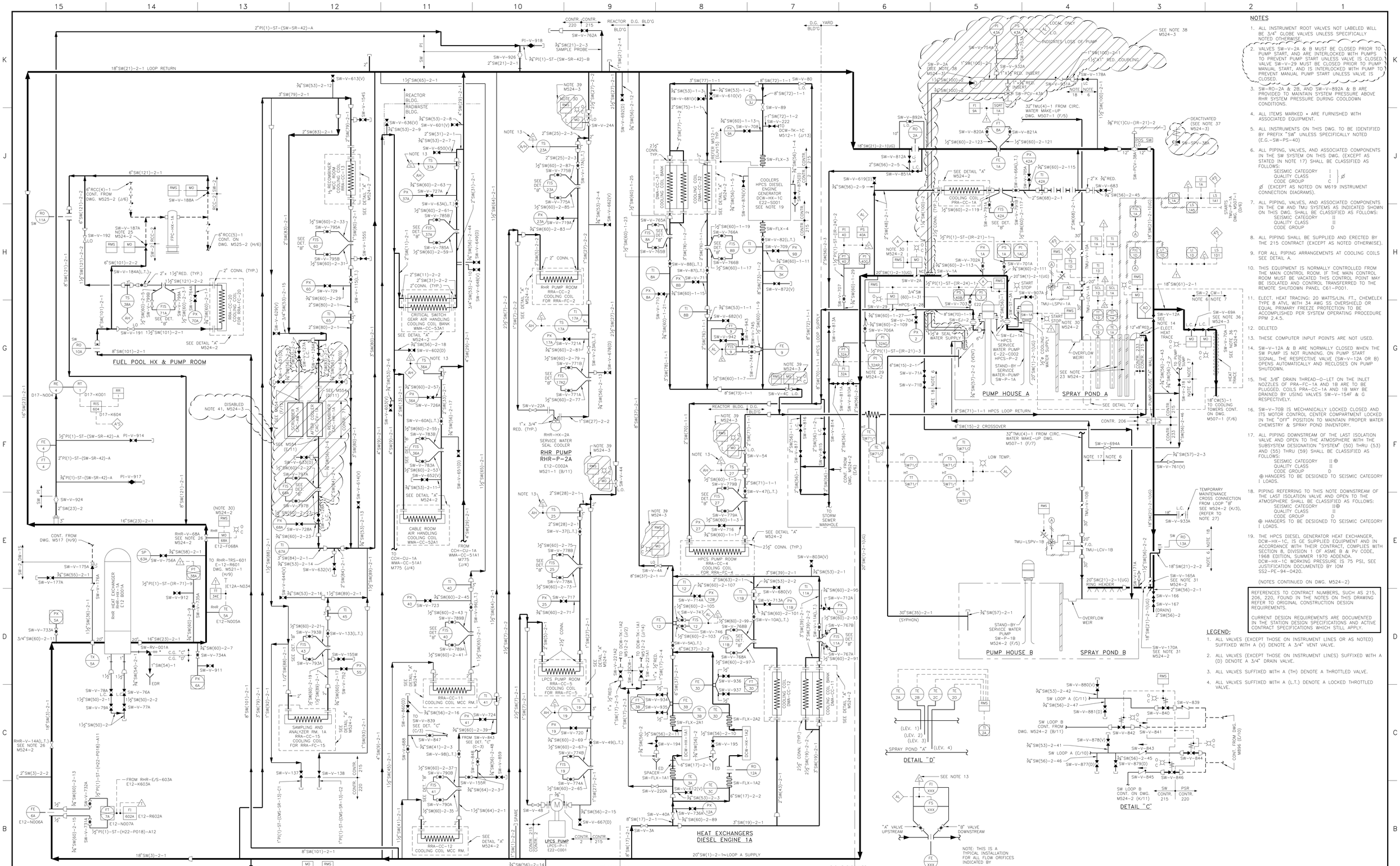

NOTES

1. ALL INSTRUMENT ROOT VALVES NOT LABELED WILL BE 3/4" GLOBE VALVES UNLESS SPECIFICALLY NOTED OTHERWISE.
2. VALVES SW-V-2A & B MUST BE CLOSED PRIOR TO PUMP START, AND ARE INTERLOCKED WITH PUMPS TO PREVENT PUMP START UNLESS VALVE IS CLOSED. VALVE SW-V-29 MUST BE CLOSED PRIOR TO PUMP MANUAL START, AND IS INTERLOCKED WITH PUMP TO PREVENT MANUAL PUMP START UNLESS VALVE IS CLOSED.
3. SW-RO-2A & 2B, AND SW-V-892A & B ARE PROVIDED TO MAINTAIN SYSTEM PRESSURE ABOVE RHR SYSTEM PRESSURE DURING COOLDOWN CONDITIONS.
4. ALL ITEMS MARKED • ARE FURNISHED WITH ASSOCIATED EQUIPMENT.
5. ALL INSTRUMENTS ON THIS DWG. TO BE IDENTIFIED BY PREFIX "SW" UNLESS SPECIFICALLY NOTED (E.G.–SW–PS–40)
6. ALL PIPING, VALVES, AND ASSOCIATED COMPONENTS IN THE SW SYSTEM ON THIS DWG. (EXCEPT AS STATED IN NOTE 17) SHALL BE CLASSIFIED AS FOLLOWS:
   SEISMIC CATEGORY I ⊕
   QUALITY CLASS I
   CODE GROUP C
   ⊘ (EXCEPT AS NOTED ON M619 INSTRUMENT CONNECTION DIAGRAMS).
7. ALL PIPING, VALVES, AND ASSOCIATED COMPONENTS IN THE CW AND TMU SYSTEMS AS INDICATED SHOWN ON THIS DWG. SHALL BE CLASSIFIED AS FOLLOWS:
   SEISMIC CATEGORY II
   QUALITY CLASS II
   CODE GROUP D
8. ALL PIPING SHALL BE SUPPLIED AND ERECTED BY THE 215 CONTRACT (EXCEPT AS NOTED OTHERWISE).
9. FOR ALL PIPING ARRANGEMENTS AT COOLING COILS SEE DETAIL A.
10. 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.
11. ELECT. HEAT TRACING: 20 WATTS/LIN. FT., CHEMELEX TYPE 8 ATVI, WITH 34 AWG SS OVERSHIELD OR EQUAL PRIMARY FREEZE PROTECTION TO BE ACCOMPLISHED PER SYSTEM OPERATING PROCEDURE PPM 2.4.5.
12. DELETED
13. THESE COMPUTER INPUT POINTS ARE NOT USED.
14. SW–V–12A & B ARE NORMALLY CLOSED WHEN THE SW PUMP IS NOT RUNNING. ON PUMP START SIGNAL, THE RESPECTIVE VALVE (SW–V–12A OR B) OPENS AUTOMATICALLY AND RECLOSES ON PUMP SHUTDOWN.
15. THE 3/8" DRAIN THREAD–O–LET ON THE INLET NOZZLES OF PRA–FC–1A AND 1B ARE TO BE PLUGGED. COILS PRA–CC–1A AND 1B MAY BE DRAINED BY USING VALVES SW–V–154F & G RESPECTIVELY.
