

MODES

MODE A - FULL FLOW FOR EXCESS AMOUNT OF LEAKAGE AT CHECK VALVE SEATS 2E11-F031A OR C (REF. 1, SH. 1 & 2).

MODE B - FULL FLOW FOR EXCESS AMOUNT OF LEAKAGE AT CHECK VALVE SEATS 2E21-F003A (REF. 2).

MODE C - NORMAL OPERATION SYSTEM PRESSURIZED. MIN. FLOW RECIRCULATION.

GENERAL NOTES

- ALL EQUIPMENT AND INSTRUMENT NUMBERS ARE TO BE PRECEDED BY MPL-2E21 UNLESS OTHERWISE NOTED. EX. 2E21-C002A.
- FOR WEIGHT AND MATERIAL OF PIPE, VALVES AND FITTINGS, SEE REF. 6.
- ALL CHECK AND GLOBE STOP CHECK VALVES MUST BE LOCATED CLOSE TO CROSS CONNECT HEADER.
- JOCKEY PUMP DRAINS AND VENTS TO DRW.
- PUMP C002A AND C002B ARE OPERATING AND PUMPS C003A AND C003B ARE ON STANDBY.
- PIPING HIGH POINT VENTS AND LOW POINT DRAINS ARE TO BE ADDED AT ALL SUCH POINTS NOT SERVED BY EQUIPMENT VENT AND DRAINS.
- JOCKEY PUMPS OPERATE ON EMERGENCY AC POWER.
- PS N011 STARTS THE JOCKEY PUMP
- 2E21-PI-R005A, B AND R006A, B ARE ASHCROFT TYPE 1379A GAUGES; PURCHASE ORDER S-8937.

PROCESS FLOW NOTES

- FOR PUMP NPSH AVAIL CALCULATIONS: MAX. TORUS WATER TEMP. = 200°F TORUS PRESSURE = 14.7 PSIA.
- MIN. NPSH_{AVAIL} CALCULATED ≈ 18 FEET.
- DESIGN OF THE PUMPS BASED ON NPSH_{AVAIL} = 4 FT. WHEN THE CORE SPRAY SYSTEM IS AT TEST MODE, THEN SUCTION TO JOCKEY PUMPS WILL BE THROUGH
- THE JOCKEY PUMPS ARE TO PROVIDE A MINIMUM OF 10 PSIG PRESSURE IN THE MAIN PUMP DISCH. LEGS IN ADDITION TO HEAD PRESSURE FROM WATER COLUMN.
- THE RESTRICTING ORIFICES ARE DESIGNED TO DROP THE DISCH. HEAD TO A LOW TORUS PRESSURE. (~ 15.7 P.S.I.A.)
- CALCULATIONS SHOWN ARE FOR SIDE "A", SIDE "A" AND SIDE "B" ARE IDENTICAL.
- THROTTLE DISCHARGE STOP CHECK VALVES TO MAINTAIN 0 PSIG AT PUMP SUCTION AT RUNOUT.

REFERENCES

REFERENCE	MPL. NO.	S.S.I. NO.
1. R.H.R. SYS. P&ID	2E11-1010 SH. 1	H-26014
	SH. 2	H-26015
2. CORE SPRAY SYS. P&ID	2E21-1010	H-26018
3. R.H.R. SYS. P.F.D.	2E11-1020	S-25140
		S-25141
4. CORE SPRAY SYS. P.F.D.	2E21-1020	S-25178
5. SAMPLING SYS. P&ID	2P33-1010	H-26038
6. FURN., TAB., DEL., & ERECT. PIPING & SETTING OF MECH. EQUIPMENT		SS-21091-1
7. PIPING & INSTRUMENT SYMBOLS.	A42-1010	S-15051
8. REACTOR BUILDING-PLANT SERVICE WATER P&ID	2P41-1010 SH. 1	H-26050
	SH. 2	H-26051

LEGEND

- EXISTING PIPING FOR 2E11-1010 AND/OR 2E21-1010.
- PIPING FOR JOCKEY PUMP SYSTEM.

BOUNDARY DIAGRAM NO.: 2E11-B01-04
 FUNCTION(S) NO.: 2E11-01, 2E21-01, 2E21-05
 PREPARED BY: WILLIE JENNINGS
 DATE: 8/20/98
 REVIEWED BY: WILLIAM P EVANS
 DATE: 10/5/98

