



- LEGEND:**
- RETENTIVE MEMORY:** WHEN 0-1 & 0-1, WHEN 0-0 & 1-1, WHEN 0-1 & 1-1, WHEN 1-0 & 1-0, WHEN INPUT IS MAINTAINED AT 1, INTRODUCTION OF 0 SIGNAL AT 1 HAS NO EFFECT ON OUTPUT. IN CASE OF POWER INTERUPTION, THE MEMORY RETURNS TO THE CONDITION LAST PRESENT.
 - ANALOG SIGNAL:** BINARY SIGNAL (B.S.)
 - TRANSFER STATION:** PATH IS STRAIGHT THROUGH (0-1) WHEN B.S.=0. LATERAL SIGNAL IS PASSED (0-1) WHEN B.S.=1 (TRANSFER CONDITION).
 - ANALOG SUMMER:** O/I PROGRAM: ABSISSA = INPUT (I), ORDINATE = CORRESPONDING OUTPUT (O). TESTPOINT CONNECTED TO METER INPUT. SELECTION SWITCH. PROPORTIONAL PLUS INTEGRAL PLUS DERIVATIVE CONTROLLER.
 - MANUAL/AUTOMATIC CONTROL STATION:** AND GATE: OUTPUT IS 1 ONLY WHEN ALL INPUTS ARE 1. OR GATE: OUTPUT IS 0 ONLY WHEN ALL INPUTS ARE 0.
 - NOT:** CHANGES 1 TO 0 & 0 TO 1.
 - ELECTRIC TO PNEUMATIC CONVERTER:** MODULATES AIR PRESSURE ACCORDING TO ELECTRICAL INPUT SIGNAL.
 - PNEUMATIC LINE:** SOLENOID VALVE: A CONNECTED TO C WHEN SOLENOID IS ENERGIZED. A CONNECTED TO B WHEN SOLENOID IS ENERGIZED.
 - PRESSURE CONTROLLED VALVE:** CLOSURE ON LOSS OF PRESSURE.
 - ADJUSTABLE TIME DELAY:** INTRODUCES TIME DELAY ONLY WHEN INPUT CHANGES FROM BINARY "1" TO BINARY "0".

D-19367-413-021

RECEIVED 07 JUL 30 1975

EBASCO SERVICES ST. LUCIE PLANT

APPROVED
REFERENCE
DESIGN

CONTRACT NO. 19367

THIS DRAWING IS THE PROPERTY OF COMBUSTION ENGINEERING, INC. AND IS NOT TO BE REPRODUCED OR USED TO FURNISH ANY INFORMATION FOR MAKING OF DRAWINGS OR APPROPRIATE EQUIPMENT WITHOUT THE WRITTEN PERMISSION OF COMBUSTION ENGINEERING, INC.

COMBUSTION DIVISION

STEAM BYPASS CONTROL SYSTEM BLOCK DIAGRAM

D-19367-413-021 07

REV.	DESCRIPTION	BY & DATE	CHK. & DATE	ENG. APPD.	PROJ. APPD.	REV.	DESCRIPTION	BY & DATE	CHK. & DATE	ENG. APPD.	PROJ. APPD.
01	REVISED BLOCK DIAGRAM PER RSR 19367-346	PL 10/1/72	PL 10/1/72	PL 10/1/72	PL 10/1/72	01	REVISED: REDRAWN PER REV REQ 19367-176	PL 10/1/72	PL 10/1/72	PL 10/1/72	PL 10/1/72
02	ADDED [M/A MASTER STATION] REVISED [PID CONTROLLERS] [AMP LOGIC] [VALVE PROG. CWS TITLE] PER REV REQ #19367-228	PL 10/1/72	PL 10/1/72	PL 10/1/72	PL 10/1/72	02	ADDED [PILOT SOLENOID VALVES #1 WITH THEIR ASSOCIATED LOGIC] [APPD. REF. DESIGN, REV. REQ. #19367-228]	PL 10/1/72	PL 10/1/72	PL 10/1/72	PL 10/1/72
03	REVISED: MODIFIED LOGIC FOR PILOT SOLENOID VALVES #1 [VALVE GROUP PROGRAM] REV REQ 19367-252	PL 10/1/72	PL 10/1/72	PL 10/1/72	PL 10/1/72	03	REVISED: MODIFIED LOGIC FOR PILOT SOLENOID VALVES #1 [VALVE GROUP PROGRAM] REV REQ 19367-252	PL 10/1/72	PL 10/1/72	PL 10/1/72	PL 10/1/72

3770-883 R/L	3770-883 R/L
FLORIDA POWER & LIGHT CO. HUTCHINSON ISLAND PLANT UNIT NO. 1-1914-890MW INSTALLATION	FLORIDA POWER & LIGHT CO. HUTCHINSON ISLAND PLANT UNIT NO. 1-1914-890MW INSTALLATION
REVISIONS	REVISIONS
1. REVISED: REDRAWN PER REV REQ 19367-176	1. REVISED: REDRAWN PER REV REQ 19367-176
2. ADDED [M/A MASTER STATION] REVISED [PID CONTROLLERS] [AMP LOGIC] [VALVE PROG. CWS TITLE] PER REV REQ #19367-228	2. ADDED [M/A MASTER STATION] REVISED [PID CONTROLLERS] [AMP LOGIC] [VALVE PROG. CWS TITLE] PER REV REQ #19367-228
3. ADDED [PILOT SOLENOID VALVES #1 WITH THEIR ASSOCIATED LOGIC] [APPD. REF. DESIGN, REV. REQ. #19367-228]	3. ADDED [PILOT SOLENOID VALVES #1 WITH THEIR ASSOCIATED LOGIC] [APPD. REF. DESIGN, REV. REQ. #19367-228]
4. REVISED: MODIFIED LOGIC FOR PILOT SOLENOID VALVES #1 [VALVE GROUP PROGRAM] REV REQ 19367-252	4. REVISED: MODIFIED LOGIC FOR PILOT SOLENOID VALVES #1 [VALVE GROUP PROGRAM] REV REQ 19367-252