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SEP 13 1984

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

Docket No. 50-352
50-353

SUBJECT: Limerick Generating Station, Units 1 and 2
Information for Auxiliary Systems Branch (ASB)
Regarding Technical Specification Surveillance
Requirement 4.6.1.4

REFERENCES: Telecon between ASB & PECO on 9/13/84

FILE: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

Attached is a draft change to FSAR Figure 6.7-2 which is being made as a result of the referenced telecon.

The information contained on this draft FSAR change will be incorporated into the FSAR, exactly as it appears on the attachment, in the revision scheduled for October 1984.

Sincerely,

John Ballenger
J. Kemper

JHA/dg/09138405

Attachment

Copy to: (See Attached Service List)

8409180233 840913
PDR ADOCK 05000352
A PDR

A001
1/1

cc: Judge Lawrence Brenner (w/enclosure)
Judge Peter A. Morris (w/enclosure)
Judge Richard F. Cole (w/enclosure)
Judge Christine N. Kohl (w/enclosure)
Judge Gary J. Edles (w/enclosure)
Judge Reginald L. Gotchy (w/enclosure)
Troy B. Conner, Jr., Esq. (w/enclosure)
Ann P. Hodgdon, Esq. (w/enclosure)
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Mr. Robert L. Anthony (w/enclosure)
Ms. Maureen Mulligan (w/enclosure)
Charles W. Elliot, Esq. (w/enclosure)
Zori G. Ferkin, Esq. (w/enclosure)
Mr. Thomas Gerusky (w/enclosure)
Director, Penna. Emergency
Management Agency (w/enclosure)
Angus R. Love, Esq. (w/enclosure)
David Wersan, Esq. (w/enclosure)
Robert J. Sugarman, Esq. (w/enclosure)
Martha W. Bush, Esq. (w/enclosure)
Spence W. Perry, Esq. (w/enclosure)
Jay M. Gutierrez, Esq. (w/enclosure)
Atomic Safety & Licensing
Appeal Board (w/enclosure)
Atomic Safety & Licensing
Board Panel (w/enclosure)
Docket & Service Section (w/enclosure)
Mr. James Wiggins (w/enclosure)
Mr. Timothy R. S. Campbell (w/enclosure)

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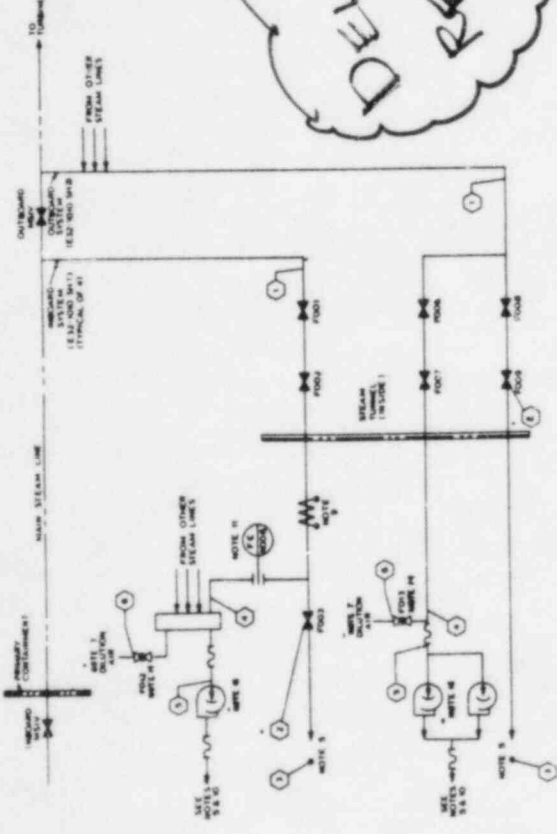
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DELETE AND REPLACE WITH ATTACHED.



RECOMMENDED PARAMETER VALUES (SEE NOTE 1.1)

POSITION	1	2	3	4	5	6
DESIGN PRESSURE (PSIG)	1500	1500	1500	1500	1500	1500
DESIGN TEMPERATURE (°F)	575	575	575	575	575	575
DESIGN LINE SIZE (IN)	12	12	12	12	12	12

MODE 1 - NORMAL REACTOR POWER OPERATION

POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)	350					
TEMPERATURE (°F)	575					
PRESSURE (SEE NOTE 3)	450					

MODE 2 - STEAM LINE BEING LOADED FOR

POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)	NOTE 4	NOTE 4	NOTE 4	NOTE 4	NOTE 4	NOTE 4
TEMPERATURE (°F)	NOTE 5	NOTE 5	NOTE 5	NOTE 5	NOTE 5	NOTE 5
PRESSURE (SEE NOTE 3)	NOTE 6	NOTE 6	NOTE 6	NOTE 6	NOTE 6	NOTE 6

