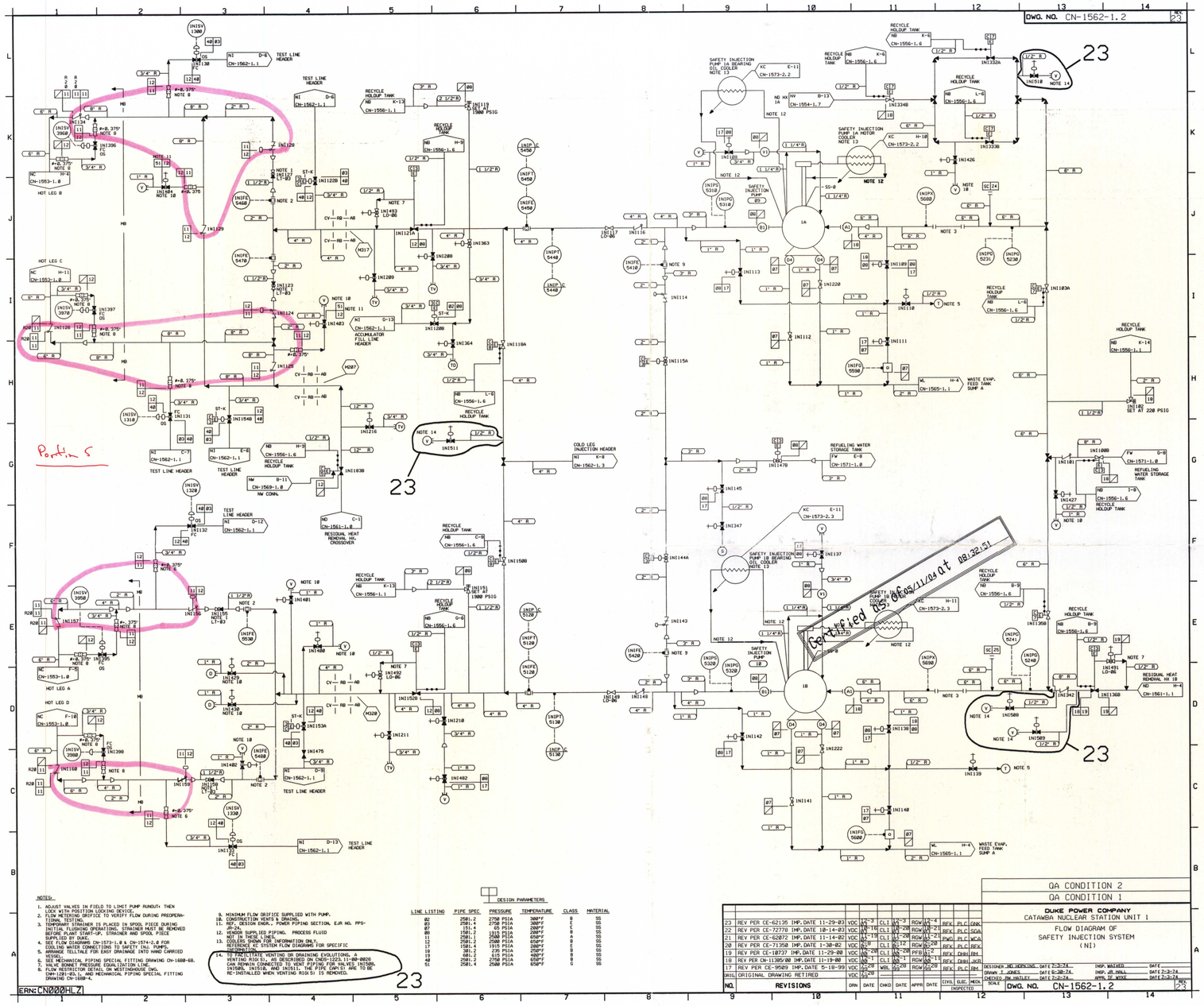
DWG. NO. CN-1562-1.2
REV. 23
QA CONDITION 2
QA CONDITION 1
DUKE POWER COMPANY
CATAWBA NUCLEAR STATION UNIT 1
FLOW DIAGRAM OF
SAFETY INJECTION SYSTEM
(NI)
REVISIONS
23 REV PER CE-62135 IMP. DATE 11-29-83
22 REV PER CE-72778 IMP. DATE 10-14-83
21 REV PER CE-62072 IMP. DATE 11-14-82
20 REV PER CE-71358 IMP. DATE 1-30-82
19 REV PER CE-18737 IMP. DATE 11-29-80
18 REV PER CN-11385/80 IMP. DATE 11-19-80
17 REV PER CE-9589 IMP. DATE 5-18-99
ORIGINAL DRAWING RETIRED
DESIGNER JRD HOPKINS DATE 2-3-74
DRAWN T JONES DATE 6-28-74
CHECKED JN HALLEY DATE 7-2-74
INSP. WAIVED DATE
INSP. JR HALL DATE 2-3-74
APPR. TC MOORE DATE 7-2-74
SCALE
ERN: CN000HLZ
Portion 5
Certified Copy 11/04/04 at 08:32:51
23
NOTES:
