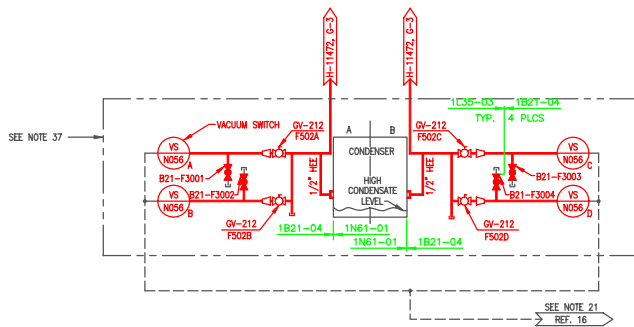


TABLE 3

JET PUMP	ISOLATION VALVE	EFVQ
J1	F058B	F058B
J2	F058D	F059D
J3	F058F	F059F
J4	F058H	F059H
J5	F050B	F051B
J6	F052B	F053B
J7	F058M	F059M
J8	F058P	F059P
J9	F058S	F059S
J10	F050D	F051D
J11	F058A	F059A
J12	F058C	F059C
J13	F058E	F059E
J14	F058G	F059G
J15	F050A	F051A
J16	F052A	F053A
J17	F058L	F059L
J18	F058N	F059N
J19	F058R	F059R
J20	F058T	F059T
J21	F050C	F051C
J22	F052C	F053C

TABLE 4

TYPE T THERMOCOUPLE TAG No.	B21-N030A1	B21-N030J2
B21-N030A1	B21-N030J2	B21-N030J3
B21-N030A2	B21-N030J4	B21-N030J5
B21-N030A3	B21-N030J6	B21-N030J7
B21-N030B1	B21-N030K2	B21-N030K3
B21-N030B2	B21-N030K4	B21-N030K5
B21-N030B3	B21-N030L2	B21-N030L3
B21-N030D1	B21-N030J2	B21-N030J3
B21-N030D2	B21-N030J4	B21-N030J5
B21-N030E1	B21-N030M2	B21-N030M3
B21-N030E2	B21-N030M4	B21-N030M5
B21-N030F1	B21-N030N2	B21-N030N3
B21-N030F2	B21-N030N4	B21-N030N5
B21-N030G1	B21-N030P2	B21-N030P3
B21-N030G2	B21-N030P4	B21-N030P5
B21-N030H1	B21-N030Q2	B21-N030Q3
B21-N030H2	B21-N030Q4	B21-N030Q5
B21-N030I1	B21-N030R2	B21-N030R3
B21-N030I2	B21-N030R4	B21-N030R5
B21-N030J1	B21-N030S2	B21-N030S3
B21-N030J2	B21-N030S4	B21-N030S5



