

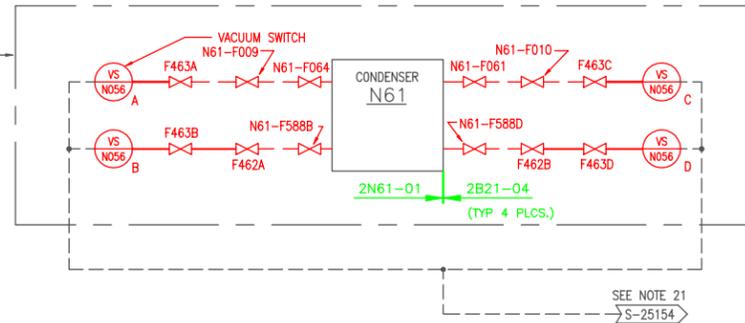
TABLE 6

Table with 4 columns: JET PUMP, ISOLATION VALVE, EFCV, DRAIN VALVE. Rows J1 through J20.

TABLE 5

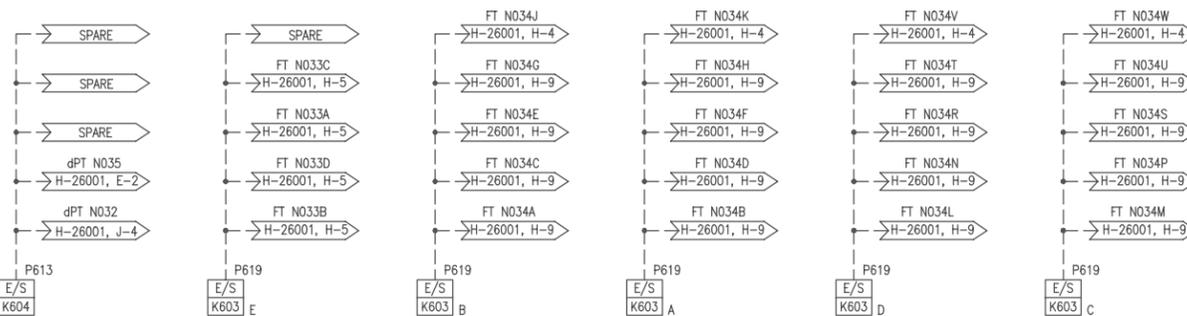
Table with 2 columns: TYPE T THERMOCOUPLE TAG NO.'s. Rows 2B21-N028A through 2B21-N030C.

SEE NOTE 37



SEE NOTE 21

S-25154



POWER DISTRIBUTION

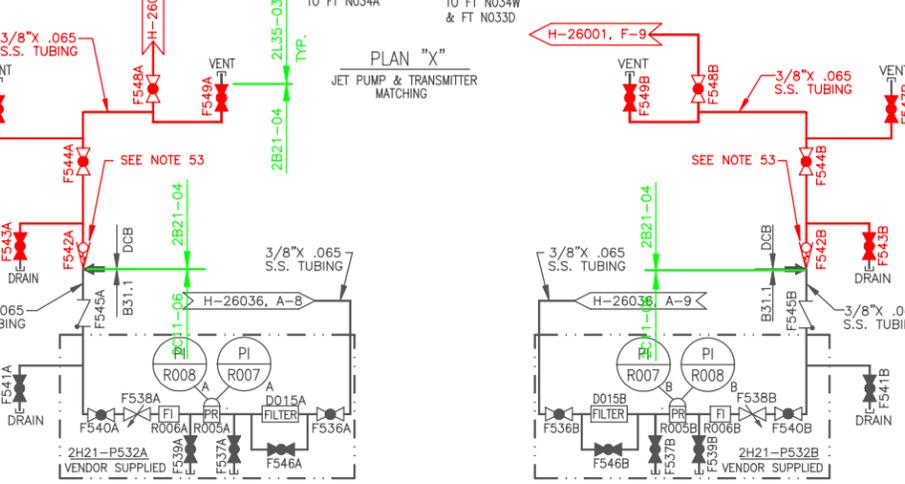
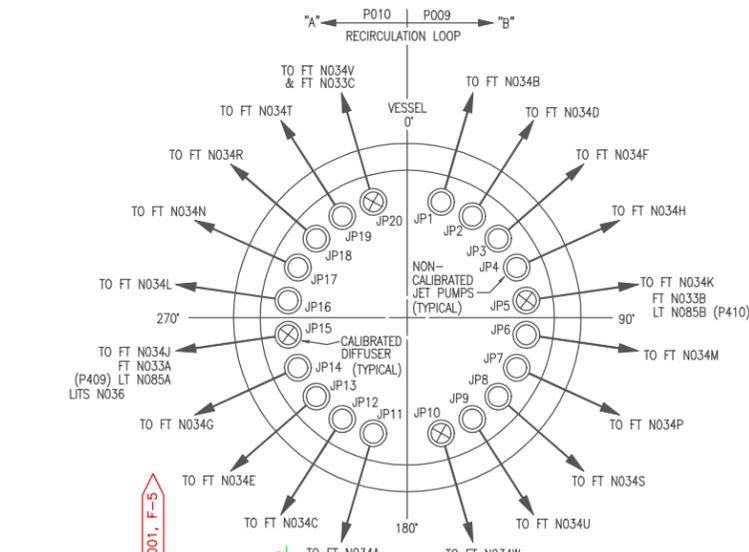


