



- NOTES:
1. ATMOSPHERIC PRESSURE OF 1.0 kg/cm² abs WAS USED IN CALCULATIONS.
 2. WATER FLOWS ARE GIVEN IN m³/hr, STEAM FLOWS IN kg/hr.
 3. THE UNDESIGNED FLOW ORifice PRESSURE DROP OF 3.2 kg/cm² abs BETWEEN A & B FLOWS LINE BETWEEN POINTS (3) AND (4).
 4. THE LOSS OF COOLER PRESSURE DROP OF 0.55 kg/cm² abs A-F LOSS BETWEEN POINTS (13) AND (14).
 5. THE CONTROLLING MODES FOR LINE SIZES AND AVAILABILITY ARE:
 SUCTION FROM CONDENSATE STORAGE MODE A & B
 SUCTION FROM SUPPRESSION POOL MODE 1 & 2
 PUMP DISCHARGE MODE C & D
 STEAM SUPPLY MODE A & B
 TURBINE EXHAUST MODE A & C
 TEST LINE MODE E
 COOLING SYSTEM MODE A
 6. SYSTEM OPERATION IS POSSIBLE WITH INTERMEDIATE PRESSURES IN THE REACTOR VESSEL, AND THE SUPPRESSION POOL. HOWEVER, THESE CONDITIONS DO NOT CONTROL PIPE OR VALVE SIZES OR SPECIFICATION, AND NO DATA IS SHOWN.
 7. PUMP MINIMUM FLOW REQUIREMENT MAY OCCUR DURING ANY OPERATING MODE. FLOW REQUIREMENT IS 20.4 m³/hr MINIMUM WITH TURBINE/PUMP AT MAXIMUM SPEED AT MODE A.
 8. DURING SYSTEM STANDBY EQUIPMENT IS NOT OPERATING. INTERMITTENT FLOW OCCURS THROUGH THE STEAM SUPPLY LINE DRAIN TRAP SYSTEM AT 70 kg/cm² abs AND 253 °C.
 9. THIS TABLE IS FOR REFERENCE ONLY. SEE NCR-PAD ORF DOC 41 FOR REQUIRED VALUES.
 10. FLOW VALUES SHOWN IN MODES C & D ARE BASED UPON SUCTION FROM DESIGN PERMITTING THE MINIMUM REQUIRED HEAD TO CONTINUE TO BE PROVIDED TO THE PUMP FROM THE SUPPRESSION POOL. SUCTION STRAINER IS 50 PERCENT PLUGGED.
 11. STEAM FLOWS FOR TEST MODE AT POSITION (1) (2) (3) (4) (5) AND (6) ARE BASED UPON A PUMP TON OF 700 m.
 12. DURING ROC SYSTEM OPERATION A FLOW OF 0.09 m³/hr OCCURS THROUGH THE TURBINE EXHAUST LINE DRAIN TRAP SYSTEM AT 1.0 kg/cm² abs AND 115 °C.
 13. SEE REF DOC 1 FOR PEAK PRESSURE.

- REFERENCE DOCUMENTS UNDER THE FOLLOWING IDENTITIES SHALL BE USED IN CONJUNCTION WITH THIS DRAWING:
- | | |
|---|----------|
| 1. NUCLEAR COOLER SYSTEM PFD | 101-1020 |
| 2. RESidual HEAT REMOVAL SYSTEM PFD | ETI-020 |
| 3. HIGH PRESSURE CORE FLOODER SYS PFD | E22-1020 |
| 4. ROC SYSTEM PAD | ESI-1010 |
| 5. PIPING AND INSTRUMENTATION DIAGRAM SYMBOLS | AI0-3030 |

FIG'S 5.4-9
6.3-2

SI
APERTURE
CARD

REVISION	DATE	BY	CHKD BY	DESCRIPTION
1	11/11/80	W. J. HAZARD	W. J. HAZARD	ISSUED FOR CONSTRUCTION
2	11/11/80	W. J. HAZARD	W. J. HAZARD	ISSUED FOR CONSTRUCTION
3	11/11/80	W. J. HAZARD	W. J. HAZARD	ISSUED FOR CONSTRUCTION

APPROVED	DATE	BY	CHKD BY
W. J. HAZARD	11/11/80	W. J. HAZARD	W. J. HAZARD
1. PLACE ORIGINALS IN PROJECT FILE	2. PLACE ORIGINALS IN PROJECT FILE	3. PLACE ORIGINALS IN PROJECT FILE	

SAFETY RELATED	THIS ITEM IS OR CONTAINS A SAFETY RELATED ITEM	YES	NO
CLASSIFIED	THIS ITEM IS OR CONTAINS A SAFETY RELATED ITEM	YES	NO
CLASSIFIED	THIS ITEM IS OR CONTAINS A SAFETY RELATED ITEM	YES	NO

DOC TYPE: PFD	REACTOR CORE ISOLATION COOLING SYSTEM
DATE: 11/11/80	10.3E1798
REV: 3	1
REV: 2	2
REV: 1	3

AP-4043071

PDR RIDS

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