16. SW–V–70B IS MECHANICALLY LOCKED CLOSED AND ITS MOTOR CONTROL CENTER COMPARTMENT LOCKED IN THE "OFF" POSITION TO MAINTAIN PROPER WATER CHEMISTRY & SPRAY POND INVENTORY.
17. ALL PIPING DOWNSTREAM OF THE LAST ISOLATION VALVE AND OPEN TO THE ATMOSPHERE WITH THE SUBSYSTEM DESIGNATION "SYSTEM" (50) THRU (53) AND (55) THRU (59) SHALL BE CLASSIFIED AS FOLLOWS:
   SEISMIC CATEGORY II ⊕
   QUALITY CLASS II
   CODE GROUP D
   ⊕ HANGERS TO BE DESIGNED TO SEISMIC CATEGORY I LOADS.
18. PIPING REFERRING TO THIS NOTE DOWNSTREAM OF THE LAST ISOLATION VALVE AND OPEN TO THE ATMOSPHERE SHALL BE CLASSIFIED AS FOLLOWS:
   SEISMIC CATEGORY II ⊕
   QUALITY CLASS II
   CODE GROUP D
   ⊕ HANGERS TO BE DESIGNED TO SEISMIC CATEGORY I LOADS.
19. THE HPCS DIESEL GENERATOR HEAT EXCHANGER, DCW–HX–1C, IS GE SUPPLIED EQUIPMENT AND IN ACCORDANCE WITH THEIR CONTRACT, COMPLIES WITH SECTION 8, DIVISION 1 OF ASME B & PV CODE, 1968 EDITION, SUMMER 1970 ADDENDA. DCW–HX–1C WORKING PRESSURE IS 75 PSI. SEE JUSTIFICATION DOCUMENTED BY IOM SS2–PE–94–0420.

(NOTES CONTINUED ON DWG. M524–2)

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 OR AS NOTED) SUFFIXED WITH A (V) DENOTE A 3/4" VENT VALVE.
2. ALL VALVES (EXCEPT THOSE ON INSTRUMENT LINES) SUFFIXED WITH A (D) DENOTE A 3/4" 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.

FSAR FIG.

REV	DATE	DESCRIPTION	DWN	CHK	APVD
102	4–29–02	REDRAWN AND REVISED PER 01424–009, 01485–012 & 01486–017.	AF/BS	KL	DRJ
103	09–05–03	REV PER 02515–009 (G/9–11 & 15, D/7–8 & 10, D–E/12, E/9, F/7 &11, G/9, H/7–8 & 11–14, J/5 & 9), 02515–012 (C–D/1–3)	LS	HL	SRP
104	12/23/03	REV PER 002269–282 (B/12)	JL	HL	SRP
105	06/08/05 08/10/05	REV PER 03775 (K/1–2). REV PER 03539 (E–G/12–13).	BMS PL	KB BLS	DGW 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	8–30–00 11/15/99

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

SCALE: NTS | DWG NO. M524–1 | REV. 105

SERVER04\MECH\M500\M524–1.dwg

TOP TIER