LICENSE RENEWAL DOCUMENT

MPL NO. 2E21-1050 ACAD14 HL26019

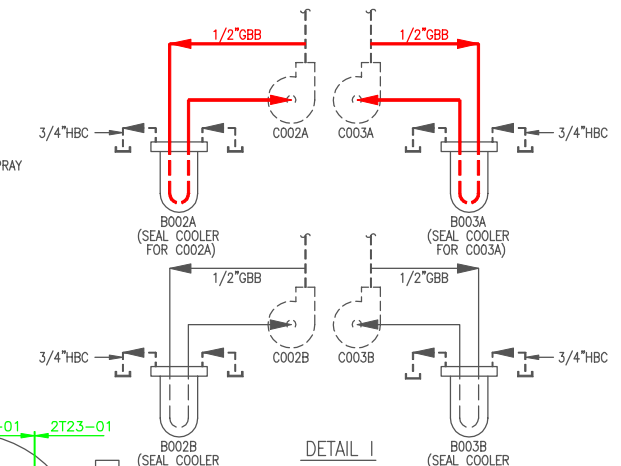
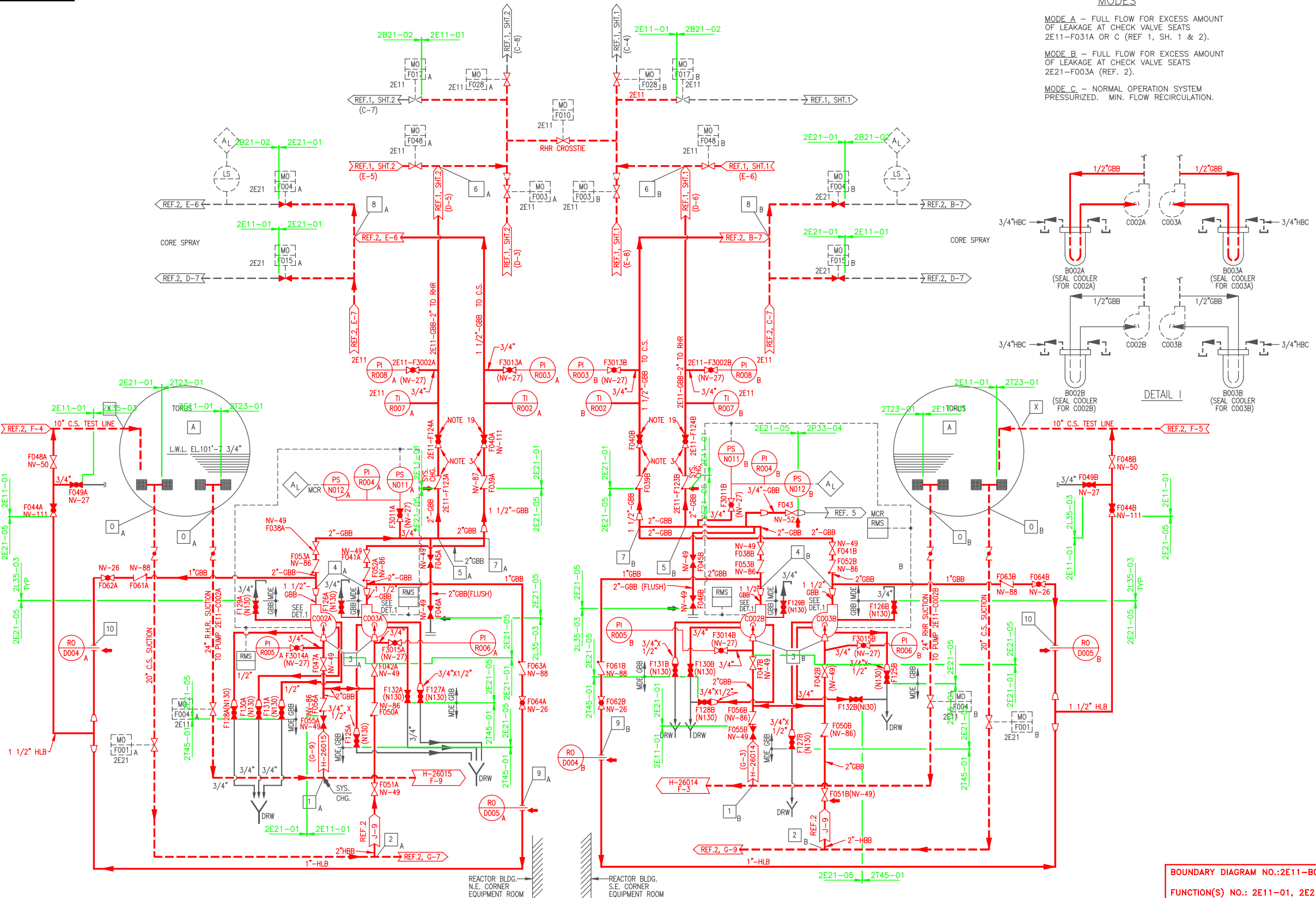


LICENSE RENEWAL SCREENING FOR INFORMATION ONLY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 JOCKEY PUMP SYSTEM P & ID AND
 PROCESS FLOW DIAGRAM FOR THE
 R.H.R. AND CORE SPRAY SYSTEMS

Revision: A Date: 11-08-99
 APPROVED, ISSUED PER LICENSE RENEWAL BOUNDARY PACKAGES. DRAWING CREATED FROM H-26019, REV.16; BY TRM.

BY	CHK'D	APPR'D	LOCATION	DOCUMENT NUMBER	REVISION
TRM	RLM	ASK		10-502	HL-26019
					A



MODE A - FULL FLOW TO R.H.R. PUMPS DISCHARGE LEG SIDE "A"

POSITION	A	0A	1A	0A	2A	3A	4A	5A	6A	7A	9A	10A	X
FLOW-GPM	-	40	40	0	40	40	40	30	30	0	10	0	10
PRESSURE-PSIA	14.7												
TEMP.-°F (MAX)	200°												
MAX. PRESSURE DROP- FEET													

REQ'D TDH=135 FT.

MODE B - FULL FLOW TO C.S. PUMPS DISCHARGE LEG SIDE "A"

POSITION	A	0A	1A	0A	2A	3A	4A	5A	7A	8A	9A	10A	X
FLOW-GPM	-	40	40	0	40	40	40	30	30	30	10	0	10
PRESSURE-PSIA	14.7												
TEMP.-°F (MAX)	200°												
MAX. PRESSURE DROP- FEET													

REQ'D TDH=120 FT.

MODE C - RECIRC. TO TORUS (NO FLOW TO PUMP DISCH. LEGS)

POSITION	A	0A	1A	0A	2A	3A	4A	5A	7A	9A	10A	X
FLOW-GPM	-	10	10	0	10	10	10	10	0	0	10	10
PRESSURE-PSIA	14.7											15.7
TEMP.-°F (MAX)	200°											
MAX. PRESSURE DROP- FEET												

TDH=200 FT.