PRIMARY CONTAINMENT

REACTOR PRESSURE VESSEL T-217

ACCUMULATOR (98A) T-221A

ACCUMULATOR (98D) T-221D

ACCUMULATOR (98B) T-221B

ACCUMULATOR (98C) T-221C

ACCUMULATOR T-220A (82A)

ACCUMULATOR T-220B (83B)

ACCUMULATOR T-220C (83C)

ACCUMULATOR T-220D (83D)

ACCUMULATOR T-220E (83E)

ACCUMULATOR T-220F (83F)

ACCUMULATOR T-220G (83G)

ACCUMULATOR T-220H (83H)

AUTO OPEN SIGNAL SEE NOTE 21

PRIMARY RELIEF VALVE

VALVE CONTROL SYS SEE NOTE 20

ISOLATION SIGNAL SEE NOTE 21

SCRAM SIGNAL TEST SEE NOTE 19

CONDENSING CHAMBERS

TO FEEDWATER CONTROL SYSTEM M208 SH 1

REACTOR BUILDING WALL

BACKUP SRV NITROGEN CYLINDERS

1/2" S.S. TUBING (BY VENDOR)

3/8" S.S. TUBING

ABANDONED IN PLACE

NOTES:

1. ALL RELIEF AND SAFETY VALVE THERMOCOUPLES ARE CONNECTED TO TEMPERATURE RECORDER TR-260-20 (SEE NOTE 28).
2. ALL REMOTE MANUAL SWITCHES, ALARMS, AND POSITION LIGHTS SHALL BE LOCATED IN THE CONTROL ROOM.
3. A SEPARATE LINE IS RUN INTO THE SUPPRESSION CHAMBER THROUGH THE VENT PIPING FOR EACH INDIVIDUAL RELIEF VALVE. EACH LINE IS SIZED BY BECHTEL TO PASS RELIEF VALVE CAPACITY WITHOUT EXCEEDING PRESSURE AND TEMPERATURE RATING OF RELIEF VALVE DISCHARGE FLANGE. APPLIES TO RV-203-3A, B, C AND D ONLY.
4. PROVIDE HOLD DOWN AGAINST BLOWING REACTION.
5. DESIGN PRESSURE AND TEMPERATURE PER ASME CODE; 1475 PSIG, 575 DEGREES F.
6. DESIGN PRESSURE AND TEMPERATURE TO BE ESTABLISHED BY BECHTEL BASED ON FEED PUMP SHUTOFF PRESSURE AND SYSTEM ARRANGEMENT.
7. ALL MOTOR OPERATED AND SOLENOID VALVES ARE AC UNLESS OTHERWISE NOTED.
8. DECONTAMINATION CONNECTION TO BE READILY ACCESSIBLE FOR CONVENIENT AND RAPID CONNECTION OF TEMPORARY PIPING.
9. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT LIST M260-1.
10. DELETED
11. REFER TO BECHTEL PIPING SPECIFICATION M30D OR M60D FOR PIPING MATERIALS, VALVE CLASSIFICATIONS AND INSTRUMENT PIPING STANDARDS.
12. ALL EQUIPMENT AND INSTRUMENTS ARE SUPPLIED BY GE UNLESS DESIGNATED BY *(BECHTEL SUPPLIED). ALL PIPING AND VALVING IS SUPPLIED BY BECHTEL UNLESS DESIGNATED BY *(GE SUPPLIED). (THIS NOTE SUPERSEDES NOTE 11 ON DWG M200 SH 2 FOR THIS DWG ONLY.)
13. THIS DRAWING INCORPORATES REVISIONS 1-7 OF GE DRAWING 729E861.
14. NUMBERS IN PARENTHESES ARE GE SUPPLIED TC'S WITH GE TAG NUMBERS WHICH APPEAR ON ELECTRICAL DIAGRAMS. FIELD TO USE BECHTEL SUPPLIED DUPLEX THERMOCOUPLES IN PLACE AND MARK GE TC'S SPARE UNITS.
15. SV & AO-220-46 PURCHASED AS AO-200-46
    SV & AO-220-47 PURCHASED AS AO-200-47
    SV & AO-220-51 PURCHASED AS AO-200-51
    SV & AO-220-52 PURCHASED AS AO-200-52
16. LOCAL CONTROL SWITCHES "HS" ARE LOCATED ON FOLLOWING ALTERNATE SHUT DOWN PANELS:FOR SV-203-3A & 3D IN PANEL C156; SV-203-3B & 3C IN PANEL C157. THESE SWITCHES SHALL BE IN REMOTE TO OPERATE THE VALVE FROM CONTROL ROOM.
17. FOR ADDITIONAL INPUTS TO RECORDER TR 263-104 SEE DRAWINGS M244 SHEET 2 AND M253 SH 1 & 2.
18. VALVE 2-HO-13B MAY NOT BE OPENED.
19. REFER TO REACTOR PROTECTION SYSTEM (SEE REFERENCE DRAWINGS).
20. REFER TO SCHEMATIC CONTROL DIAGRAM, ISOLATION VALVES (SEE REFERENCE DRAWINGS)
21. REFER TO FUNCTIONAL CONTROL DIAGRAM, NUCLEAR BOILER SYSTEM, (SEE REFERENCE DRAWINGS).
22. REFER TO RECIRCULATION FLOW CONTROL SYSTEM DIAGRAMS, SHEET 1 (SEE REFERENCE DRAWINGS).
23. REFER TO RECIRCULATION FLOW CONTROL SYSTEM DIAGRAMS, SHEET 2 (SEE REFERENCE DRAWINGS).
24. REFER TO RESIDUAL HEAT REMOVAL FUNCTIONAL CONTROL DIAGRAM (SEE REFERENCE DRAWINGS).
25. REFER TO NEUTRON MONITORING SYSTEM BLOCK DIAGRAM (SEE REFERENCE DRAWINGS).
26. GLAND LEAK-OFF LINES ARE GANGED DOWNSTREAM OF ISLOATION VALVES (1-HO-8A, B, C, & D). GLAND LEAK-OFFS FOR AO-203-2A, 2B & 2C HAVE BEEN CUT AND CAPPED. ISOLATION VALVES 1-HO-8A, B & C ARE SHOWN CONNECTED NEAR 1-HO-8D FOR CLARITY.
27. GLAND LEAK-OFF LINES FOR AO-203-1A, 1B, 1C AND 1D HAVE BEEN CUT AND CAPPED. ISOLATION VALVES ARE SHOWN (ZONE E-7) CANCED TOGETHER FOR CLARITY.
28. SEE TABLE A ON DRAWING M252 SHEET 2.

