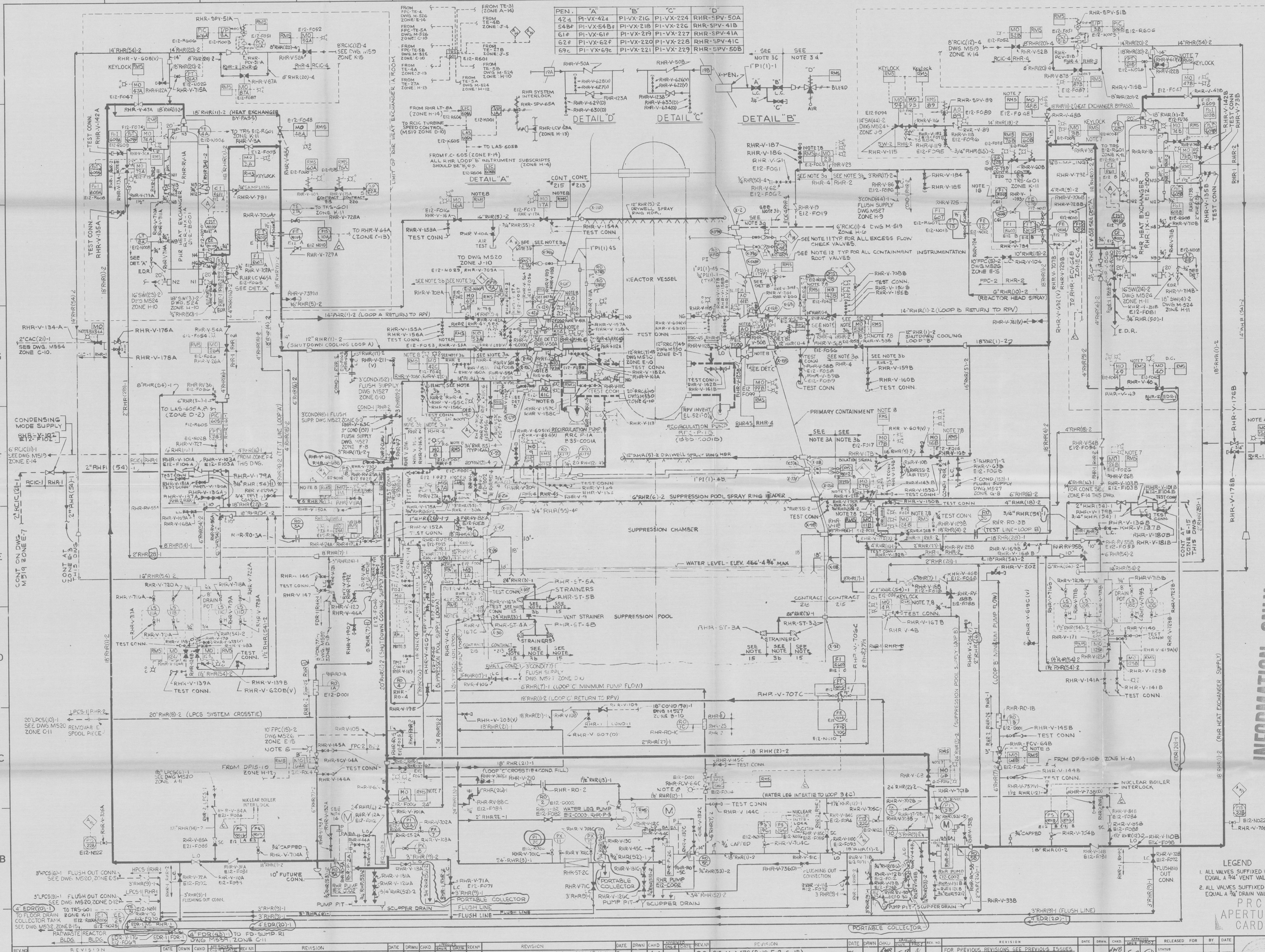

PEN.	"A"	"B"	"C"	"D"
42d	PI-VX-42d	PI-VX-216	PI-VX-224	RHR-SPV-50A
54Bf	PI-VX-54Bf	PI-VX-218	PI-VX-226	RHR-SPV-41B
61f	PI-VX-61f	PI-VX-219	PI-VX-227	RHR-SPV-41A
62f	PI-VX-62f	PI-VX-220	PI-VX-228	RHR-SPV-41C
69c	PI-VX-69c	PI-VX-221	PI-VX-229	RHR-SPV-50B

NOTE:

