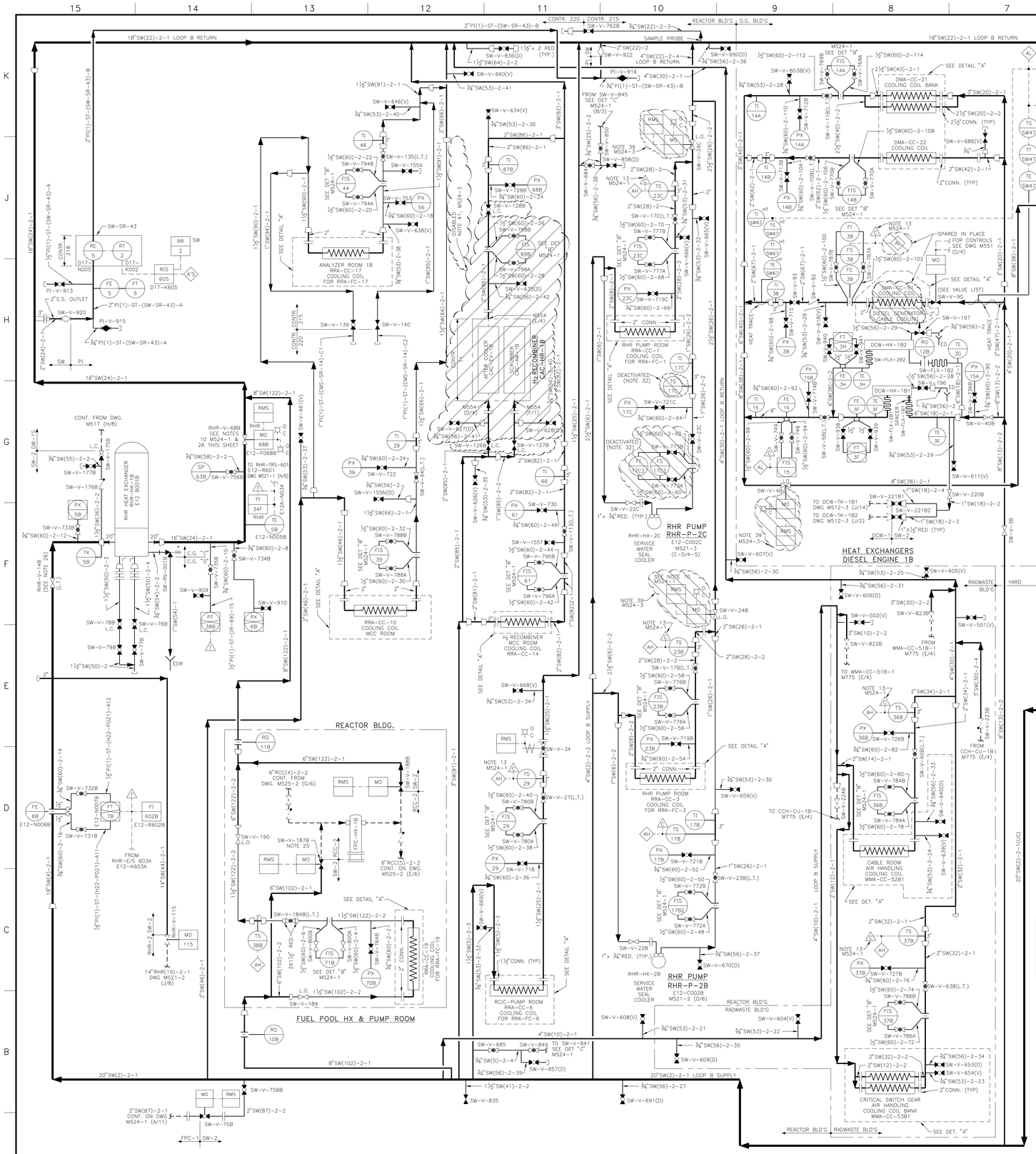

NOTES:

-- (FOR NOTES 1 THRU 19 SEE M524-1)

20. UNIQUE LINE No.'s NOT PROVIDED FOR COIL ARRANGEMENTS AT HVAC UNITS.

21. ALL INSTRUMENT LINES ARE DESIGNATED BY CODE AND LINE NUMBER.

    EXAMPLE: LINES ORIGINATING OUTSIDE CONTAINMENT.