MODE 3 - LONG TERM BACKUP (2 MINUTES TO 1 DAY AFTER SYSTEM INITIATION)

POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)	NOTE 7	NOTE 7	NOTE 7	NOTE 7	NOTE 7	NOTE 7
TEMPERATURE (°F)	NOTE 8	NOTE 8	NOTE 8	NOTE 8	NOTE 8	NOTE 8
PRESSURE (SEE NOTE 3)	NOTE 9	NOTE 9	NOTE 9	NOTE 9	NOTE 9	NOTE 9

MODE 4 - LONG TERM BACKUP (1 DAY TO 90 DAYS AFTER SYSTEM INITIATION)

POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)	NOTE 10	NOTE 10	NOTE 10	NOTE 10	NOTE 10	NOTE 10
TEMPERATURE (°F)	NOTE 11	NOTE 11	NOTE 11	NOTE 11	NOTE 11	NOTE 11
PRESSURE (SEE NOTE 3)	NOTE 12	NOTE 12	NOTE 12	NOTE 12	NOTE 12	NOTE 12

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LIMERICK GENERATING STATION
UNITS 1 AND 2
FINAL SAFETY ANALYSIS REPORT

MSV - LCS PROCESS DIAGRAM

MODE 1 NORMAL REACTOR POWER OPERATION

POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)						
TEMPERATURE °F	500					
PRESSURE (SEE NOTE 3)	1000					

MODE 2 STEAM LINE DEPRESSURIZATION

POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)	NOTE 4	NOTE 4		NOTE 12 S/V N/A	2:100 2:200	NOTE 7
TEMPERATURE °F	500	510	NOTE 8	500 N/A	510	5150
PRESSURE (SEE NOTE 3)	5:35	5:35	0.25 IN H ₂ O	NOTE 8 N/A	15 IN ± 2 H ₂ O	0.25 IN H ₂ O

MODE 3 LONG TERM BLEEDOFF (UP TO 1 DAY AFTER S-STEAM INITIATION)

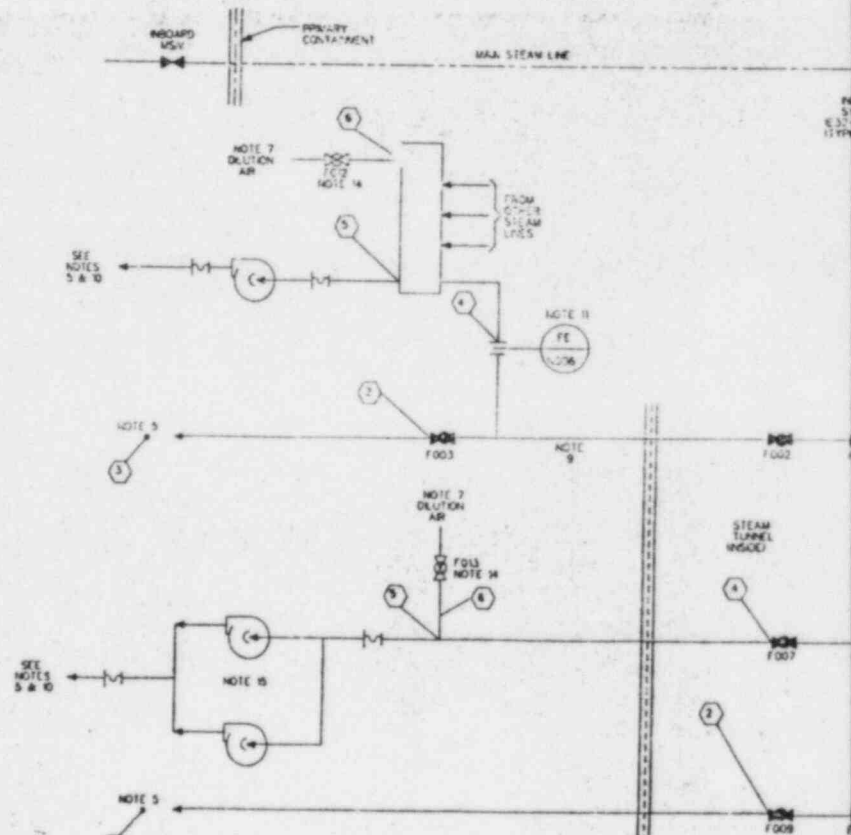
POSITION	1	2	3	4	5	6
FLOW (SEE NOTE 3)	3:500 SCFH NOTE 6A 3:40 NOTE 6B			3:100 SCFH NOTE 6A NOTE 6B	2:100 2:200	NOTE 7
TEMPERATURE °F	500			500	510	5150
PRESSURE (SEE NOTE 3)	0.25 IN H ₂ O			NOTE 8	15 IN ± 2 H ₂ O	0.25 IN H ₂ O

