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INSTRUCTIONS TO THE ADDRESSEE

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- (4) SIGN AND DATE IN THE SPACES BELOW INDICATING THAT YOU COMPLETED THESE INSTRUCTIONS.
- (5) SIGN BELOW INDICATING THAT YOU HAVE READ AND UNDERSTOOD THE CHANGES AS IDENTIFIED
- (6) RETURN TO DOCUMENT CONTROL, CRYSTAL RIVER UNIT 3, MAC# NA1C____
NR2A SA1G____ FLORIDA POWER CORP., P. O. BOX 219
CRYSTAL RIVER FLA. 32623

SIGNATURE OF ADDRESSEE _____

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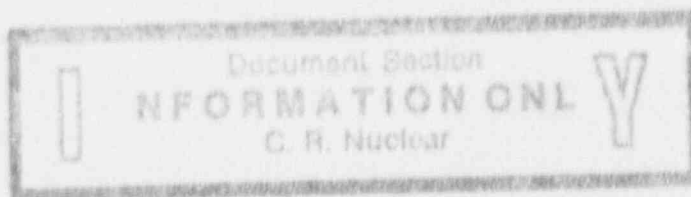
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Effective Date

1-11-92



ANNUNCIATOR RESPONSE

AR-502

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

ICS J Annunciator Response

THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS

APPROVED BY: Interpretation Contact

W. Marshall

DATE:

1/11/92

INTERPRETATION CONTACT: Nuclear Operations Superintendent

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1.0 PURPOSE

- 1.1 Establish a reference document for each Annunciator Window on the ICS-CY2 Lampbox.
- 1.2 Establish operator actions for valid Annunciator alarms on the ICS-CY2 Lampbox.
- 1.3 Establish a reference to other procedures which address operator actions for valid Annunciator alarms on the ICS-CY2 Lampbox.

2.0 REFERENCES

2.1 IMPLEMENTING REFERENCES

- 2.1.1 AP-580 - Reactor Trip
- 2.1.2 VP-540 - Runback Verification Procedure
- 2.1.3 OP-502 - Control Rod Drive System
- 2.1.4 AP-545 - Plant Runback
- 2.1.5 OP-301 - Operation of the Reactor Coolant System
- 2.1.6 OP-503 - Plant Computer System

2.2 DEVELOPMENTAL REFERENCES

- 2.2.1 INPO 90-021, Good Practice OP-217, Alarm Response Procedures
- 2.2.2 Annunciator Window Engraving Drawing E-224-048

3.0 PERSONNEL INDOCTRINATION

- 3.1 The Annunciator System is powered from VBDP-5 Breaker 28.

4.0 INSTRUCTIONS

- 4.1 Respond to alarms on the ICS-CY2 Lampbox as indicated on Enclosure 1, Annunciator Response.

5.0 FOLLOW-UP ACTIONS

None

ANNUNCIATOR PANEL LOCATION ISC-CY2ANNUNCIATOR PANEL JVERTICAL COLUMN 1

WINDOW TITLE	1. INDICATED CONDITION 2. CONTROL ROOM INDICATION WHICH VERIFY OR PINPOINT TROUBLE	1. AUTO ACTION 2. OPERATOR ACTION - VALID ALARM	SETPOINT	SENSING ELEMENT NUMBER & LOCATION
DSS CHANNEL TRIP J-1-1	1. a) RCS press > 2450 psig per Diverse Scram System A. b) RCS press > 2450 psig per Diverse Scram System B. 2. a) CRD position indication if both channels trip. b) IR nuclear instruments if both channels trip.	1. a) CRD groups 5, 6, 7, and Aux. Supply trip if both channels trip. 2. a) If both channels trip, refer to AP-SB0(RT).	2450 PSIG	K1 K2
DSS CHANNEL IN TEST J-1-2	1. a) Diverse Scram System A in test. b) Diverse Scram System B in test. 2. a) None.	1. a) Channel not in test is blocked from tripping. 2. a) Verify local cabinet status if testing is not in progress.		KA-1 KB-1
ATWS TROUBLE J-1-3	1. a) ATWS (DSS and AMSAC) Power on battery. b) ATWS channel A power failure. c) ATWS channel B power failure. 2. a) None.	1. a) None. 2. a) Verify local cabinet status. b) Initiate corrective maintenance.		AT-007-FS AN/RN
J-1-4				
CORE POWER DISTRIBUTION TROUBLE J-1-5	1. a) Quadrant power tilt $\geq 3.329\%$ - (comp. pt. M-142). b) Quadrant power tilt $\geq 9\%$ - (comp. pt. M-143). c) Control rod index - (comp. pt. M-144). d) Power imbalance - (comp. pt. M-145). e) Max power on imbalance - (comp. pt. M-146). 2. a) Computer points listed above. b) CRD rod position	1. a) None. 2. a) Determine which limit has been exceeded. b) Restore proper rod index if applicable. c) Start VP-540 (RVP).	3.329% 9%	COMPUTER CALC.
J-1-6				