1. ALL PRESSURE & FLOW INSTRUMENT ROOT VALVES NOT LABELLED WILL BE 3/4" GLOBE VALVES, UNLESS SPECIFICALLY NOTED OTHERWISE.
2. ALL ITEMS MARKED * ARE FURNISHED WITH ASSOCIATED EQUIPMENT.
3. PIPING, VLVS. & ASSOC. COMPONENTS ON THIS DWG. SHALL BE CLASSIFIED AS FOLLOWS EXCEPT AS STATED IN NOTES 15 & 17 (BREAK POINTS ARE INDICATED ON FLOW DIAGRAM):
   a. PIPING & VLV. OUT THROUGH OUTERMOST REAC ISOL. VLVS. SEIS. CL. I, QUAL. CL. I CODE GRP. A
   b. PIPING & VLVS. BEYOND OUTERMOST REAC. ISOL. VLVS EXCEPT THOSE LINES DESIG. AS 3/4" RHR (52)-2. SEIS. CAT. I, QUAL. CL. I CODE GRP. B.
   c. INSTM. AIR LINES & LEAK-OFF PIPING INSIDE CONT. ISOL. VLV. SEIS CAT. I, QUAL. CL. I CODE GRP. B
   d. INSTR. AIR LINES OUTSIDE CONTAINMENT ISOL. VLV. φ SEIS. CL. I, QUAL. CL. II CODE GP. D.
   e. LEAK-OFF PIPING BEYOND LEAK-OFF ISOL. VLV. & THE LINES DESIGNATED AS 3/4" RHR (52)-2 SEIS. CAT. II ⊕, QUAL. CL. II CODE GRP. D
   f. PIPING SUBSYSTEMS EDR (20)-1 & FDR (43) SEIS. CAT. II ⊕, QUAL. CL. II CODE GP. C
   ⊕ SEE SECT. 15Q CONTR. 215
   φ EXCEPT AS NOTED ON M619 INSTR. CONN. DIAGRAMS.
4. DETAIL SHOWS VALVES STEM LEAK-OFF CONNECTION WITHOUT LEAK DETECTION.

VALVE "A"	"B"	MAIN VALVE	LEAK OFF VALVE SUFFIX	FLOW GLASS	TX
743(V)	742(V)	RHR-V-8	H	LD-FG-16	LD-TX-1
		RHR-V-42A	J	LD-FG-17A	LD-TX-2A
745(V)	744(V)	RHR-V-42B	K	LD-FG-17B	LD-TX-2B
735(D)	612(D)	RHR-V-42C	L	LD-FG-17C	LD-TX-2C
		RHR-V-53A	M	LD-FG-18A	LD-TX-3A
		RHR-V-53B	N	LD-FG-18B	LD-TX-3B

5. DETAIL SHOWS VALVES STEM LEAK-OFF CONNECTION WITH LEAK DETECTION.

THE FOLLOWING VALVES ARE PROVIDED WITH THIS ARRANGEMENT.

MAIN VALVE	LEAK-OFF VALVE SUFFIX	TE FG SUFFIX	ZONE
RHR-V-9	N	C1	F-10
RHR-V-41A	Q	C3	G-10
RHR-V-41B	R	C4	G-10
RHR-V-41C	S	C5	G-10
RHR-V-50A	T	C6	G-10
RHR-V-50B	U	C7	G-8

6. ALL PIPING SYSTEMS IDENTIFIED BY THE PREFIX "PI" SHALL BE SUPPLIED AND INSTALLED BY CONTRACT # 220
7. THIS EQUIPMENT IS NORMALLY CONTROLLED FROM THE MAIN CONTROL ROOM. IF THE MAIN CONTROL ROOM MUST BE VACATED THIS CONTROL POINT MAY BE ISOLATED AND CONTROL TRANSFERRED TO THE REMOTE SHUTDOWN PANEL C61-P001
8. THESE VALVES WILL BE INCLUDED IN THE "ISOLATION VALVE POSITION DISPLAY PANEL"
9. ALLOW ADEQUATE PIPING SURFACE AREA FOR COOLING OF PUMP RHR-P-3
10. ALL TEST CONNECTION PIPING WILL ASSUME "RATING" OF SOURCE PIPE AND BE IDENTIFIED AS 3/4" RHR (55)-
11. EXCESS FLOW CHECK VALVES SHALL BE TAGGED AS FOLLOWS: PI-EFCX-✱ (✱ = PENENETRATION Nº)
12. CONTAINMENT INSTRUMENTATION ROOT VALVES SHALL BE TAGGED AS FOLLOWS: PI-VX-✱ (✱ = PENETRATION Nº) EXCEPT WHERE NOTED ON FACE OF DRAWING
13. EQUIPMENT AND INSTRUMENTS ARE PREFIXED WITH RHR UNLESS OTHERWISE NOTED
14. SEE COMPUTER I/O LIST FOR MOTOR WINDING AND BEARING TEMPERATURE ELEMENTS AND POINT NUMBERS
15. PIPING, VALVES & ASSOCIATED COMPONENTS ON THIS DWG. SHALL BE CLASSIFIED AS FOLLOWS (BREAK POINTS ARE INDICATED ON THIS DIAGRAM)
    SEISMIC CATEGORY I
    QUALITY CLASS I
    CODE GROUP D ✱
    ✱ STRAINERS SHALL HAVE ALL FABRICATION & MATERIALS TO APPLICABLE REQUIREMENTS OF ASME III-2 EXCEPT CODE STAMP IS NOT REQUIRED AND PERFORATED PLATE MAY BE ASTM MATERIAL AND COMPLIANCE WITH NA-3700 IS NOT MANDATORY, FURNISHED & INSTALLED BY CONTR. 213A.
16. THESE INSTRUMENTS ARE LOCATED ON COLD SHUTDOWN PANEL
17. ALL PIPING DOWNSTREAM OF THE LAST ISOLATION VALVE AND OPEN TO THE ATMOSPHERE WITH THE SUBSYSTEM DESIGNATION "SYSTEM" (50) THRU (59) SHALL BE CLASSIFIED AS CODE GROUP D WITH QUALITY CLASS AND SEISMIC CATEGORY PROVIDED BY THE APPLICABLE NOTES ON THIS DRAWING.