TABLE 2

ELEVATION CORRELATION CHART (SEE NOTE 5)

Table with 5 columns: REFERENCE, (COLD VESSEL) INCHES ABOVE VESSEL ZERO, DESCRIPTION OF TRIPS, INSTRUMENT (S) PROVIDING TRIP, REACTOR VESSEL LEVELS (S-25213), INDICATED LEVEL (NOTE 44).

NOTES: CONTINUED

- 34. SAMPLE PROBE(S) AND FEEDWATER SAMPLE STATION TO COMPLY WITH REF. 20, WATER SAMPLING SECTION 8.
35. ALTERNATE TAP SET ON FEEDWATER FLOW ELEMENT.
36. TRIP RECIRC. PUMP (REF. 21).
37. LOW CONDENSER VACUUM SWITCHES CONNECTED THROUGH SEPARATE CALIBRATION VLVS. TO OPPOSITE SIDES OF THE CONDENSER ABOVE THE HIGH CONDENSATE LEVEL. THE VACUUM SWITCHES MUST BE ACCESSIBLE DURING PLANT OPERATION.
38. AN ORIFICE (1/4" MIN.) IS TO BE PROVIDED WITHIN THE PRIMARY CONTAINMENT IN EACH INSTRUMENT LINE WHICH CONNECTS TO THE REACTOR COOLANT PRESSURE BOUNDARY.
39. TO BE 3/4", INSTALLED IN A STRAIGHT RUN OF PIPE AS FAR AS POSSIBLE FROM ELBOWS, TAPS, AND LOCATED SO THAT Δ P'S FROM THE TAPS TO THE VESSEL NOZZLES ARE EQUAL. TAPS TO MEET ASME PTC 6, 1964 STEAM TURBINE PARA. 4.74. TWELVE WIRES ARE TO BE PROVIDED PENETRATING THE DRYWELL FOR READOUT OF TEMPORARY PRESSURE TRANSMITTERS DURING START-UP.
40. SOLENOID VALVE F113 IS LOCATED IN H.P. CONNECTION OF SENSING LINE TO 2B21-F1033C ONLY.
41. COMPUTER INPUT TO SOLENOID VALVE FOR AUTOMATIC CONTROL.
42. FEEDWATER LEVEL SENSOR ERROR BAND ±2% RANGE. AS DESCRIBED IN THE FUNCTIONAL DESIGN CRITERIA FOR EMERGENCY RESPONSE FACILITY. TABLE "D" UNIT 2 ANALOG INPUT SIGNALS TO THE SPDS/ERF COMPUTER SYSTEMS. ALSO IDENTIFIED IS THE PANEL NUMBER/CHANNEL ADDRESS DESTINATION OF THE ANALOG SIGNALS (ie 2X75-P601/101). THE AIR ACCUMULATOR AND AIR LINE VALVES ASSOCIATED WITH EACH SAFETY RELIEF VALVE ARE ASSIGNED THE SAME SUFFIX AS THE SAFETY RELIEF VALVE.
43. THE AIR ACCUMULATOR AND AIR LINE VALVES ASSOCIATED WITH EACH SAFETY RELIEF VALVE ARE ASSIGNED THE SAME SUFFIX AS THE SAFETY RELIEF VALVE.
44. FOR TRIP SETTINGS-SEE HNP-2 INSTRUMENT SETPOINT INDEX.
45. INITIATE CLOSURE OF RECIRCULATION PUMP DISCHARGE VALVE.
46. RHR PERMISSIVE (SHUTDOWN COOLING MODE)
47. SCRAM (REF. 18) AND CLOSE PRIMARY CONTAINMENT ISOLATION SYSTEM (PCIS) VALVES EXCEPT FOR THE FOLLOWING:
A) MSIV'S
B) MSL DRAIN ISOLATION VALVES
C) REACTOR WATER SAMPLE ISOLATION VALVES
D) RWCU ISOLATION VALVES
48. DELETED
49. THE FOLLOWING DRAIN VALVES ARE ON THE CORRESPONDING ACCUMULATORS:
2B21-F448-----2B21-A002A
2B21-F451-----2B21-A002B
2B21-F454-----2B21-A002C
2B21-F457-----2B21-A002D
50. INITIATES ARI SYSTEM (REF 1)
51. B21-N024A & B AND B21-N025A & B ARE LOCAL REACTOR LEVEL INDICATORS ONLY.
52. INITIATES LLS
53. ELECTRICAL CONNECTIONS ARE NOT UTILIZED IN EXCESS FLOW CHECK VALVES F542A , B
AND 2C11-F082 ARE ISOLATED.
54. VALVE 2B21-F011A IS NOT TO BE ISOLATED UNLESS 2C11-F072 AND 2C11-F082 ARE ISOLATED.
55. SYSTEM 2E32 HAS BEEN ABANDONED IN PLACE. 2E32 COMPONENTS SHOWN ON THIS DRAWING HAVE BEEN ELECTRICALLY AND MECHANICALLY DISABLED.

