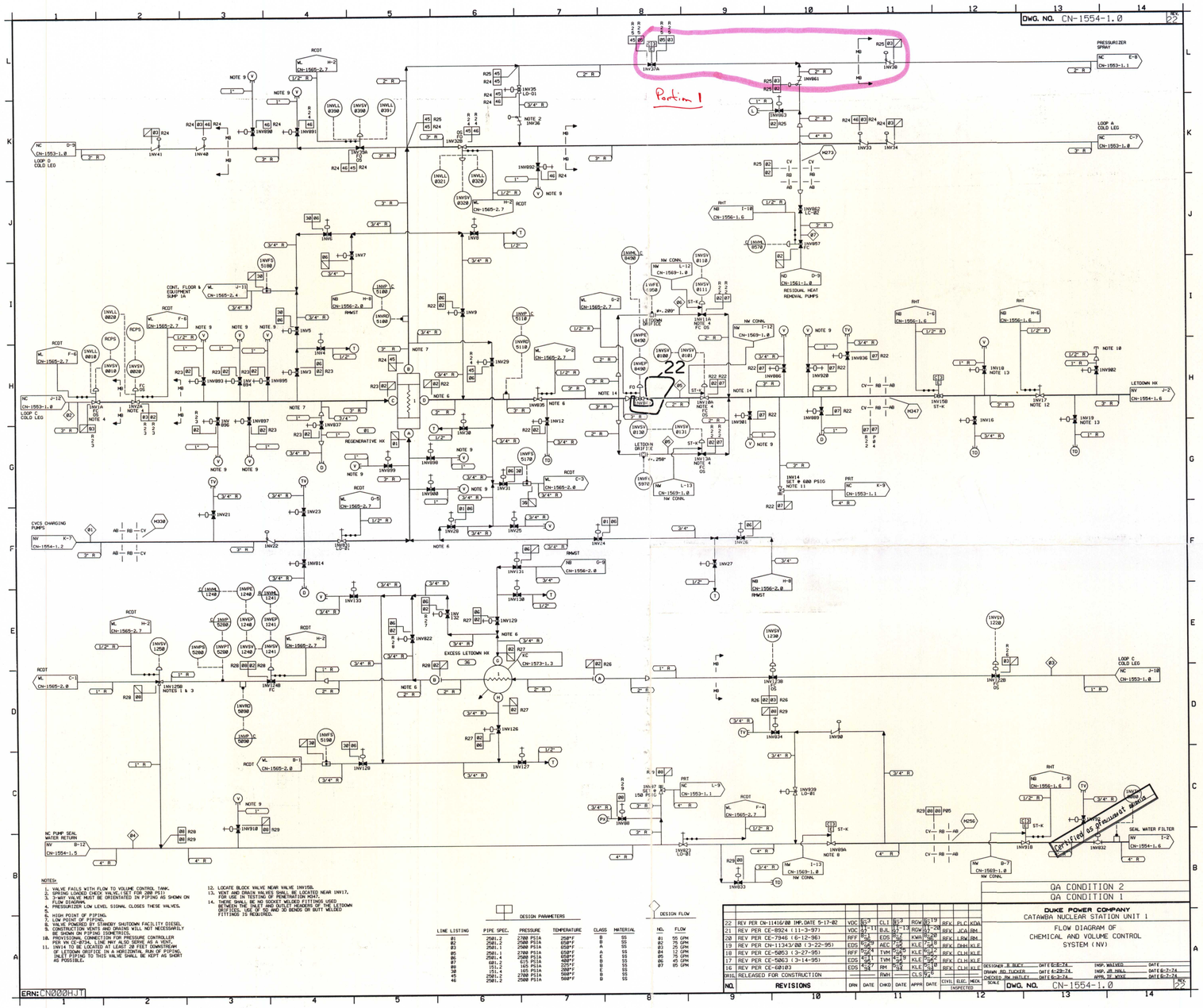
DWG. NO. CN-1554-1.0 REV 22



NOTES:

