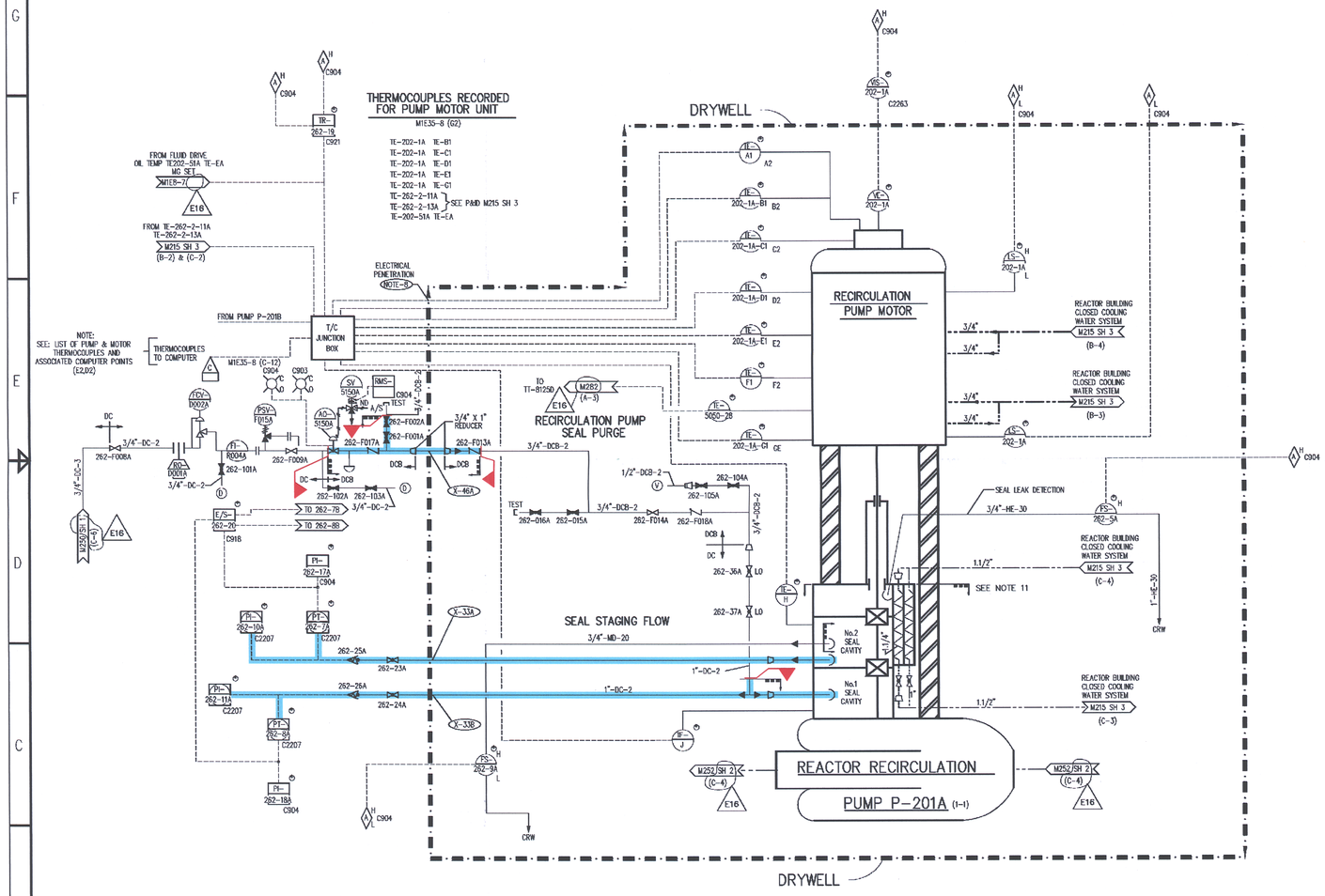

NOTES:

1. PIPING HIGH POINT VENTS AND LOW POINT DRAINS ARE TO BE ADDED BY BECHTEL AT ALL SUCH HIGH POINTS OR LOW POINTS NOT SERVED BY EQUIPMENT VENTS AND DRAINS.
2. CHEMICAL CLEANING CONNECTIONS,VALVES ETC. IF REQUIRED, ARE TO BE PROVIDED BY BECHTEL AS NECESSARY.
3. WHERE THERMOCOUPLES ARE DESIGNATED TE-A1,A2 ETC.,A2 IS A SPARE.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE BECO INSTRUMENT LIST M260-1.
5. ALL PIPING AND VALVING IS PROVIDED BY BECHTEL OR BECO UNLESS DESIGNATED BY ⊕(G.E.-APED SUPPLIED)
6. INSTRUMENTS,INSTRUMENT PIPING AND INSTRUMENT VALVING BEYOND THE ROOT VALVES SHALL BE INSTALLED IN ACCORDANCE WITH 22A1427AB, DESIGN SPECIFICATION,PROCESS INSTRUMENT PIPING AND TUBING INSTALLATION.
7. THIS DRAWING INCORPORATES REVISIONS 1,2,3, & 4 TO G.E. DRAWING NO. 117C2235. THE UNNUMBERED INSTRUMENTS ARE FURNISHED WITH THE RECIRCULATION PUMP AND MOTOR.
8. THERMOCOUPLES A-J,L1 & L3 TO BE WIRED OUT THROUGH DRYWELL TO T/C JUNCTION BOX.
9. CLOSED COOLING WATER SYSTEM TO AND FROM RECIRCULATION PUMP AND MOTOR SHALL BE CAPABLE OF CONTINUOUS OPERATION INCLUDING PERIODS OF DRYWELL ISOLATION.
10. REFER TO PIPING SPECIFICATION M300 & M600 FOR PIPING MATERIALS,VALVE CLASSIFICATIONS AND INSTRUMENT PIPING STANDARDS.
11. REFER TO FMPS Q-LIST TO IDENTIFY THE Q AND NON-Q COMPONENTS OF THE PUMP MECHANICAL SEAL.

