



**BOUNDARY DIAGRAM NO. 1B21-02, 1C61-01**  
**FUNCTION(S) NO. 1B21-02, 1C61-01**  
 PREPARED BY: Willie Jennings  
 DATE: 04/22/98  
 REVISED BY: William P. Evans  
 DATE: 05/19/98

- REFERENCES**
- REACTOR WATER CLEANUP SYS PD
  - PLANT REQUIREMENTS
  - NUCLEAR HOUR SYSTEM P & D
  - RCC SYSTEM P & D
  - INDICATE SYS P & D
  - REACTOR WATER CLEANUP SYSTEM FCD
  - PUMP & INSTRUMENT SYMBOLS
  - PROCESS INSTRUMENT PIPING & TUBING INSTALLATION SPEC.
  - RPCS SYSTEM P & D
  - RHR SYSTEM P & D
  - PRESSURE INVENTORY OF PIPING AND EQUIPMENT PRESSURE PARTS
  - REACTOR RECIRC SYSTEM P & D
  - REACTOR WATER CLEANUP SYS DESIGN SPEC.
  - LIQUID SAMPLING SYS.
  - COND. STOR. & TRNG. SYS.
  - FUEL POOL FILT./DESM. SYS.
  - DRYWELL VALVE & EXP. DRAINAGE SYS P&ID
  - CONTROL ROD DRIVE SYS.
  - PAID - HORMONEN WATER CHEMISTRY CRACK ARREST VERIFICATION SYSTEM
  - NUCLEAR INPUT SIGNALS TO THE DPC COMPUTER SYS. ILSA, SH. 6 & 19
- NOTES**
- ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL NO. G31 UNLESS OTHERWISE NOTED.
  - WHERE OH-NUMBERS ARE SHOWN, THE VALVES ARE NOTED WITH THESE NUMBERS. WHERE OH-NUMBERS ARE NOT SHOWN, THE VALVES ARE TAGGED WITH THE MPL MAIN PIPE TAG.
  - VENT, DRAIN & RELIEF VALVE DISCHARGE SYSTEMS, DRAIN TO CRW, CHRIE, OR DRY WELLS.
  - MOTOR OPER. ISOLATION VALVES CLOSE ON ANY OF THE FOLLOWING SIGNALS: (A) HIGH TEMP FOLLOWING HIGH HEAT EXCHANGER (DRY FLOOD) (B) STANDBY LIQUID CONTROL, SYS ACTUATION (ONLY F004) (C) LOW REACTOR WATER LEVEL (ONLY F004) (D) HIGH Δ TEMP-LEAK DETECTION (E) HIGH Δ FLOW-LEAK DETECTION (F) HIGH AMBIENT TEMP - LEAK DETECTION
  - CHEMICAL CLEANING AND DECONTAMINATION CONNECTIONS SHALL BE PROVIDED TO USE OPTIMAL DECONTAMINATION CONNECTIONS SHALL BE PROVIDED TO PROMOTE DECONTAMINATION OF ONE PIECE OF EQUIPMENT SEPARATELY FROM ALL OTHER EQUIPMENT. (E) FILTER-DEMINERALIZER VALVE MANIFOLD SEPARATELY FROM THE FILTER-DEMINERALIZER. HEAT E.
  - NON-REGENERATIVE HEAT EXCHANGER ES & PIPING DESIGNED TO RECOVER SYSTEM CONDITIONS.
  - HIGH POINT VENTS AND LOW POINT TRAPS ARE TO BE PROVIDED WHERE NECESSARY AS PROVIDED BY PHYSICAL ROUTING OF PIPE.
  - TEMPORARY STRAINERS SHOULD BE PROVIDED ON THE SECTION SEE OF ALL PIPES IN ACCORDANCE WITH REFERENCE 2, SECTION 9.
  - PIPING TO BE ISOLATED FOR ONE PRESSURE IS TRAP AS MAIN FEED PIPING.
  - FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
  - WHERE TWO VALUES ARE INDICATED IN A DOUBLE CIRCLE, THE FIRST VALUE IS THE SET POINT AND THE SECOND VALUE SHALL BE THE SET POINT AND CORRELATE WITH THE SYSTEM DESIGN SPECIFICATION.
  - AN OPERATED VALVE SHOWN IN FILTERING PROCESS SHALL BE TAGGED AS "CLOSE ON LOSS OF ELECTRICAL POWER" AND SHALL BE EXCEPT HOLDING VALVE.
  - USE NORMAL AC POWER FOR ELECTRICAL DEVICES AND ELECTRIC POWERED VALVES UNLESS OTHERWISE NOTED.
  - THE SHARED VALVES SHALL CONTROL THE TERNAL (SAMPLE SINK) FOR THE SAMPLES. AN SHL FLOW AND THE SAMPLE PROCS AND SHALL EFFECTIVELY PROTECT PERSONNEL FROM RADIATION.
  - TWO SENSOR SYSTEMS PER ROOM.
  - CHANGE EXISTING WELLS COMPAT WITH WATER SAMPLING REQUIREMENTS (SEE REF. 2, SECT. 6). EQUIPMENT SHOWN IN PARAGRAPH 5 SUGGESTED DESIGN.