- NOTES
- ALL EQUIPMENT & INSTRUMENTS ARE PRECEDED BY MFL NO. B21 UNLESS OTHERWISE NOTED.
 - STEAM LINES, ENCLOSED IN BOXES SHALL HAVE PART NOS. CORRESPONDING TO ITS RESPECTIVE LINE NO. UNLESS OTHERWISE NOTED. EXAMPLE: X00B IS ON LINE "C". WITH THESE NUMBERS, WHERE Q-NUMBERS ARE NOT SHOWN THE VALVES ARE TAGGED WITH THE MFL NUMBER.
 - WHERE Q-NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS. WHERE Q-NUMBERS ARE NOT SHOWN THE VALVES ARE TAGGED WITH THE MFL NUMBER.
 - HIGH POINT VENTS AND LOW POINT DRAINS ARE TO BE PROVIDED LINE TO B21-TT-N030C AND B21-TT-N030M.
 - COMPUTER INPUT TO SOLIDSTATE VALVE FOR AUTOMATIC CONTROL.
 - NUMBER WITHIN \ominus INDICATE WELD-INFLUENCE ZONE NUMBER-AD-DESIGNEE-IN-THE-INDUSTRIAL-DESIGN-ORGANIZATION-CONDUCTING-REVISIONS-ANALYSIS-SHALE-2-LINE-4-DRAWING-AD-PLS-AD-DESIGNEE-TO-SEE-7700/7700-COMPARISON-SYSTEM.
 - THE AIR ACCUMULATOR AND AIR LINE VALVES ASSOCIATED WITH EACH SAFETY RELIEF VALVE ARE ASSIGNED THE SAME SAFETY AS THE SAFETY RELIEF VALVE.
 - FOR TRIP SETTINGS SEE HNP-1 INSTRUMENT SETPOINT INDEX.
 - INITIATE CLOSURE OF REINJECTION PUMP DISCHARGE VALVE.
 - RHR PERMISSIVE (SHUTDOWN COOLING MODE).
 - SCRAM (REF. 18) AND CLOSE PRIMARY CONTAINMENT ISOLATION SYSTEM (PCIS) VALVES EXCEPT FOR THE FOLLOWING:
 - MSIV'S
 - ISL DRAIN ISOLATION VALVES
 - REACTOR WATER SAMPLER ISOLATION VALVES
 - RWCU ISOLATION VALVES
 - ALL INSTRUMENTS HAVE VALUE ARRANGEMENTS TYPICAL OF DETAIL "X".
 - ALL INSTRUMENTS HAVE VALUE ARRANGEMENTS TYPICAL OF DETAIL "C".
 - ALL RELIEF AND SAFETY VALVE DISCHARGE THERMOCOUPLES SHALL BE CONNECTED TO TEMPERATURE RECORDER R614.
 - INSTRUMENT, INSTRUMENT PIPING AND VALVING MUST COMPLY WITH THE REQUIREMENTS OF REF. 11.
 - ALL MOTOR AND SOLIDSTATE OPERATED VALVES ARE NORMAL AS UNLESS OTHERWISE NOTED.
 - VALVES TO DIFFERENTIAL PRESSURE TRANSMITTERS SHOULD BE AS SHORT AS PRACTICAL.
 - INSTALL TEMPERATURE EQUALIZING COLUMN AND LEVEL INSTRUMENT PIPING AS DIRECTED BY INSTRUMENT INSTALLATION DRAWING.
 - ALWAYS ASSOCIATED WITH THE SYSTEMS INITIATED BY THE REACTOR PROTECTION SYSTEM OR SAFEGUARD SYSTEM LEVEL AND PRESSURE SENSORS ARE SHOWN ON THE PAD FOR THE PARTICULAR SYSTEM.
 - TRIP RCD AND HFO TURBINES ON HIGH LEVEL (REF. 13 & 16).
 - SEE NOTE 47.
 - CORE SPRAY AND RHR SYSTEM VALVE OPENING PERMISSIVE (REF. 14 & 17).
 - INITIATE CLOSURE OF RWCU ISOLATION VALVES, START SBT SYSTEM (REF. 1) & 2. INITIATE CLOSURE OF REACTOR BUILDUP VENT SYSTEM DAMPERS, AND INITIATE CLOSURE OF REF FLOOR VENT SYSTEM DAMPERS HNP-1 & 2.
 - INITIATE HFO SYSTEM (REF. 13), RCD SYSTEM (REF. 15).
 - INITIATE CLOSURE OF MAIN STEAM LINE ISOLATION VALVES (REF. 16).
 - CONTRIBUTE TO AUTO BLOWDOWN (REF. 16), INITIATE CORE SPRAY (REF. 17) RHR SYSTEM (REF. 14) AND START STANDBY DIESEL GENERATOR (REF. 17).
 - WATER TIGHT JUNCTION BOX TO BE LOCKED INSIDE DRYWELL.
 - SUMMER X006 & X007 INPUTS SHALL BE INTERLOCKED WITH REACTOR PUMP AND VALVE AND INPUTS WHEN BOTH PUMPS ARE RUNNING AND THEIR DISCHARGE VALVES ARE OPEN OR SUBJECT ONE INPUT WHEN THE CORRESPONDING PUMP IS STOPPED OR ITS DISCHARGE VALVE IS CLOSED.
 - VALVES OR A 48 MAY BE INTERLOCKED.
 - TYPICAL FOR ALL 48 NON-CALIBRATED JET PUMPS EXCEPT FOR ASSIGNMENT LETTERS STRIFES. FOR LETTER SUFFIX ASSIGNMENT SEE PLAN "C" AND TABLE 3.
 - TYPICAL FOR ALL (4) CALIBRATED JET PUMPS EXCEPT FOR ASSIGNMENT LETTERS STRIFES. FOR LETTER SUFFIX ASSIGNMENT SEE PLAN "C" AND TABLE 3.
 - CONTAINMENT SPRAY MODE RHR INTERLOCK (REF. 14).
 - REACTOR PROTECTION SYS. SCRAM SHOWN (REF. 18).
 - RHR INTERLOCK (PCO MODE) (REF. 14).
 - IS MSB3A & IS R615, IS MSB3B & IS R616 SHALL CORRESPOND TO GRID SHUT DOWN CONDITIONS (12" F & ATOMS).
 - INSTRUMENTS READ FULL SCALE WHEN JET PUMPS ARE IN OPERATION.
 - RECYCULATION LINES TO HOTWELL TO COMPLY WITH REF. 20, WATER QUALITY SECTION 7.
 - SHAKE PROBES AND FEEDWATER SAMPLE SYSTEM TO COMPLY WITH REF. 20, WATER SAMPLING SECTION 8.
 - ALTERNATE TAP SET ON FEEDWATER FLOW ELEMENT.
 - TRIP REACTOR PUMP (REF. 21).
 - LOW CONDENSER VACUUM SWITCHES CONNECTED THROUGH SEPARATE CALIBRATION VALV. TO OPPOSITE Sides OF THE CONDENSER ABOVE THE HIGH CONDENSATE LEVEL. THE VACUUM SWITCHES MUST BE ACCESSIBLE DURING PLANT OPERATION.
 - AN OVERLINE (1/4" HELL) IS TO BE PROVIDED WITHIN THE WORKING DRAWING WITH H-10062 (SHT. 1) AND H-10063 (SHT. 2).