LIST OF PUMP & MOTOR THERMOCOUPLES & ASSOCIATED COMPUTER POINTS

	TE-A1,A2	– THRUST BEARING,UPPER FACE	REC 118
TE-202-1A	TE-B1,B2	– THRUST BEARING,LOWER FACE	
TE-202-1A	TE-C1,C2	– UPPER GUIDE BEARING	
TE-202-1A	TE-D1,D2	– MOTOR WINDING "A"	
TE-202-1A	TE-E1,E2	– MOTOR WINDING "B"	
	TE-F1,F2	– MOTOR WINDING "C"	REC 080
TE-202-1A	TE-G1,G2	– LOWER GUIDE BEARING	
	TE-H	– #2 SEAL CAVITY	REC 124
	TE-J	– #1 SEAL CAVITY	REC 122
	TE-262-2-11A	– MOTOR BEARING OIL COOLING WATER	
	TE-262-2-13A	– SEAL CAVITY COOLING WATER	
	TE-5050-28	– MOTOR AIR OUTLET	
	TE-G1A	– DRIVE MOTOR OUTBOARD BRG TEMP	REC 088
	TE-G2A	– DRIVE MOTOR INBOARD BRG TEMP	REC 092
	TE-J1A	– GENERATOR OUTBOARD BRG TEMP	REC 096
	TE-J2A	– GENERATOR INBOARD BRG TEMP	REC 100
	TE-1A	– FLUID DRIVE IMP OUTBOARD BRG TEMP	REC 104
	TE-1B	– FLUID DRIVE IMP INBOARD BRG TEMP	REC 105
	TE-1C	– FLUID DRIVE RUNNER INBOARD BRG TEMP	REC 108
	TE-1D	– FLUID DRIVE RUNNER OUTBOARD BRG TEMP	REC 106
	TE-H2	– GENERATOR WINDING TEMP "A" PHASE	REC 084

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

PRIMARY CONTAINMENT PENETRATIONS AMRM-20

TITLE OF REFERENCE DRAWINGS	DWG NUMBER
HVAC TEMP CONTROL DIAGS.FOR REACTOR BLDG.REACTOR BLDG.AUX BAY & BOILER ROOM	M282
CONTROL ROD DRIVE HYDRAULIC SYSTEM	M250 SH 2
COOLING WATER SYSTEM-REACTOR BUILDING	M215 SH 3
VARIABLE SPEED RECIRC.PUMP & MG SET ELEMENTARY DIAGRAM	M1E35-8
RECIRC FLOW CONTROL SYS.BLOCK DIAGRAM	M1E8-7 SH 1
NUCLEAR BOILER SYS.P & ID	M252

NO	DATE	REVISIONS	BY	ENG	CHK	APP
E16	6/8/93	REVISED PER DCN 03-15590	TEB	–	AEJ	WJB
E15	8/8/97	REVISED FOR PR 97.0490 PER DCN 02166	TEB	–	AEJ	DLJ
E14	6/9/97	REVISED FOR PR 97.0667 PER DCN 01509	TEB	–	AEJ	DLJ
E13	2/25/97	REVISED PER DCN 97-01168	CTS	–	AEJ	DLJ
E12	2/25/97	ELECTRONIC CONVERSION PER DCN 97-00230	TEB	–	AEJ	AJB
E11	5/26/92	REVISED PER PDC 92-53	CTS	RMB	SJM	ETA
E10	4/24/92	B. REVISED PER PDC 92-58 A. REVISED PER FRN 93-510-305	TEB CTS	NRE RMM	SJM SJM	NJR
E9	4/24/91	REVISED PER PR 93.9407.01	JLP	JRT	SJM	SD
E8	4/24/91	PER PHOENIX PROJECT CHANGE RECORD APPENDIX (B-39)	JLP AEJ	N/A	RMB PGH	SD LPO

SCALE NONE | DESIGNED BECHTEL | DRAWN J PERUZZI | E

BOSTON EDISON

PILGRIM STATION NO. 093
BOSTON EDISON COMPANY

TITLE
P & ID
RECIRCULATION PUMP A
INSTRUMENTATION

Q ☒ Non Q

DRAWING NO. M251 SH 1 REV E16

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	6-16-05	.	.	.	.	.

REVISIONS

LRA-M-251-SH-01-0

CAD FILE LRA-M-251-SH-01_E16.DGN
MASTER FILE M251SH1-CALS_E16.CAL

41100-1953 FSAR FIGURE 4.3-3 (REV 16) Q:\MECH\P&ID\M251SH1.DWG

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