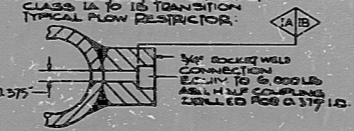


- NOTES:**
1. VALVE FAILS WITH FLOW TO VOLUME CONTROL TANK.
 2. OPENING LOADED CHECK VALVE.
 3. LOCATE BOTTOM OF STAINPIPE 26 FEET ABOVE CONNECTION TO RC PUMP NO. 3 SEAL.
 4. RUN PIPING HORIZONTAL OR UPWARD TO LOOP RISING 6 INCHES ABOVE REACTOR COOLANT PUMP NO. 2 SEAL LEAFOFF CONNECTION. AFTER LOOP RUN PIPING HORIZONTAL OR DOWNWARD THROUGH RUN TO REACTOR COOLANT DRAIN TANK (RCOT).
 5. THE LABYRINTH SEAL.
 6. MAKE UP WATER LINE FROM PRESSURIZER RELIEF TANK.
 7. VALVES IN PUMP CIRCUIT NUMBERED IDENTICALLY TO PUMP. I. SUFFIX LETTER IDENTIFIES PUMP TO WHICH VALVE BELONGS. SUFFIX A, ICV001A, PUMP 1. SUFFIX B, PUMP 2. SUFFIX C, PUMP 3. SUFFIX D, PUMP 4.
 8. OTHER COUPLER FURNISHED WITH RC PUMP.

9. PRESURIZER LOW LEVEL SIGNAL CLOSURE.
 10. DELAY TIME RCS TO HEED MUST BE 60 SEC MINIMUM.
 11. FLOW RESTRICTION FOR SAFETY CLASS 1A TO 1B TRANSITION THROUGH FLOW RESTRICTOR.
- 
- DEPENDING ON THE SIZE OF THE PROCESS LINE, NOTE 49, 49 OR 50 ON DWG. M-535 MAY BE SUBSTITUTED FOR THE ABOVE DETAIL.
12. FOR CONTINUATION OF INSTRUMENT LINE (LATER).
 13. LOCATE IN HORIZONTAL PIPE TEN DIAMETERS OF T STRAIGHT PIPE REQUIRED UPSTREAM AND TWO DIAMETERS DOWNSTREAM.

14. FLOW SET POINT ADJUSTED FROM PRESSURIZER LEVEL CONTROL.
15. TEMPORARY STRAINER IS PLACED IN THE SPOOL PIECE DURING INITIAL FLUSHING OPERATIONS. MUST BE REMOVED BEFORE PLANT START-UP.
16. REMOVE & REPLACE WITH BLANK FLANGES EXCEPT FOR RESIN SPLICING OPERATION.
17. PROVIDE MINIMUM OF 2 FT. OF STRAIGHT RUN AFTER MINIMUM FLOW ORIFICE. ORIFICE SUPPLIED BY PUMP MANUFACTURER.
18. LOCATE AS CLOSE TO CONTAINMENT WALL AS POSSIBLE.
19. ALL VALVES ALIGNED FOR BORON REMEDIATION.
20. CHILLED SURGE TANK MUST BE THE HIGH POINT IN THE CHILLER CIRCUIT.

21. FAILS TO DEMINERALIZER BYPASS POSITION.
22. DRAIN HEADER CONNECTION TO BE PROVIDED NEARBY FOR CONNECTING HOSE FOR DRAINING BY GRAVITY.
23. VALVE 0308A SHALL BE INTERLOCKED WITH VALVE 0324A AND VALVE 0308B SHALL BE INTERLOCKED WITH VALVE 0324B SO THAT IT WILL BE IMPOSSIBLE TO LETDOWN THROUGH ONE EXCHANGER WHILE CHARGING THROUGH THE OTHER.
24. CONNECT BYPASS RETURN LINE A MINIMUM OF 6 FT FROM PUMP SUCTION.
25. TYPICAL FOR ALL DEMINERALIZERS INCLUDING BLOWDOWN. THIS CONNECTION MUST PHYSICALLY BE AT THE TOP OF A HORIZONTAL RUN.
26. DENOTES NORMALLY OPERATING HIGH ENERGY LINES (AUX. BLDG.).
27. VALVE TO BE LOCKED CLOSED DURING REFUELING OPERATIONS.

28. PLINGER POT DRAIN.
29. OVERFLOW FROM COOLANT HEAD TANK INTEGRAL TO PUMP.
30. LOCATE CONNECTION AS CLOSE AS POSSIBLE TO THE VOLUME CONTROL TANK.
31. SOLDER REQUIRED SUPPLIED INTEGRAL WITH PRESSURE GAUGE.
32. Δ DENOTES LINE SHALL BE BUTT-WELDED.
33. BUTT-WELD TEE BRANCH LINE SHALL BE SOCKET WELD AFTER THE TEE.

NUCLEAR SAFETY RELATED
 ITEMS ARE SHOWN ON THIS DRAWING
 FOR SAFETY CLASSIFICATION SYSTEM
 CLASSIFICATION, BOUNDARY DEFINITION
 ON (HW M-34 SH-1)

NO.	DATE	BY	CHKD.	APP'D.	DESCRIPTION
1	11-22-63	J. G. Jones	J. G. Jones	J. G. Jones	ISSUED FOR FAB. & CONSTR. PER SPEC. Y-2739 FOR INFO Y-2702
2	1-22-64	J. G. Jones	J. G. Jones	J. G. Jones	ISSUED FOR FAB. & CONSTR. PER SPEC. Y-2739 FOR INFO Y-2702
3	3-11-64	J. G. Jones	J. G. Jones	J. G. Jones	ISSUED FOR FAB. & CONSTR. PER SPEC. Y-2739 FOR INFO Y-2702
4	1-22-64	J. G. Jones	J. G. Jones	J. G. Jones	ISSUED FOR FAB. & CONSTR. PER SPEC. Y-2739 FOR INFO Y-2702

DRAWING RELEASE RECORD					DRAWING RELEASE RECORD				
REV.	DATE	BY	CHKD.	APP'D.	REV.	DATE	BY	CHKD.	APP'D.
X	11-22-63	J. G. Jones	J. G. Jones	J. G. Jones	L	10-28-62	J. G. Jones	J. G. Jones	J. G. Jones
X	1-22-64	J. G. Jones	J. G. Jones	J. G. Jones	X				
X	3-11-64	J. G. Jones	J. G. Jones	J. G. Jones					
X	1-22-64	J. G. Jones	J. G. Jones	J. G. Jones					

DIAGRAM OF CHEMICAL & VOLUME CONTROL & BORON THERMAL REGEN. MARBLE HILL NUCLEAR GENERATING STA. UNIT 1 PUBLIC SERVICE INDIANA PLAINFIELD, INDIANA

BARSTOW & LINDVY ENGINEERS

DRAWING NO. **M-64**

SHEET 1 OF 1

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RIDS

