PRIMARY CONTAINMENT COOLING & PURGING FLOW DIAGRAM

NOTES:

1- FOR ALL FAN COIL UNITS (FC), THE FILTERS ARE USED ONLY DURING CONSTRUCTION PERIOD.

2- ISOLATION SIGNAL CODES.
A - REACTOR VESSEL LOW WATER LEVEL
F - HIGH DRYWELL PRESSURE
Z - HIGH RADIATION, REACTOR BUILDING VENTILATION SYSTEM

3 - FOR FLOW DIAGRAM LEGEND, SYMBOLS AND ABBREVIATIONS, SEE DRAWING M501.

4 - ALL INSTRUMENTS ON THIS DRAWING TO BE PREFIXED BY "CRA" UNLESS SPECIFICALLY NOTED OTHERWISE. IE (FI 2) IS IDENTIFIED AS CRA-FI-2

5 - ALL PRESSURE AND FLOW INSTRUMENT ROOT VALVES SHALL BE ¾" GLOBE VALVES UNLESS SPECIFICALLY NOTED OTHERWISE

6- PIPING AND VALVES AND ASSOCIATED COMPONENTS ON THIS PWG SHALL BE CLASSIFIED AS FOLLOWS (BREAK POINTS INDICATED ON FLOW DIAGRAM)
a. PIPING AND VALVES WITHIN PRIMARY CONTAINMENT AND UP TO THE OUTERMOST ISOLATION VALVE:
SEISMIC CATEGORY --- I
QUALITY CLASS --- I
CODE GROUP ---------- B
b. PIPING AND VALVES BEYOND OUTERMOST INSOLATION VALVE (EXCEPT INSTRUMENT LINES AS NOTED)
SEISMIC CATEGORY --- II
QUALITY CLASS --- II
CODE GROUP ---------- D
c. INSTRUMENT LINES AS NOTED
SEISMIC CATEGORY --- I
QUALITY CLASS --- I
CODE GROUP ---------- C
Ø EXCEPT AS NOTED ON M619 INSTRUMENT CONNECTION DIAGRAMS

7- ALL DUCTWORK WITHIN THE PRIMARY CONTAINMENT SHALL BE CLASSIFIED AS FOLLOWS:
SEISMIC CATEGORY ---- I
QUALITY CLASS ------ I

8. DELETED.

9- ALL PIPING SYSTEMS IDENTIFIED BY THE PREFIX "PI" SHALL BE SUPPLIED AND INSTALLED BY CONTRACT 220

10- ALL VALVE TEST CONNECTIONS FOR LINES PENETRATING PRIMARY CONTAINMENT SHALL CONSIST OF ¾" GLOBE VALVES, WHICH SHALL BE TAGGED AS FOLLOWS:
CSP-V-800-(NUMBER)
CEP-V-800-(NUMBER)

11. RADIATION MONITORING AND SAMPLE HANDLING SYSTEMS (CONTRACT 220). VALVES SHALL BE TAGGED AS FOLLOWS:
a. BLOCK VALVE (*)-V-X (PENETRATION NO)
b. EXCESS FLOW CHECK VALVE, (*)-EFC-X (PENETRATION NO)
c. CHECK VALVE (*)-CV-X (PENETRATION NO.)
* USE PI FOR INSTRUMENT LINES AND PSR FOR SAMPLING LINES.

12. ALL TAGS FOR INSTRUMENT ROOT VALVES WILL BE FURNISHED AND INSTALLED BY OWNER.

13. ALL AIR QUANTITIES INDICATED ARE ACTUAL CFM.

14. SEE MG19 SHEET 161 FOR THE CONSTRUCTION DETAILS OF THE QUALITY CLASS I INSTRUMENT AIR SYSTEM.

15 ** FURNISHED BY CONTRACT 216 INSTALLED BY OTHERS (CONTRACT 216)

16. ALL INSTRUMENT LINES ARE DESIGNATED BY CODE AND LINE NUMBER
a. EXAMPLE: LINES ORIGINATING OUTSIDE CONTAINMENT.
1/2"PI(1)-1-ST - (H22-P021)-A6
CODE DESIGNATION — LINE NUMBER
b. EXAMPLE: LINES ORIGINATING INSIDE CONTAINMENT
(1/2"PI(1)-45 - X106)
CODE DESIGNATION — LINE NUMBER
C. EXAMPLE: CONTINUATION OF THE ABOVE LINE OUTSIDE CONTAINMENT IS DESIGNATED AS FOLLOWS, WITH LINE NUMBERS NOT SHOWN:
1/2"PI(1)-ST-X106 - (H22-P021)-
CODE DESIGNATION — LINE NUMBER