MODE 4 LONG TERM BLEEDOFF

POSITION	
FLOW (SEE NOTE 3)	
TEMPERATURE °F	
PRESSURE (SEE NOTE 3)	

RECOMMENDED PFRG DESIGN

POSITION	
DESIGN PRESSURE (PSIG)	
DESIGN TEMPERATURE °F	
EST. LINE SIZE (IN)	



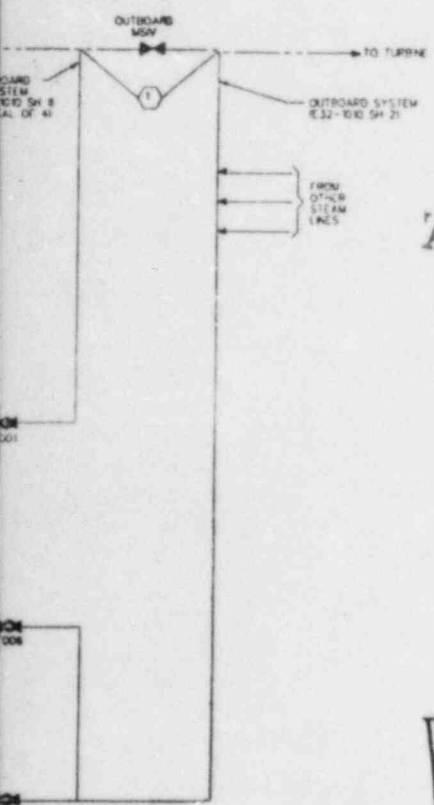
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OFF 11 DAY TO 130 DAYS AFTER SYSTEM STARTUP

1	2	3	4	5	6
≤ 100 SCFH H ₂ O NOTE 6A	≤ 40	≤ 100 SCFH H ₂ O NOTE 6A	≤ 40	100	> 200
≤ 20		≤ 20		≤ 60	≤ 100
> 0.25 M H ₂ O		NOTE 8	0.5 M H ₂ O	1.0 M H ₂ O	0.25 M H ₂ O

PARAMETERS (SEE NOTE 8)

1	2	3	4	5	6
150	300		300	50	100
575	575		575	96	50
1-1/2	1-1/2		1-1/2	3	3
2	8		2	4	4