NOTES:

- 1. ALL EQUIPMENT & INSTRUMENTS ARE PRECEDED BY MPL NO. 2B21 UNLESS OTHERWISE NOTED.
2. STEAM LINES, ENCLOSED IN BOXES SHALL HAVE PART NOS. CORRESPONDING TO ITS RESPECTIVE LINE NO. UNLESS OTHERWISE NOTED. EXAMPLE: XXXX IS ON LINE "B" XXXX IS ON LINE "C"
3. WHERE GV-NUMBERS ARE SHOWN THE VALVES ARE TAGGED WITH THESE NUMBERS; WHERE GV-NUMBERS ARE NOT SHOWN THE VALVES ARE TAGGED WITH THE MPL NUMBER.
4. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELDS AS REQUIRED.
5. INDICATED LEVEL TRIP SETTINGS VERSUS ACTUAL LEVEL INSIDE DRYER SEAL SKIRT IS BASED UPON:
A. CALIBRATION OF DEVICES AT 1000 PSIG REACTOR DOME PRESSURE & 135° F. DRYWELL AMBIENT TEMPERATURE X & 20 BTU/LB. SUBCOOLING IN VESSEL BELOW NOZZLE 11 & SATURATED COND. ABOVE NO. 2.11.
B. Δ P=DRYER PRESSURE DROP AT RATED LOAD=10" H2O
C. CARRY-UNDER CORRECTION (BASED ON 0.3% BY WEIGHT CARRY-UNDER)=5.5% DENSITY.
D. FEEDWATER LEVEL SENSOR ERROR BAND ±2% RANGE.
E. SAFEGUARDS LEVEL SENSOR ERROR BAND ±3% RANGE.
6. T/C JUNCTION BOX LOCALLY MOUNTED (BY OTHERS) EACH T/C JUNCTION BOX TO HAVE OWN SET OF TERMINALS.
7. LOCATE PRESSURE TEST POINTS AS CLOSE AS POSSIBLE TO 2B21-F028A, B, C, D.
8. AN EXPANSION LEG SHALL BE PROVIDED IN INSTRUMENT SENSING LINE BETWEEN POT (PART D002) AND THE BRANCH CONNECTION OFF THE VESSEL HEAD VENT LINE. THE EXPANSION LEG & PIPING INSTALLATION SHALL BE DESIGNED TO ALLOW FOR MAXIMUM CHANGE OF VESSEL LENGTH WITH TEMPERATURE TO AVOID OVERSTRESSING THE PIPING ON THE SEAL OR DAMAGE TO THE INSULATION AROUND THE VESSEL.
9. FOR LOCATION & IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT
10. ALL RELIEF AND SAFETY VALVE DISCHARGE THERMOCOUPLES SHALL BE CONNECTED TO TEMPERATURE RECORDER R614
11. INSTRUMENTS, INSTRUMENT PIPING AND VALVING MUST COMPLY WITH THE REQUIREMENTS OF REF 19.
12. ALL MOTOR AND SOLENOID OPERATED VALVES ARE NORMAL AC UNLESS OTHERWISE NOTED.
13. LINES TO DIFFERENTIAL PRESSURE TRANSMITTERS SHOULD BE AS SHORT AS PRACTICAL
14. INSTALL TEMPERATURE EQUALIZING COLUMN AND LEVEL INSTRUMENT PIPING AS DIRECTED BY VENDORS INSTALLATION DRAWING.
15. ALARMS ASSOCIATED WITH THE SYSTEMS INITIATED BY THE REACTOR PROTECTION SYSTEM OR SAFEGUARD SYSTEM LEVEL AND PRESSURE SWITCHES ARE SHOWN ON THE P&ID FOR THE PARTICULAR SYSTEM.