- 17. # INDICATES VENDOR SUPPLIED MATERIAL.**
- 18. \* INDICATES VALVES AND PRESS HAVING DISASSEMBLY WELDS.**
- 19. 3/4" CONNECTION ABOVE LARGE TONGUE & GROOVE FOR LATER INSTALLATION OF SAFETY RELIEF VALVE 1031-F207A.**
- 20. @ INDICATES ALL DISCONNECTED PIPING AND COMPONENTS DOWNSTREAM OF ISOLATION VALVE 1031-F004 THROUGH VALVES 1031-F009, 1031-F202 AND UP TO VALVE C11-F004 WHICH WILL BE CONSTRUCTED TO ASME SECTION III CLASS 3 REQUIREMENTS, INSTEAD OF ORIGINAL CONSTRUCTION CODE OF 1045 B017, CLASS I.**
- 21. THERMOCOUPLE 1031-H008 HAS BEEN ELECTRICALLY DISCONNECTED AND PHYSICALLY ARMORDED IN PLACE.**

**PRESSURE TEMPERATURE INDEX**

P-T INDEX	DESIGN	PEAK	MIN
1	1150 562 1375 562 70	PSIG °F	°F °F
2	1300 563 1567 563		
3	1300 150 1553 150		
4	(SEE NOTE 9)	448 40	
5	150 150 150 150		

**ANNUNCIATION INSTRUMENTS**

AREA	INLET/OUTLET	ΔT	HIGH AMBIENT TEMP	AT & HIGH AMBI. TEMP	COLD	LOW AMBI.
RWCU HEAT EXCH. ROOM	NO23A	NO22A	NO16B	NO61A	NO62A	
CLEAN-UP PHASE SEP. RM	NO23A	NO22A				
RWCU PUMP ROOM NORTH	NO23B	NO22B	NO16C	NO61E	NO62E	
RWCU PUMP ROOM SOUTH	NO23C	NO22C	NO16D	NO61D	NO62D	
RWCU HEAT EXCH. ROOM	NO23D	NO22D	NO16E	NO61H	NO62H	
CLEAN-UP PHASE SEP. RM	NO23D	NO22D				
CLEAN-UP PHASE SEP. RM	NO22E	NO22E	NO16A	NO61J	NO62J	
CLEAN-UP PHASE SEP. RM	NO22F	NO22F	NO16F	NO61M	NO62M	

**TABLE 1**  
**THERMOCOUPLE SENSING AREAS**  
**LEAK DETECTION SENSING INSTRUMENTATION**

**LICENSE RENEWAL DOCUMENT**  
 MPL NO. G31-1010 ACAD14 HL16188

**SOUTHERN COMPANY**

**LICENSE RENEWAL SCREENING FOR INFORMATION ONLY**

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1  
 REACTOR WATER CLEAN-UP SYSTEM P & ID  
 SHEET 1

Revisions: A Date: 11-12-99  
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NO.	DATE	DESCRIPTION	BY	CHKD.
1	10/09/98	ISSUED FOR INFORMATION ONLY	None	None

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