TI APERTURE CARD

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- NOTES:
- SYSTEM PIPING LINE SIZES ARE FOR INFORMATION ONLY. ACTUAL LINE SIZES, AS DETERMINED BY OTHERS, SHALL MEET THE PROCESS HYDRAULIC REQUIREMENTS.
 - INDICATES INBOARD SYSTEM (IN) AND OUTBOARD SYSTEM (O) VALUES FOR THE MODES SPECIFIED. WHERE DIMENSION IS NOT SHOWN, VALUES ARE APPLICABLE FOR BOTH INBOARD AND OUTBOARD SYSTEMS.
 - INDICATES NOT APPLICABLE TO THE SPECIFIED MODE OR POSITION.
 - ALL PRESSURE AND FLOW UNITS ARE IN PSIG AND SCFH RESPECTIVELY UNLESS OTHERWISE SPECIFIED. INCHES WATER PRESSURE UNITS SHALL BE REFERRED TO VACUUM REQUIREMENTS.
 - THE SYSTEM PIPING FROM THE MAIN STEAM LINE CONNECTION TO THE DEPRESSURIZATION LINE DISCHARGE POINT SHALL BE DESIGNED TO SATISFY THE FOLLOWING REQUIREMENTS:
 - (A) THE INBOARD SYSTEM SHALL DEPRESSURIZE THE MAIN STEAM LINE FROM 35 PSIG TO 15 PSIG IN ONE MINUTE TO 1510 PSIG IN 7.0 MINUTES BASED ON STEAM FLOW. THE DEPRESSURIZATION TIME TO 1510 PSIG SHALL BE ESTABLISHED DURING THE SYSTEM PRE-OP TEST. THE RESULT, BASED ON AIR FLOW, SHALL BE APPROXIMATELY 3 MINUTES.
 - (B) THE OUTBOARD SYSTEM DEPRESSURIZATION OF THE MAIN STEAM LINE FROM 35 PSIG TO 1510 PSIG SHALL BE BASED ON THE TOTAL VOLUME FROM THE OUTBOARD WORKS TO THE TURBINE STOP VALVES OR OTHER BOUNDARIES CONSIDERED RELIABLE TO ESTABLISH THE REQUIRED PARTIAL VACUUM FOLLOWING A DESIGN BASIS ACCIDENT. THE VOLUME SHALL INCLUDE THE BRANCH LINES UP TO THE FIRST SHUTOFF VALVES.
 - (C) PIPE EQUIVALENT LENGTH SHALL BE ≤ 100 FT.
 - BUILDING VOLUME SERVED BY STANDBY GAS TREATMENT.
 - (A) FLOW IS TYPICAL FOR EACH INBOARD SUBSYSTEM LINE. THE LINE S.P. FROM MAIN STEAM LINE CONNECTION TO BLOWER SUCTION EXCLUDE FLOW ELEMENT. SEE NOTE 18 SHALL BE LESS THAN 10 INCH WATER.
 - (B) THE OUTBOARD SYSTEM LINE S.P. FROM MAIN STEAM LINE TO BLOWER SUCTION WITH THE SPECIFIED FLOW SHALL BE ≤ 10 INCHES WATER.
 - THE DILUTION AIR FLOW VALVE SHALL BE THROTTLED TO SATISFY THE REQUIRED PARTIAL VACUUM IN MODE 2 POSITION (S). CONDITIONS, THE THROTTLED VALVE SHALL BE LOCKED AS THE PARAMETERS ARE ESTABLISHED. THE REQUIREMENTS SHALL BE ESTABLISHED WITH THE SYSTEM PROCESS VALVES IN THE CLOSED POSITION. EXCEPTION: THE INBOARD SYSTEM VALVES FLOW EQUALITY OF FLOW SHALL BE IN THE OPENED POSITION. THE DILUTION AIR TO LEAKAGE FLOW RATIO MUST BE 2:50.
 - DATA BY OTHERS SHALL BE FILLED IN BASED ON ACTUAL PIPING ARRANGEMENT OR EQUIVALENT DATA SUBMITTED TO GE-BWSD FOR REVIEW.
 - THE PIPING WHERE HEATER ASSEMBLY IS INSTALLED SHALL WITHSTAND 800°F. THE HEATER SHALL BE CAPABLE TO EVAPORATE FLOOD RETURN OR CONDENSATE. THE HEATER OPERATING TEMPERATURE SHALL STABILIZE AT 800°F MAXIMUM.
 - BLOWER DISCHARGE RESISTANCE SHALL BE LIMITED TO 50 INCHES WATER.
 - FE-1008 DESIGN S.P. SHALL BE 450 IN. WATER AT 100 SCFH FLOW. THE FLOW ELEMENT SHALL AS LINE AN EXCESS FLOW CHECK VALVE AT FLOWS HIGHER THAN THE SPECIFIED MAXIMUM FLOW. THE EXCESS FLOW FEATURE SHALL BE DESIGNED SO THAT WHEN SEATED FLOW PASSING CAPACITY IS 100 SCFH OF STEAM AT 35 PSIG INLET PRESSURE AND 0 PSIG OUTLET PRESSURE. HIGH FLOW TRIP SETPOINT SHALL BE ADJUSTABLE BETWEEN 75 SCFH AND 100 SCFH.
 - THE VALUE INCLUDES THE STEAM FLOW FROM THE OTHER LINES ASSUMING EACH LINE IS IN THE LONG TERM DISCOVERY PHASE AND LEAKAGE IS THE FLOW INDICATED IN MODE 3 POSITION (D).
 - THE INBOARD MSIV-LCS SHALL PROCESS LEAKAGE THROUGH THE INBOARD MSIV IN CASE OF FAILURE OF THE INBOARD MSIV-LCS. THE OUTBOARD MSIV-LCS SHALL PROCESS THE LEAKAGE THROUGH THE OUTBOARD MSIV.
 - THE DIFFERENTIAL PRESSURE SWITCH SETPOINT INB5A & INB5B SEE E32-1010 SHALL BE SET AT 5 AND 15 INCHES H₂O RESPECTIVELY.
 - FLUEBLE PIPE SECTION CAN BE DISREGARDED IF THE PIPE BRACKET LOADS ARE WITHIN 600 LBS FORCE AND 250 FT LBS MOMENT ON BOTH INLET AND OUTLET FLANGES OF THE BLOWERS. SEE THE EQUIVALENT DIMENSIONAL DATA REGARDING THE PROCESS PIPING INTERFACE.
 - PROCESS VALVES MOTOR OPERATED SHALL HAVE OPENING AND CLOSING TIMES NO GREATER THAN 30 SECONDS.

FSAR FIG. 6.7-2
MSIV-LCS PROCESS
DIAGRAM

8409140233-01

WPL NO E32-1020

<p>GENERAL ELECTRIC</p> <p>PROCESS DIAGRAM</p> <p>MSIV LEAKAGE CONTROL SYSTEM</p>	<p>762E953AA</p> <p>0</p>
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