WINDOW TITLE	1. INDICATED CONDITION 2. CONTROL ROOM INDICATION WHICH VERIFY OR PINPOINT TROUBLE	1. AUTO ACTION 2. OPERATOR ACTION - VALID ALARM	SETPOINT	SENSING ELEMENT NUMBER & LOCATION
RCB PRESS LOW-LOW J-2-1	1. a) RC loop A wide range pressure \leq 1550 psig. 2. a) RC pressure indicators.	1. a) H.P. injection (if not bypassed). 2. a) Ensure instrumentation not faulty by comparing with other instruments. b) Ensure HP injection has been initiated if alarm is valid and unit conditions require HP injection. c) Notify maintenance if faulty circuitry.	1550 psig	RC-3A-PS2
RCB HOLD STARTUP RATE HIGH J-2-2	1. a) Source range SUR rod withdrawal inhibit. b) Intermediate range SUR rod withdrawal inhibit. 2. a) KI neutron level indicator. b) KI neutron startup-rate indicators.	1. a) Inhibits reactor control rod withdrawal. 2. a) Insert control rods to reduced SUR. b) Cease deboration, if in progress. c) Notify maintenance if circuit faulty. d) Determine cause of high startup rate. e) Start VP-540 (RVP).	\geq 2 DPM \geq 3 DPM	H.I. CONTACTS
CRD OUT INHIBIT J-2-3	1. a) \geq 2 DPM sur in source range or \geq 3 DPM in intermediate range. b) When in auto and $>60\%$ pwr, and any safety rod not at out-limit or, an asymmetric rod pattern exists. 2. a) KI startup-rate instrumentation. b) CRD position indication panel. c) CRD control panel.	1. a) Inhibits withdrawal of control rods. 2. a) Ensure that ICS properly controls unit for the out-inhibit condition. b) Refer to OP-502. c) When out-inhibit conditions clears; depress fault reset switch and resume normal operations.	2 DPM 3 DPM	RELAYS K-32 K-33 K-118
CRD ASYMMETRIC FAULT J-2-4	1. a) One or more control rods \geq 7" (6.5%) mis- aligned from its respective group average. 2. a) Asymmetric alarm (\geq 7" (6%) misalignment on RPI panel). b) Asymmetric rod lamp on rod control panel. c) CRD position indication panel.	1. a) Possible asymmetric rod runback. 2. a) Ensure that the ICS properly controls unit for existing plant condition. b) Refer to AP-545 (PR).		K-68
CRD POWER FAULT J-2-5	1. a) Loss of 24V logic pwr supply A and/or B. b) Loss of 24V system pwr supply A and/or B. 2. a) Power supplies fault lamp on CRD control panel.	1. a) None. b) Determine cause of power fault and restore.		K-68 K-69
CRD AC DC BKR SHUNT TRIP LOSS OF PWR J-2-6	1. a) Loss of power to CRD BKR SHUNT TRIP DEVICE. 2. a) NONE.	1. a) None. 2. a) Check DPDP-SR SW 30.		

