

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS) P-4

ACCESSION NBR: 8311150265 DOC. DATE: 83/11/11 NOTARIZED: NO DOCKET #
 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylvania 05000388
 AUTH. NAME AUTHOR AFFILIATION
 CURTIS, N.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 SCHWENCER, A. Licensing Branch 2

SUBJECT: Forwards revised FSAR Section 3.4 describing interconnection between HPCI & RCIC rooms. Rev will be incorporated in next FSAR amend.

DISTRIBUTION CODE: B001S COPIES RECEIVED: LTR ENCL SIZE: 3
 TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

NOTES: 1cy NMSS/FCAF/PM. LPDR 2cys. 05000388

	RECIPIENT		COPIES			RECIPIENT		COPIES	
	ID CODE/NAME		LTR	ENCL		ID CODE/NAME		LTR	ENCL
	NRR/DL/ADL		1	0	NRR LB2 BC		1	0	
	NRR LB2 LA		1	0	PERCH, R.	01	1	1	
INTERNAL:	ELD/HDS4		1	0	IE FILE		1	1	
	IE/DEPER/EPB 36		3	3	IE/DEPER/IRB 35		1	1	
	IE/DEQA/QAB 21		1	1	NRR/DE/AEAB		1	0	
	NRR/DE/CEB 11		1	1	NRR/DE/EHEB		1	1	
	NRR/DE/eqb 13		2	2	NRR/DE/GB 28		2	2	
	NRR/DE/MEB 18		1	1	NRR/DE/MTEB 17		1	1	
	NRR/DE/SAB 24		1	1	NRR/DE/SGEB 25		1	1	
	NRR/DHFS/HFEB40		1	1	NRR/DHFS/LQB 32		1	1	
	NRR/DHFS/PSRB		1	1	NRR/DL/SSPB		1	0	
	NRR/DSI/AEB 26		1	1	NRR/DSI/ASB		1	1	
	NRR/DSI/CPB 10		1	1	NRR/DSI/CSB 09		1	1	
	NRR/DSI/ICSB 16		1	1	NRR/DSI/METB 12		1	1	
	NRR/DSI/PSB 19		1	1	NRR/DSI/RAB 22		1	1	
	NRR/DSI/RSB 23		1	1	<u>REG FILE</u> 04		1	1	
	RGN1		3	3	RM7DDAMI/MIB		1	0	
EXTERNAL:	ACRS 41		6	6	BNL (AMDTs ONLY)		1	1	
	DMB/DSS (AMDTs)		1	1	FEMA-REP DIV 39		1	1	
	LPDR 03		2	2	NRC PDR 02		1	1	
	NSIC 05		1	1	NTIS		1	1	
NOTES:			3	3					

TOTAL NUMBER OF COPIES REQUIRED: LTR 57 ENCL 50



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Norman W. Curtis
Vice President-Engineering & Construction-Nuclear
215/770-7501

NOV 11 1983

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

SUSQUEHANNA STEAM ELECTRIC STATION
FSAR SECTION 3.4
ER 100508 FILE 841-1
PLA-1865

Docket No. 50-388

Dear Mr. Schwencer:

In order to support obtaining an operating license for Susquehanna SES Unit 2, enclosed is revised Section 3.4 of the Susquehanna SES FSAR. The revision to this section is as follows:

3.4 - This section has been revised to provide a description of the interconnection between the HPCI and RCIC rooms in Unit 2. This revised section also contains an analysis of the flooding of these rooms.

This revision will be incorporated in the next amendment to the FSAR.

Very truly yours,

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

Enclosure

cc: R. L. Perch NRC

8311150265 831111
PDR ADOCK 05000388
A PDR

300/
1/1



Handwritten marks and numbers in the top right corner.

Faint handwritten text or markings in the bottom left corner.

3.4 WATER LEVEL (FLOOD) DESIGN

As discussed in Section 2.4, all Seismic Category I structures are secure against flooding due to probable maximum flood (PMF) of the Susquehanna River or probable maximum precipitation (PMP) on the area surrounding the plant. Therefore, special flood protection measures are unnecessary. The Seismic Category I structures have, however, been designed for hydrostatic loads resulting from groundwater, as discussed in Section 3.8. The groundwater table is at elevation 665 MSL in the main plant area.

A postulated break in the cooling tower basins or of the water delivery pipes to the basin could result in a build-up of water against the walls of either or both of the ESSW pumphouse and the turbine building. In the event of such water build-up breaching the turbine building wall, water that would not be intercepted by the floor drains or grilles and thus would flow through the turbine building to the reactor building would be prevented from endangering equipment in the latter by means of watertight doors. Flood water building up against the ESSW pumphouse would also be prevented from entering the building by means of watertight doors. Impact forces and water pressure due to flood water will not endanger the integrity of the ESSW pumphouse.

All safety-related systems are located in the Reactor Building, Diesel Generator Building, Control Structure and the Engineered Safeguard Service Water (ESSW) Pumphouse.

Sufficient physical separation between these buildings is provided to prevent internal spreading of any floods from one building to another.

Redundant Engineered Safety Features, pumps and drives, heat exchangers and associated pipes, valves and instrumentation in the reactor building subject to potential flooding, are housed in separate watertight rooms, with the exception of HPCI and RCIC rooms in Unit 2. Seismic Category I level detectors trip alarms in the main control room when the water level in any room exceeds the set point. Isolation of the floor drainage lines from these rooms is provided by outside manual valves.

All other rooms in the reactor building and control structure containing safety related equipment which are subject to potential flooding by process fluid leakage or fire protection water are provided with at least one open floor drain.

Floods in excess of the approximately 80 gpm floor drain capacity increase the water level in the affected area and are released through the door-to-floor clearance of these rooms.

Refer to Subsection 9.3.3 for a detailed description of the reactor building and control structure drainage system.

The four diesel generator sets are housed in individual water tight compartments within the diesel generator building. Floor drain line branches from each of these compartments are equipped with check valves to prevent backflooding from the common sump..

The ESSW pumphouse is divided into two redundant compartments. Flooding from internal leakage would, therefore, only affect one of the redundant pump sets. The control and electrical panels are mounted on minimum 4 inch high concrete pads or structural supports. Operating floor openings allow drainage of any leakage to the ESSW pump suction space below or to a reserve sump space that could be emptied with a portable pump.

The HPCI and RCIC rooms in Unit 2 are interconnected through a vent plenum which leads to the common blowout panel. Flooding in either room could potentially spill over to the other via the vent path. The vent path is 10'-8" above the floor. A moderate energy pipe break in each room has been postulated and analyzed in consistence with BTP APCS3-1. It is conservatively estimated, without taking credit for floor drain capacity, that it will take approximately 13 hours for the maximum moderate energy pipe crack leakage in the RCIC room to overflow into the HPCI room, and 5 hours from HPCI room to RCIC room. The maximum moderate energy pipe crack leakage that cannot be isolated from outside these pump rooms will take approximately 23 hours to overflow from RCIC room to the HPCI room and 6 hours to overflow from HPCI room to RCIC room. There is sufficient time to identify the pipe failure and take appropriate action to mitigate the consequence of pipe failure prior to overflow occurred between these two interconnected rooms.