    ½"PI(I)-ST- H22-P021-A6

    CODE DESIGNATION — LINE NUMBER

22. "UG" DENOTES UNDER GROUND PIPING (SUPPLY AND RETURN OF LOOPS A & B)

23. THE STILL WELL PIPING CONTAINING THE SPRAY POND LEVEL & TEMP INSTM SHALL BE CLASSIFIED AS FOLLOWS:

SEISMIC CATEGORY	I
QUALITY CLASS	I
CODE GROUP	D

24. CODE BREAK DEFINITIONS FOR THERMOWELLS ARE SHOWN ON M610. "INSTALLATION OF THERMOWELLS AND SAMPLE PROBES"

25. VALVE IS NOT ASME III, CLASS 3, IT IS CONSIDERED SA105 MATERIAL WELDED TO THE SYSTEM. THE FOLLOWING WASHINGTON STATE SPECIAL NUMBERS ARE IDENTIFIED WITH THE CORRESPONDING VALVES

VALVE TAG NUMBER	WASHINGTON STATE SPECIAL NUMBER
SW-V-187A	WS-24-83W
SW-V-187B	WS-23-83W

26. THOUGH INDICATING FULL OPEN, RHR-V-68A/B & RHR-V-144A/B ARE MECHANICALLY THROTTLED TO ACHIEVE FLOW BALANCE.

27. TEMPORARY SPOOL PIECE TO BE USED ONLY WHEN ONE OF THE PONDS REQUIRES DRAINING FOR MAINTENANCE. TEMPORARY CROSS CONNECTION ALLOWS THE RETURN FROM PUMP SW-P-1A TO DRAIN INTO SPRAY POND "A" WHILE SPRAY POND "B" IS ISOLATED, AND VICE VERSA.

28. CROSS-HATCHED AND SCOPED EQUIPMENT IS NON-OPERATIONAL.

29. THESE INSTRUMENTS ARE LOCATED ON THE ALTERNATE REMOTE SHUTDOWN PANEL E-CP-ARS.

30. THIS EQUIPMENT IS NORMALLY CONTROLLED FROM THE MAIN CONTROL ROOM. IF THE MAIN CONTROL ROOM MUST BE VACATED THIS CONTROL POINT MAY BE ISOLATED & CONTROL TRANSFERRED TO THE ALTERNATE REMOTE SHUTDOWN PANEL E-CP-ARS.

31. DURING NORMAL SPRAY POND OPERATION SW-V-170A AND SW-V-170B SHALL BE LOCKED OPEN (LO) AND SW-V-165A AND SW-V-165B SHALL BE CLOSED. DURING SPRAY POND BYPASS OPERATION SW-V-165A AND SW-V-165B SHALL BE LOCKED OPEN (LO) AND SW-V-170A AND SW-V-170B SHALL BE CLOSED.

32. "SPARED IN PLACE." SEAL COOLING FROM SERVICE WATER IS ONLY REQUIRED FOR THOSE RHR PUMPS UTILIZED IN THE SHUTDOWN COOLING MODE. SINCE "C" PUMP IS NOT CAPABLE OF THIS LINEUP, COOLING FROM SERVICE WATER IS NOT REQUIRED.

33. DETAIL "A" IS TYPICAL AND VALVES MAY BE GLOBE OR GATE, DEPENDING ON THE INDIVIDUAL COIL.

(NOTES CONTINUED ON M524-3)

REFERENCES TO CONTRACT NUMBERS, SUCH AS 215, 206, 220, FOUND IN THE NOTES ON THIS DRAWING REFER TO ORIGINAL CONSTRUCTION DESIGN REQUIREMENTS.

CURRENT DESIGN REQUIREMENTS ARE DOCUMENTED IN THE STATION DESIGN SPECIFICATIONS AND ACTIVE CONTRACT SPECIFICATIONS WHICH STILL APPLY.

LEGEND:

1. ALL VALVES (EXCEPT THOSE ON INSTRUMENT LINES) SUFFIXED WITH A (V) DENOTE A ¾" VENT VALVE EXCEPT AS NOTED.
2. ALL VALVES (EXCEPT THOSE ON INSTRUMENT LINES) SUFFIXED WITH A (D) DENOTE A ¾" DRAIN VALVE.
3. ALL VALVES SUFFIXED WITH A (TH) DENOTE A THROTTLED VALVE.
4. ALL VALVES SUFFIXED WITH A (L.T.) DENOTE A LOCKED THROTTLED VALVE.