UNITS		NUMBER OF UNITS NORMALLY OPERATING	STANDBY
1	LOWER LEVEL FAN COIL UNITS - CRA-FC-1A, 1B, 1C	2	1
2	UPPER LEVEL FAN COIL UNITS CRA-FC-2A & 2B	1	1
3	LOWER LEVEL RECIRCULATING FANS CRA-FN-3A, 3B, 3C	3	-
4	UPPER LEVEL RECIRCULATING FANS, CRA-FN-5A, 5B, 5C, 5D	2	2
5	CONTAINMENT HEAD AREA RETURN AIR FAN CRA-FN-4A & 4B	1	1

DETAIL "A"

CMS-SR-	PENET.	CMS-TS-
13	X72C	4A
13	X72C	5A
13	X72D	4B
13	X72D	5B
13	X72E	4C
13	X72E	5C
13	X82C	4D
13	X82C	5D
14	X85D	8A
14	X85D	9A
14	X85E	8B
14	X85E	9B
14	X73D	8C
14	X73D	9C
14	X84B	8D
14	X84B	9D

NOTES: CONTINUED

17- BYPASS LEAKAGE TO NON-OPERATING FAN COIL UNITS IS AS NOTED BELOW:
a) CRA-FC-1A, 1B OR 1C — 5225 CFM
b) CRA-FC-2A OR 2B — 2320 CFM

18- THE BLADE SETTING OF THE FANS SHALL BE AS NOTED BELOW:
a) CRA-FN-1A1, 1B1, 1C1 — ≡ 4.0
b) CRA-FN-1A2, 1B2, 1C2 — ≡ 3.0
c) CRA-FN-2A1, 2B1 — ≡ 1.25
d) CRA-FN-2A2, 2B2 — ≡ 9.0

DESIGN CONTROL FOR START-UP SYSTEM(S) 7, 23
TRANSFERRED TO WPPSS. ALL FUTURE CHANGES TO THIS (THESE) SYSTEM(S) SHALL BE INITIATED AND APPROVED BY THE SUPPLY SYSTEM. ALL REVISIONS TO THIS DRAWING REQUIRE APPROVAL OF THE SUPPLY SYSTEM AND THE ARCHITECT/ENGINEER.

P.R.C. APERTURE CARD
8311300323

FSAR FIG. NO. 9.4-8 (3.2-15)

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

FLOW DIAGRAM - REACTOR BLDG. PRIMARY CONTAINMENT COOLING AND PURGING SYSTEM

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
HANFORD No. 2

ENGINEERING REVIEW — SCALE: —
DRAWN: TD CHKD: W R
DATE: 5/12/72
APPROVED FOR CONSTRUCTION: 6/26/72
REVIEWED BY CHIEF DRAFTSMAN

W. O. 2808
DWG. M 543 REV. 39

REV NO	REVISION	DATE	DRWN	CHKD	APPROVED ENGR	APPROVED CLIENT
38	S.U. SYSTEM 23 TRANSFERRED TO SUPPLY SYSTEM PER W.O. 4300, MEMO EMR-83-1316, 1505	5/31/83	BAM			
39	PER TASK 3040: PED 220-1-1153 (B-6) 220-1-1215 (E-14, E-5-6) 218-1-B653 (D-E-6-7, D-13-14, F-G-13) 220-1-1161 (J-12, J-13, D-5-6, D-6, D-15)	8/1/83	RPP			
37	S.U. SYSTEM 7 TRANSFERRED TO SUPPLY SYSTEM PER W.O. 4300, MEMO EMR-83-989	7/18/83	DED			
36	PER TASK 3040 RCO 220-1-1187 (F-G-13-14) 215-M-M207 (E-5, B-5-6), 218-E-B110 (F-1-2-5, J-1-8, F-6-7-8-9, E-7, D-5-6, C-5-B-6, J-12-13, F-13-14, E-G-14-B-C-14-15, C-5-B-5, H-12, G-13, C-7-C-10, H-7), 220-1-1157 (E-14-15, E-5-6)	7/18/83	EIO			
35	PER TASK 3040: PED-215-M-1477 (B-C-14), 215-M-K-C-68, (F-8, B-C-14-15), 218-1-A-B-58, (E-F-5, D-7-8, M-10-11, J-10-11)	4-20-83	EIO			
34	FOR PREVIOUS REVISIONS SEE PREVIOUS ISSUE					
34	PER TASK 3040: PED-218-1-A253 (H-K-14-15, K-11-12, J-H-11-12, G-9, G-11-12, K-7-9, J-K-7, J-8, H-8, E-11-13, C-12, C-15, E-7, E-D-7-8, H-K-7-6, G-H-5-6, F-440, D-5-D-10 (B-C-10-11)	2-14-83	MH			
33	PER TASK 3040: PED-215-M-1477 (B-C-14), 215-M-K-C-68, (F-8, B-C-14-15), 218-1-A-B-58, (E-F-5, D-7-8, M-10-11, J-10-11)	4-20-83	EIO			

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

Docket # 50-397
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