1. ADJUST VALVES IN FIELD TO LIMIT PUMP RUNOUT, THEN LOCK WITH POSITION LOCKING DEVICE.
2. FLOW METERING ORIFICE TO VERIFY FLOW DURING PREOPERATIONAL TESTING.
3. TEMPORARY STRAINER IS PLACED IN SPOOL PIECE DURING FLUSH. THIS STRAINER IS REMOVED AND THE SPOOL PIECE REMOVED BEFORE PLANT START-UP. STRAINER AND SPOOL PIECE SUPPLIED BY DUKE.
4. SEE FLOW DIAGRAMS CN-1573-1.0 & CN-1574-2.0 FOR COOLING WATER CONNECTIONS TO SAFETY INJ. PUMPS.
5. THERMOCOUPLE TELLTALE FOR EASY DRAINAGE INTO HAND CARRIED VESSELS.
6. SEE MECHANICAL PIPING SPECIAL FITTING DRAWING CN-1608-68.
7. VALVE BONNET PRESSURE EQUALIZATION LINE.
8. FLOW RESTRICTOR DETAIL ON WESTINGHOUSE DWG. 1208-120-01, AND MECHANICAL PIPING SPECIAL FITTING DRAWING CN-1608-4.
9. MINIMUM FLOW ORIFICE SUPPLIED WITH PUMP.
10. CONSTRUCTION VENTS & DRAINS.
11. NRC, DESIGN ENGR., POWER PIPING SECTION, EJR NO. PPS-1.
12. VENDOR SUPPLIED PIPING. PROCESS FLUID NOT IN THESE LINES.
13. SEE CN-1573-2.0 FOR INFORMATION ONLY.
14. CONSULT PIPING SYSTEM FLOW DIAGRAMS FOR SPECIFIC DESIGNATION.
15. TO FACILITATE VENTING OR DRAINING EVOLUTIONS, A VENTING RIG(S), AS DESCRIBED ON CNDS-1223.11-00-0020 CAN REMAIN CONNECTED TO VENT PIPING FOR VALVES IN1580, IN1509, IN1510, AND IN1511. THE PIPE CAP(S) ARE TO BE RE-INSTALLED WHEN VENTING RIG(S) IS REMOVED.
DESIGN PARAMETERS
LINE LISTING | PIPE SPEC | PRESSURE | TEMPERATURE | CLASS | MATERIAL
02 | 2501.2 | 2750 PSIA | 300°F | B | SS
07 | 2501.4 | 2750 PSIA | 300°F | C | SS
09 | 150L.4 | 65 PSIA | 200°F | E | SS
09 | 150L.2 | 1915 PSIA | 200°F | B | SS
11 | 2501.1 | 2500 PSIA | 650°F | A | SS
12 | 2501.2 | 2750 PSIA | 650°F | B | SS
17 | 150L.4 | 1915 PSIA | 200°F | B | SS
18 | 150L.2 | 1915 PSIA | 200°F | B | SS
19 | 601.2 | 615 PSIA | 400°F | B | SS
40 | 2501.2 | 2750 PSIA | 650°F | B | SS
51 | 2501.4 | 2500 PSIA | 650°F | C | SS
HOT LEG B
HOT LEG C
HOT LEG A
HOT LEG D
TEST LINE HEADER
RECYCLE HOLDUP TANK
SAFETY INJECTION PUMP 1A BEARING OIL COOLER
SAFETY INJECTION PUMP 1A MOTOR COOLER
SAFETY INJECTION PUMP
SAFETY INJECTION PUMP 1B BEARING OIL COOLER
SAFETY INJECTION PUMP 1B MOTOR COOLER
ACCUMULATOR FILL LINE HEADER
COLD LEG INJECTION HEADER
RESIDUAL HEAT REMOVAL HX CROSSOVER
REFUELING WATER STORAGE TANK
WASTE EVAP. FEED TANK SUMP A
WASTE EVAP. FEED TANK SUMP B
QA CONDITION 2
QA CONDITION 1

D.06