RADIATION MONITORING SYSTEM

REFER TO GE-APPROVED DRAWING 730E191(M1U-1-8)

AUTO ISOLATION ONLY WHEN BOTH ONE OF TYPE A SENSORS OPEN AND ONE OF TYPE B SENSORS OPEN ON HIGH TEMPERATURE

BOUNDARY TYPICAL OF TWO (SEE TABLE)

SEPARATION REQUIREMENT BETWEEN WX & YZ SENSORS

	AREA J	AREA K	CHANNEL
TS-W	TS-261-15A	TS-261-16A	A1
TS-X	TS-261-15B	TS-261-16B	B1
TS-Y	TS-261-15C	TS-261-16C	A2
TS-Z	TS-261-15D	TS-261-16D	B2
TS-T	TE-261-22A	TE-262-22B	–
TS-U	TS-260-19A	TS-260-19B	–

MAIN STEAM LINE LEAK DETECTION

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

- AUTOMATIC DEPRESSURIZATION SYSTEM AMRM-04
- INSTRUMENT AIR SYSTEM AMRM-16
- PRIMARY CONTAINMENT PENETRATIONS AMRM-20
- MAIN CONDENSER AND MSIV LEAKAGE PATHWAY AMRM-26
- REACTOR COOLANT SYSTEM PRESSURE BOUNDARY AMRM-33