VALVE LIST

COOLING COIL NO.	SW-V A	SW-V B	SW-V C	SW-V D	SIZE –	⅜" SW-V F	⅜" SW-V G	¾" SW-V K	¾" SW-V J	SW-V L	⅜" SW-V P	⅜" SW-V Q
DMA-CC-31	100	101	102	103	2½"	141	142	143	144	737A	157	158
DMA-CC-11	104A	105A	106A	107A	2½"	145A	146A	147A	148A	737B	159A	160A
DMA-CC-21	104B	105B	106B	107B	2½"	145B	146B	147B	148B	737C	159B	160B
WMA-CC-53B1	108B	109B	110B	111B	2"	149B	150B	151B	152B	737D	161B	162B
WMA-CC-53A1	108A	109A	110A	111A	2"	149A	150A	151A	152A	737E	161A	162A

VALVE LIST

COOLING COIL NO.	SW-V E	SIZE –	SW-V H	SW-V M	SW-V N	SW-V R	SW-V S
DMA-CC-12	8A	2"	153A	154A	155A	–	679(V)
DMA-CC-22	8B	2"	153B	154B	155B	156B	–
DMA-CC-32	85	2"	153C	154C	155C	156C	–
~~DMA-CC-51~~	~~90~~	~~2"~~	~~–~~	~~154D~~	~~155D~~		
RRA-CC-1	16C	2"	–	154E	155E	–	664(V)
PRA-CC-1A	65A	2"	153F	154F	155F	–	620(V)
PRA-CC-1B	65B	2"	153G	154G	155G	–	622(V)
RRA-CC-2	16A	2"	153H	154H	155H	–	663(V)
RRA-CC-3	16B	2"	–	154J	155J	156J	658(V)
RRA-CC-4	46	2"	153K	154K	155K	156K	873(V)
RRA-CC-5	36	2"	153L	154L	155L	–	–
RRA-CC-6	26	1½"	153M	154M	155M	–	–
RRA-CC-10	91	1½"	153N	154N	G/12	156N	–
RRA-CC-11	95	1½"	153P	154P	155P	156P	819(V)
RRA-CC-12	97	1½"	153R	154R	–	156R	–
RRA-CC-13	114	2"	153S	J/14	J/12	156S	–
RRA-CC-14	112	2"	153T	154T	F/11	156T	–
WMA-CC-52A1	59A	2"	153U	154U	155U	156U	–
WMA-CC-52B1	59B	2"	153V	154V	155V	156V	–
RRA-CC-15	132	1½"	153W	154W	J/14	156W	642(V)
RRA-CC-17	134	1½"	153X	154X	J/12	156X	645(V)
RRA-CC-19	152	2"	153Y	154Y	155Y	156Y	–
RRA-CC-20	150	1½"	153Z	154Z	155Z	156Z	–

SPARED IN PLACE

SEE DWG M524-3 (J/4)

INSTRUMENT LIST

COOLING COIL NO.	SW-TX A	SW-TX B	SW-PX A
DMA-CC-31	50A	50B	45A
DMA-CC-11	51A	51B	46A
DMA-CC-21	52A	52B	47A
WMA-CC-53B1	53A	53B	48A
WMA-CC-53A1	54A	54B	49A

NOTE:

UNIQUE LINE NUMBERS AT COOLING COIL DRAINS-USE SUPPLY LINE NUMBER WITH APPROPRIATE SUFFIX EG. FOR:

WMA-CC-53B1 – SW(2)-2-1K
SW(2)-2-1J

WMA-CC-52B1 – SW(14)-2-1M
SW(14)-2-1N
SW(14)-2-1S

DETAIL "A"
(SEE NOTE 33)

FSAR FIG.

REV	DATE	DESCRIPTION	DWN	CHK	APVD
95	4-29-02	REDRAWN AND REVISED PER 01496-010, 01486-018 & 01424-010	AF/BS	KL	DRJ
96	8-28-03	REV PER 002515-010 (G/9, J/9, K/9, E/10, C/10, J/10, D/11, G/12, J/12, F/15, C/13, F/11, J/11, B/8, D/8, & G/4) & 02515-013 (E/2)	CMO	HL	DRJ
97	12/23/03	REV PER 002269-281 (G-H/12-13)	JL	HL	DRJ
98	08-4-05	REV PER 03539-286 (G-J/11-12)	PL	HL	DRJ

ENERGY NORTHWEST
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COLUMBIA GENERATING STATION

SIGNATURE		DATE
APPROVED	D.R. JACOBSEN	4-29-02
CHECKED	K. LUCAS	2-21-02
DRAWN	B. L. STAFFORD AR FULLER	9-4-00 11-9-99

TITLE: FLOW DIAGRAM STANDBY SERVICE WATER SYSTEM REACTOR, RADWASTE, D.G. BLDG'S, AND YARD

SCALE: NTS | DWG NO. M524-2 | REV. 98

SERVER84\MECH\M500\M524-2.dwg

PD52-E1

TOP TIER