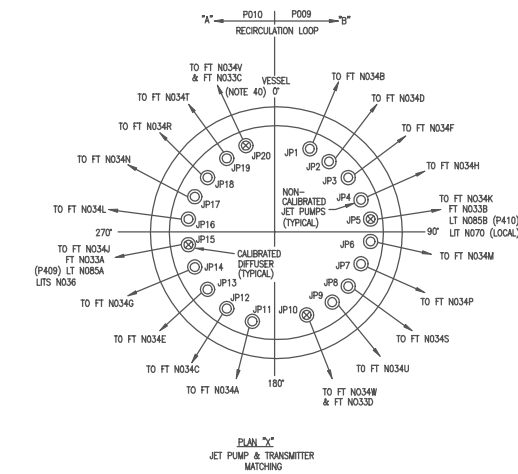
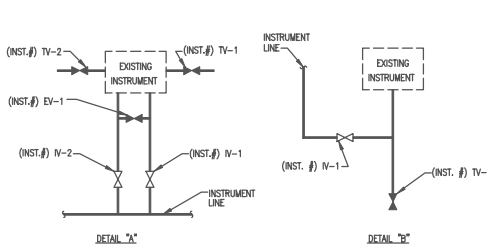
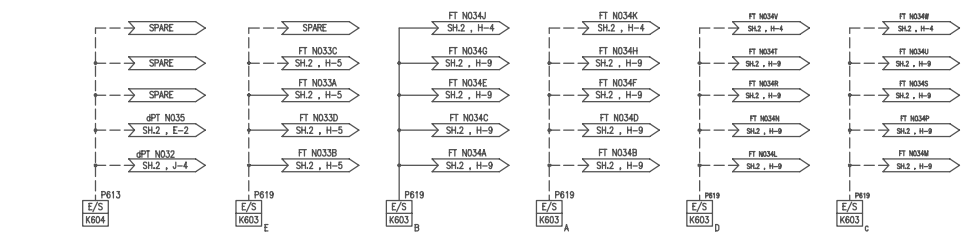