VOID

FSAR FIG. NO. 3.2-6

LEGEND

1. ALL VALVES SUFFIXED WITH A (V) EQUAL A 3/4" VENT VALVE.
2. ALL VALVES SUFFIXED WITH A (D) EQUAL A 3/4" DRAIN VALVE.

PRC APERTURE CARD

BURNS AND ROE, INC.
ENGINEERS AND CONSTRUCTORS
ORADELL, N. J. HEMPSTEAD, N. Y. LOS ANGELES, CALIF.

FLOW DIAGRAM
RESIDUAL HEAT REMOVAL SYSTEM

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
HANFORD No. 2

REV. Nº	REVISION	DATE	DRWN	CHKD	APPROVED ENG'R	DATE
32	PER TASK 3040: PED'S W215-M-5296 (B-10-11, B-9, A-B-6-7) 215-M-B777 (E-5), W215-D-A594 AMENDED INCORPORATION (F-12) 215-M-B029 (A-B-6-7) 215-M-4123 (A-B-15, A-13-14, A-5, C-3, F-3, J-1-2) W220-1-0592 (B-11, B-10, B-6)	3/16/82	DRJ	LWB GHM	FJS	4/9/82

REV. Nº	REVISION	DATE	DRWN	CHKD	APPROVED ENG'R	PROJ
30 CONT	215-M-A478 (B-10, F-2, G-15)	10/22/81	REP	LWB		
31	PER TASK 3040: PED-W215-M-A314 (C-10), 213A-M-5025 (C-1-2) 215-M-A831 (B-5, C-8, C-9, C-10, D-5, D-7, D-10, D-11, D-12, E-3, E-4, E-5, E-6, E-6-7, E-7, E-11, E-12, E-12-13, E-13, E-14, E-F-13-14, F-12, F-13, F-14, F-15, G-14, H-3), W215-D-A594 (G-7-8, G-10, J-K-8-10, H-5, D-13-14, C-5, C-B-4-5, H-12-13, C-10-11, G-5, H-4, K-3-4, J-2, J-3-7-9, C-8-9)	12-9-81	MH	GHM		

REV. NO.	REVISION	DATE	DRWN.	CHKD.	APPROVED ENG'R	PROJ.
	FOR PREVIOUS REVISIONS SEE PREVIOUS ISSUES					
28	PER TASK 3040: PED 215-M-4961 (B-7, F-6, G-7, H-12, J-5), 215-M-4910 (D-4, D-14), 215-M-4607 (G-1-2, J-2), 215-M-4170 (F-11-12), 215-M-A162 (B-6, B-9, B12)	6-18-81	HTP	LWB GHM		
29	PER TASK 3040: PEDS 215-M-A349 (E-F-9-10), W215-M-4797 (D-E-11, D-6)	8-21-81	DRJ	LWB GHM		
30	PER TASK 3040: PED'S W215-M-4532 (B-12, B-5-6, B-8-9), 215-M-4114 (F-12), 215-M-A383 (G-11-12)					

RELEASED FOR	BY	DATE
STATUS		
PRELIMINARY INFO.		
BIDDING ONLY		
ADDENDUM NO.		
AMENDMENT NO.		
CONSTRUCTION		
APPLY TO SPEC. NO.		

4/16/82

ENGINEERING REVIEW				
DIVISION	MECH.	ELECT.	NUC.	INSTR.
ENG'R	—			
DATE		6/6/73	6/6/73	6/1/73

APPROVED FOR CONSTRUCTION 6/12/73 OR CHIEF NUCLEAR ENGINEER

CLIENT APPROVAL

SCALE: NONE
DRWN. A.B. | CHKD. P. Gabriel
SLIDE B.S.S. | DATE 5-25-73
REVIEWED BY CHIEF DRAFTSMAN 5/25/73

W. O. 2808
DWG. M521 REV 32

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