



GIVE DEFINITION OF VALUES FOR:  
 $K_{12} =$   
 $\tau_{15} =$   
 $S =$

DISCIPLINE COMMENTS  
 USE BY 5-14

DISCIPLINE	REVISION	DATE	BY	CHKD
MECHANICAL				
ELECTRICAL				
INSTRUMENTATION				
CONTROL				
PLUMBING				
STEEL				
WELDING				
CONCRETE				
PAINTING				
INSULATION				
OTHER				

- NOTES:
- STEAM DUMP IS BLOCKED BY BLOCKING AIR TO THE DUMP VALVES AND VENTING THE DIAPHRAGM. THE REDUNDANT LOGIC OUTPUT OPERATES 2 SOLENOID VENT VALVES IN SERIES TO REDUNDANTLY INTERLOCK THE AIR LINE BETWEEN EACH VALVE DIAPHRAGM AND ITS ASSOCIATED POSITIONER. THE NON-REDUNDANT LOGIC OUTPUT OPERATES ONE SOLENOID VENT VALVE TO INTERLOCK THE AIR LINE BETWEEN EACH VALVE DIAPHRAGM AND ITS ASSOCIATED POSITIONER. THE SOLENOID VALVES ARE DE-ENERGIZED TO VENT, CAUSING THE MAIN DUMP VALVE TO CLOSE IN FIVE SECONDS. EITHER OF THE TWO REDUNDANT BLOCK SIGNALS OR THE NON-REDUNDANT BLOCK SIGNAL WILL BLOCK STEAM DUMP INDEPENDENT OF THE OTHERS.
  - CIRCUITRY ON THIS SHEET IS NOT REDUNDANT EXCEPT WHERE INDICATED.
  - SELECTOR SWITCH WITH THE FOLLOWING 3 POSITIONS:  
 ON - STEAM DUMP IS PERMITTED.  
 BYPASS - T AVG INTERLOCK IS BYPASSED FOR LO-LO T AVG. SPRING RETURN TO ON POSITION.  
 OFF - STEAM DUMP IS NOT PERMITTED AND RESET T AVG BYPASS.  
 THE REDUNDANT INTERLOCK SELECTOR SWITCH CONSISTS OF TWO CONTROLS ON THE CONTROL BOARD, ONE FOR EACH TRAIN.
  - THE TWO ANALOG SIGNAL INPUTS COMING FROM TURBINE PRESSURE MUST COME FROM DIFFERENT PRESSURE TAPS TO MEET THE SINGLE FAILURE CRITERION.
  - THE CONDENSER AVAILABLE SIGNAL LOGIC IS TYPICAL. ACTUAL IMPLEMENTATION MAY BE DIFFERENT.
  - ALL TEMPERATURE BISTABLES ON THIS SHEET AND TURBINE IMPULSE CHANGER PRESSURE BISTABLES # PB-447A AND PB-447B ARE "ENERGIZE TO ACTUATE".
  - LIGHTS SHOULD BE PROVIDED IN THE CONTROL ROOM FOR EACH DUMP VALVE TO INDICATE WHEN THE VALVE IS FULLY CLOSED OR FULLY OPEN.
  - THE STEAM LINE PRESSURE SIGNAL ORIGIN MUST BE DIFFERENT FROM THAT WHICH IS USED FOR THE STEAMLINE DIFFERENTIAL PRESSURE SAFETY INJECTION SIGNAL SHOWN ON SHEET 7 TO MEET THE SINGLE FAILURE CRITERION.

MODULATE THE DUMP VALVES ACCORDING TO THE FOLLOWING SEQUENCE:

STEAM DUMP DEMAND	VALVES MODULATED OPEN OR CLOSED (ZERO TO FULL OPEN)
0-21.4%	
21.4-42.8%	
42.8-78.5%	
78.5-100%	

CAROLINA POWER AND LIGHT COMPANY  
 SHEARON HARRIS NUCLEAR POWER PLANT  
 UNIT 1  
 STATUS: APPROVED  
 AUTHORITY: R. L. WHITNEY  
 ENGR. LTR. NO. EP/5A-25023

BY: P. CRALLE 5-1-72  
 TITLE: CAROLINA POWER & LIGHT CO. SHEARON HARRIS UNIT 1, 2, 3 & 4  
 FUNCTIONAL DIAGRAMS  
 STEAM DUMP CONTROL  
 SCALE: NONE  
 SHEET: 108D831  
 SHEET: 10  
 SUB: #88

1364-873 R 3

CAROLINA POWER & LIGHT CO. SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1 - SHEET 10 OF 10

PG 50-30

REVISION	DATE	BY	CHKD
1	5/1/72	P. CRALLE	

11  
 10  
 9  
 8  
 7  
 6  
 5  
 4  
 3  
 2  
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POOR ORIGINAL

PRO APERTURE CARD

Sheet # 50-400  
 Control # 8064000212-47  
 Date 4/15/82 of Document  
 REGULATORY DOCKET FILE

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