TABLE 2

ELEVATION CORRELATION CHART (SEE NOTE 5)

REFERENCE	(COLD VESSEL) INCHES ABOVE VESSEL ZERO	DESCRIPTION OF TRIPS	INSTRUMENT(S) PROVIDING TRIP	REACTOR VESSEL LEVELS (REF. 25)	INDICATED LEVEL (NOTE 44)
NOZZLE N11A, B, C, D	640.0				
NOZZLE N12A, B	586.25				
FEEDWATER SYSTEM & REACTOR PROTECTION SYSTEM FULL SCALE	577.0	1. TRIP HFO TURBINE 1. TRIP RCD TURBINE	LIS N693B LIS N693D LIS N693A LIS N693C		
		1. TRIP REACTOR FEED PUMPS 2. CLOSE MAIN TURBINE STOP VALVES	C32-L/P7R-R608		
		1. HIGH LEVEL ALARM 1. NORMAL LEVEL	C32-L/P7R-R608 FEEDWATER LEVEL CONT. SYS C32	7 8.6	+37.0 +37.0
		1. LOW LEVEL ALARM	C32-L/P7R-R608	4	
FEEDWATER SYSTEM & REACTOR PROTECTION SYSTEM ZERO BOTTOM OF DRYER SHIRT	517.0	1. SCRAM 1. CLOSE PCIS VALVES (SEE NOTE 47) 2. START RHR SHUTDOWN COOLING ISOLATION VALVES	LIS-N680A-D		0
		1. AUTO DEPRESSURIZATION SYS.(ADS) PERMISSIVE	LIS-N685A, B		0
NOZZLE N11A, B	509.0	1. INITIATE HFO CI 2. INITIATE RCD 3. INITIATE ATWS-ARI	LS N692A-D		2
		1. CLOSE RWCU ISOL. VALVES 2. START SBT SYSTEM HNP-1 & 2 3. CLOSE REACTOR BUILDUP VENTILATION SYSTEM DAMPERS 4. CLOSE REF. FLU. VENTILATION SYSTEM DAMPERS HNP-1 & 2	LS N682A-D		
		1. TRIP RECYCULATION PUMPS	LS N694A-D	ATWS/RPT	
		1. INITIATE RHR SYSTEM 2. INITIATE CORE SPRAY SYSTEM 3. CONTRIBUTE TO ADS 4. START STANDBY DIESEL	LIS N691A-D		1
		1. CLOSE MSIV'S 2. CLOSE MS. DRAIN ISOL. VALVES 3. CLOSE REACTOR WATER SAMPLE ISOL. VALVES	LIS N681A-D		-150.0
REACTOR PROTECTION SYSTEM FULL SCALE	367.0	1. CONTAINMENT SPRAY PERMISSIVE	LIS N685A, B	0	-203.5
NOZZLE N16A, B	358.0				
TOP OF ACTIVE FUEL	352.56				
LOWER JET PUMP TAP	143.0				
NOZZLE N8A, B	132.0				

BOUNDARY DIAGRAM NO. 1B21-02-03 **LICENSE RENEWAL DOCUMENT**

FUNCTION(S) NO.: 1B21-04

PREPARED BY: Willie Jennings
DATE: 04/22/98
REVIEWED BY: William P. Evans
DATE: 05/18/98

MPL NO. B21-1010 ACAD14 HL16145

SOUTHERN COMPANY

LICENSE RENEWAL SCREENING FOR INFORMATION ONLY

EDWIN I. HATCH NUCLEAR PLANT UNIT No.1
NUCLEAR BOILER SYSTEM P&ID
SHEET 3

Revisions A Date: 10-22-99
APPROVED, ISSUED PER LICENSE DRAWING BOUNDARY PACKAGES, DRAWING CREATED FROM H-16145, REV.12, BY JDM

DATE	DESCRIPTION	LOCATION	DOCUMENT NUMBER	REVISION
10-22-99	ISSUE	10-502	HL-16145	A