1. VALVE FAILS WITH FLOW TO VOLUME CONTROL TANK.
2. SPRING LOADED CHECK VALVE:SET FOR 200 PSI.
3. CHECK VALVES MUST BE ORIENTATED IN PIPING AS SHOWN ON FLOW DIAGRAM.
4. PRESSURIZER LOW LEVEL SIGNAL CLOSES THESE VALVES.
5.
6. HIGH POINT OF PIPING.
7. LOW POINT OF PIPING.
8. VALVE POWERED BY STANDBY SHUTDOWN FACILITY DIESEL.
9. CONSTRUCTION VENTS AND DRAINS WILL NOT NECESSARILY BE SHOWN ON PIPING ISOMETRICS.
10. PROVISIONAL CONNECTION FOR PRESSURE CONTROLLER TO BE USED DURING ISI PRESSURE TESTING.
11. INV14 TO BE LOCATED AT LEAST 20 FEET DOWNSTREAM OF LETDOWN ORIFICE IN A HORIZONTAL RUN OF PIPING. INLET PIPING TO THIS VALVE SHALL BE KEPT AS SHORT AS POSSIBLE.
12. LOCATE BLOCK VALVE NEAR VALVE INV15B.
13. VENT AND DRAIN VALVES SHALL BE LOCATED NEAR INV17, FOR USE IN TESTING OF PENETRATION MOAT.
14. THERE SHALL BE NO SOCKET WELDED FITTINGS USED BETWEEN THE INLET AND OUTLET HEADERS OF THE LETDOWN ORIFICES. USE OF 90 AND 30 BENDS OR BUTT WELDED FITTINGS IS REQUIRED.

DESIGN PARAMETERS

LINE LISTING	PIPE SPEC.	PRESSURE	TEMPERATURE	CLASS	MATERIAL
01	2581.2	2700 PSIA	258°F	B	SS
02	2581.1	2700 PSIA	650°F	A	SS
03	2581.1	2500 PSIA	650°F	A	SS
05	2581.1	2700 PSIA	650°F	A	SS
06	2581.4	2500 PSIA	650°F	E	SS
07	601.2	615 PSIA	488°F	B	SS
09	151.2	165 PSIA	200°F	B	SS
30	151.4	165 PSIA	200°F	B	SS
45	2581.2	2500 PSIA	588°F	B	SS
46	2581.2	2500 PSIA	588°F	B	SS

DESIGN FLOW

NO.	FLOW
01	55 GPM
02	25 GPM
03	25 GPM
04	12 GPM
05	75 GPM
06	45 GPM
07	85 GPM

NO.	REVISIONS	DRN	DATE	CHKD	DATE	APPR	DATE
22	REV PER CN-11416/00 IMP. DATE 5-17-02	VDC 03-3	CLL 03-3	ROW 03-19	RFK	PLC	KDA
21	REV PER CE-8924 (11-3-97)	VDC 97-11	BJL 97-11-13	ROW 97-11-20	RFK	JCA	RM
20	REV PER CE-7946 (6-12-96)	RFF 96-6	EDS 96-6	KWA 96-6-28	RFK	LRM	RM
19	REV PER CN-11343/00 (3-22-95)	EDS 95-3-21	AEC 95-3-21	KLE 95-3-21	RFK	DMH	KLE
18	REV PER CE-5053 (3-27-95)	RFF 95-3-24	TVM 95-3-24	KLE 95-3-24	RFK	CLH	KLE
17	REV PER CE-5053 (3-14-95)	EDS 95-3-21	TVM 95-3-14	KLE 95-3-14	RFK	CLH	KLE
16	REV PER CE-6818	EDS 94-7-21	RH 94-7-21	KLE 94-7-21	RFK	CLH	KLE
ORIG.	RELEASED FOR CONSTRUCTION	—	—	RMH 76-6-24	—	CLS	—

QA CONDITION 2

QA CONDITION 1

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION UNIT 1

FLOW DIAGRAM OF
CHEMICAL AND VOLUME CONTROL
SYSTEM (NV)

DESIGNED JB BUCKY DATE 6-6-74 INSP. WALVEID DATE
DRAWN RD TUCKER DATE 6-29-74 INSP. JB HALL DATE 6-7-74
CHECKED DM WATLEY DATE 6-3-74 APPR. JC WOLF DATE 6-7-74
SCALE DWG. NO. CN-1554-1.0 REV. 22

ERN: CN0000HJT

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