16. TRIP RCIC AND HPCI TURBINES ON HIGH LEVEL (REF. 13 & 15).
17. SEE NOTE 47
18. CORE SPRAY AND RHR SYSTEM VALVE OPENING PERMISSIVE (REF. 14 & 17).
19. INITIATE CLOSURE OF RWCU ISOLATION VALVES, START SBTG SYSTEM, AND INITIATE CLOSURE OF REACTOR BUILDING VENT SYSTEM DAMPERS.
20. INITIATE HPCI SYSTEM (REF. 13), RCIC SYSTEM (REF. 15), ARI SYSTEM (REF. 1).
21. INITIATE CLOSURE OF MAIN STEAM LINE ISOLATION VALVES (REF. 16).
22. CONTRIBUTE TO AUTO BLOWDOWN (REF. 16), INITIATE CORE SPRAY (REF. 17) RHR SYSTEM (REF. 14) AND START STANDBY DIESEL GENERATOR (REF. 17).
23. WATER TIGHT JUNCTION BOX TO BE LOCATED INSIDE DRYWELL.
24. SUMMER K606 & K607 INPUTS SHALL BE INTERLOCKED WITH RECIRC. PUMP AND VALVES TO ADD INPUTS WHEN BOTH PUMPS ARE RUNNING AND THEIR DISCHARGE VALVES ARE OPEN OR SUBTRACT ONE INPUT WHEN THE CORRESPONDING PUMP IS STOPPED OR ITS DISCHARGE VALVE IS CLOSED.
25. NOZZLES 6A & 6B MAY BE INTERCHANGED.
26. TYPICAL FOR ALL (16) NON-CALIBRATED JET PUMPS EXCEPT FOR ASSIGNMENT LETTER SUFFIXES. FOR LETTER SUFFIX ASSIGNMENT SEE PLAN "X" AND TABLE 6.
27. TYPICAL FOR ALL (4) CALIBRATED JET PUMPS EXCEPT FOR ASSIGNMENT LETTER SUFFIXES. FOR LETTER SUFFIX ASSIGNMENT SEE PLAN "X" AND TABLE 6.
28. CONTAINMENT SPRAY MODE RHR INTERLOCK (REF. 14).
29. REACTOR PROTECTION SYS. SCRAM SIGNAL (REF. 18).
30. RHR INTERLOCK (LPCI MODE) (REF. 14).
31. LIS N685A & L/R R615, LIS N685B & L/R R616 SHALL CORRESPOND TO COLD SHUT DOWN CONDITIONS (125°F & ATMOS).
32. INSTRUMENTS READ FULL SCALE WHEN JET PUMPS ARE IN OPERATION.
33. RECIRCULATION LINES TO HOTWELL TO COMPLY WITH REF. 20, WATER QUALITY SECTION 7.

BOUNDARY DIAGRAM NO.:2B21-B02-03
FUNCTION(S) NO.: 2B21-04
PREPARED BY: Willie Jennings
DATE: 04/23/98
REVIEWED BY: William P. Evans
DATE: 07/09/98

FOR REFERENCES SEE DWG. H-26000 (SHT. 1)
WORK THIS DRAWING WITH H-26000 (SHT. 1) AND H-26001 (SHT. 2).

LICENSE RENEWAL DOCUMENT

MPL NO. 2B21-1010 ACAD14 HL26189



LICENSE RENEWAL SCREENING FOR INFORMATION ONLY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
NUCLEAR BOILER SYSTEM P&ID
SHEET 3

Revision: A Date: 11-02-99
APPROVED, ISSUED PER LICENSE RENEWAL BOUNDARY PACKAGES.
DRAWING CREATED FROM H-26189, REV 17; BYBKN.

Table with columns: DRAWN, DESIGNED, LOCATION, DOCUMENT NUMBER, REVISION. Rows BKN, LCF, 10-502, HL-26189, A