NUCLEAR BOILER MISC SYS SH 1	M1A15-7	RESIDUAL HEAT REMOVAL FUNCTIONAL CONTROL DIAGRAM	M1H-78C
NUCLEAR BOILER MISC SYS SH 2	M1A16-5		
NUCLEAR BOILER MISC SYS SH 3	M1A69-1		
RECIRCULATION FLOW CONTROL SYS SH 1	M1E9-6	P & ID NUCLEAR BOILER VESSEL INST	M253 SH 1 & 2
RECIRCULATION FLOW CONTROL SYS SH 2	M1E7-5	P & ID REACTOR RECIRCULATION PUMPS	M251 SH 1 & 2
RECIRCULATION FLOW CONTROL SYS SH 3	M1E13-3	P & ID CONTROL ROD DRIVE HYDRAULIC SYS	M250 SH 1 & 2
PROCESS RAD MONITORING SYS, BLK DIAG	M1U101-7	P & ID STANDBY LIQUID CONTROL SYSTEM	M249
REACTOR PROTECTION SYS, BLOCK DIAG SH 1	M1P5-5	P & ID REACTOR WATER CLEANUP SYSTEM	M247
REACTOR PROTECTION SYS, BLOCK DIAG SH 2	M1P6-6	P & ID REACTOR CORE ISOLATION COOLING	M245
REACTOR PROTECTION SYS, BLOCK DIAG SH 3	M1P7-5	P & ID HIGH PRESSURE COOLANT INJECTION	M243
REACTOR LEVEL & FEEDWATER CONTROL BLOCK DIAGRAM	M1P2-7	P & ID CORE SPRAY SYSTEM	M242
		P & ID RESIDUAL HEAT REMOVAL SYSTEM	M241 SH 1 & 2
NEUTRON MONITORING SYS, BLOCK DIAGRAM	M1Q4-4	P & ID CONDENSATE & FEEDWATER SYSTEM	M208 SH 1 & 2
SCHEMATIC CONT DIAG (ISOLATION VALVES)	251B-3-1	P & ID MAIN STEAM SYSTEM	M203 SH 1,2 & 3
TITLE OF REFERENCE DRAWINGS	DWG NUMBER	TITLE OF REFERENCE DRAWINGS	DWG NUMBER

NO	BY	REVISIONS	BY	END	CHK	APP
E60	RJB	REVISED PER DCN 05-15592	TEB	–	AEJ	MJB
E59	TJB	REVISED FOR PR 00.0703 PER DCN 11178	CTS	–	TEB	DLJ
E58	S/A	B: REVISED FOR FRN 00-01-68 PER DCN 10723	CTS	–	AEJ	DLJ
		A: REVISED FOR FRN 00-01-48 PER DCN 10705	NJW	–	AEJ	DLJ
E57	S/A	B: REVISED FOR PDC 00-41 PER DCN 10817	CTS	–	AEJ	DLJ
		A: REVISED FOR FRN 00-01-74 PER DCN 10812	CTS	–	AEJ	DLJ
E56	S/A	REVISED PER DCN 00-07503	TEB	–	AJB	DLJ
E55	S/A	REVISED PER DCN 99-07341	CTS	–	AEJ	DLJ
E54	S/A					
E53	S/A	INCORPORATED DRN 05-08276	LCC	–	DLJ	MA
E52	S/A	REVISED FOR ER 03112677 PER DCN 17339	LCC	–	DLJ	DLJ

SCALE NONE | DESIGNED EP | DRAWN C T SURETTE | E

Entergy Nuclear Generation Company
PILGRIM STATION
PLYMOUTH, MA

TITLE
P & ID
NUCLEAR BOILER

Q	DRAWING NO.	REV
Non Q	M252 SH 1	63

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	11-15-05	REVISIONS				

CAD FILE LRA-M-252-SH-01-E63.DGN
WATER FILE M252SH1-CALS_E63.CAL

LRA-M-252-SH-01-0

41100-1954 FSAR FIGURE 4.3-2 (REV 16) AMM\MECH\M252SH1.DWG

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