance (see Attachments 1 and 5).

Pressure Resistance Doors (Type II)

Factory Mutual in their August 1985 and June 1986 Reports compared various non-labeled pressure resistant doors, with pressure resistant door number 279 which is an Underwriter's Laboratories labeled 3-hour fire door. Factory Mutual concluded that the doors would be expected to provide at least 1½ hours of fire resistance (see Attachments 2 and 3).

### Hollow Steel Doors (Type III)

Factory Mutual in their August 1985 and June 1986 Reports compared various non-labeled hollow metal doors with hollow metal door number 421 which is an Underwriter's Laboratories labeled 3-hour fire door. Factory Mutual concluded that the doors should be expected to provide at least 1½ hours of fire resistance.

In their May 1987 Report (see Attachment 4), Factory Mutual compared various non-labeled hollow metal doors with hollow metal door number 115-R which is an Underwriter's Laboratories labeled 1½ hour fire door. Factory Mutual concluded that these doors should be expected to provide at least 1½ hours of fire resistance.

The combustible loading in the Reactor Buildings have been conservatively estimated and a 15-minute allowance for transient has been provided. The present calculated average combustible loading in each Reactor Building Fire Zone is less than 1 hour. Changes in these combustible loadings are expected over the plant life time. This Deviation Request is valid so long as:

- o The calculated maximum average combustible loading in the fire zones adjacent to these fire barriers is below the minimum rating of the door.
- o The concentrated combustible loading adjacent to these fire barriers is calculated to be below the minimum fire rating of the door.

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DEVIATION REQUEST NO. 3

FIRE DOORS - NON-RATED

TABLE 3-1

<u>WALL BETWEEN FIRE ZONES</u>	<u>UNIT NUMBER</u>	<u>DOOR NUMBER</u>	<u>DOOR TYPE</u>	<u>FM REPORT</u>
1-1A/1-1B	1	13	I	1/85
1-1E/1-1F	1	23	I	8/87
1-2A/1-2B	1	111	II	8/85
1-3A/1-3B-N	1	201	II	8/85
1-4A-S/1-4G	1	407	II	6/86
1-5A-W/1-5E	1	515	III	8/85
1-5B/1-5A-N	1	531*	III	5/87
2-1A/2-1B	2	14	I	8/87
2-1E/2-1F	2	24	I	8/87
2-1I/2-6A	2	115-R	III	5/87
2-2A/2-2B	2	112	II	6/86
2-3A/2-3B-N	2	202	II	6/86
2-4A-S/2-4G	2	408	III	5/87
2-5E/2-5A-W	2	514	III	6/86
2-5A/2-5B	2	530	III	6/86
2-4G/2-6A	2	711	II	6/86

\*This door was inadvertently numbered as door 504 in PLA-2762.  
The correct door number is 531.

SUSQUEHANNA STEAM ELECTRIC STATION - UNITS 1 & 2  
FIRE PROTECTION PROGRAM - CONCERN #1  
DOCKETS NO. 50-387  
50-388

APPENDIX A - EXEMPTION REQUESTS

EXEMPTION REQUEST NO. 3

ATTACHMENT 1