ANNUNCIATOR PANEL LOCATION ISC-CY2ANNUNCIATOR PANEL JVERTICAL COLUMN 3

WINDOW TITLE

1. INDICATED CONDITION
2. CONTROL ROOM INDICATION WHICH VERIFY OR PINPOINT TROUBLE

1. AUTO ACTION
2. OPERATOR ACTION - VALID ALARM

SETPOINT
SENSING
ELEMENT
NUMBER &
LOCATION

RCS PRESS HIGH J-3-1	<ol style="list-style-type: none"> 1. a) RC loops A or B narrow range pressure ≥ 2255 psig. 2. a) RC pressure indicators. b) Pressurizer spray valve position indicator. 	<ol style="list-style-type: none"> 1. a) Reactor trip 2355 psig. b) Electromatic relief valve (RCV-10) auto open ≥ 2450 psig. 2. a) Turn off all PZR heaters. b) Manually control PZR Spray Flow. c) Refer to RCS Pressure Guidelines in OP-301. 	2255 psig	RC-3A-PS1 RC-3B-PS
RCS TH TEMP HIGH J-3-2	<ol style="list-style-type: none"> 1. a) RC outlet temperature $\geq 605^{\circ}\text{F}$. 2. a) Th recorders/indicators. 	<ol style="list-style-type: none"> 1. a) Reactor trip at 618°F. 2. a) If ICS trouble, take manual control of affected station and reduce temperature. b) Notify maintenance if an instrument problem. 	605 $^{\circ}\text{F}$	RC-4-TS
RCS FLOW LOW J-3-3	<ol style="list-style-type: none"> 1. a) RC loop A/B flow $< 95\%$ Full Flow. b) RC total flow $< 95\%$ Full Flow. 2. a) RC loop flow indicators on control board. b) RF pump amperage not normal. c) RC pump trip. 	<ol style="list-style-type: none"> 1. a) I-ave auto/manual transfer switch will auto transfer to the loop with normal flow. b) ICS runback to load 75% FP. 2. a) Ensure ICS is controlling proper load/flow ratio. b) Ensure I-ave transfer switch functional properly. c) If instrument problem, notify maintenance. 	75% FP 95% FULL FLOW	RC-14A-FS RC-14B-FS RC-13-FS
J-3-4				
CRD CONTROL FAULT J-3-5	<ol style="list-style-type: none"> 1. a) Rod drive motor supplies A/B blower failure end/or A/B voltage regulator overheat. 2. a) Motor supplies fault lamp on CRD control panel. 	<ol style="list-style-type: none"> 1. a) None. 2. a) Determine cause of fault and restore. 		K-42 K-43
J-3-6				

ANNUNCIATOR PANEL LOCATION ISC-CY2ANNUNCIATOR PANEL JVERTICAL COLUMN 4

WINDOW TITLE	1. INDICATED CONDITION 2. CONTROL ROOM INDICATION WHICH VERIFY OR PINPOINT TROUBLE	1. AUTO ACTION 2. OPERATOR ACTION - VALID ALARM	SETPOINT	SENSING ELEMENT NUMBER & LOCATION
REACTOR TRIP J-4-1	1. a) Indicates a reactor trip confirm from CRU trip confirm logic, verifying that rod and AC & DC power supply breakers are open. 2. a) CRD in-limit indication on PI panel. b) Decreasing reactor power.	1. a) Trips turbine and actuates "Reactor Tripped" lockout relay for the turbine. 2. a) Refer to AP-580 (RT).		K-5 K-3
RCS PRESS LOW J-4-2	1. a) RC loops A or B narrow range pressure < 2055 psig. 2. a) RC pressure indicators. b) Pressurizer spray valve position indication. c) PZR Heater KW loading on rear of MCP.	1. a) Pressurizer heaters energize. 2. a) Close PZR Spray Control Valve. b) Manually Control PZR Heaters. c) Close PORV Block Valve. d) Close PZR Spray Block Valve. e) Refer to RCS Pressure Guidelines in OP-301.	2055 psig	RC-3A-PS1 RC-3B-PS
J-4-3				
J-4-4				
OPERATOR SEL COMPUTER ALARM J-4-5	1. a) Operator Selected monitored parameter is in alarm. 2. a) Computer point selected.	1. a) Depends on point selected. 2. a) Connect alarm condition. b) Select a different point. c) Refer to OP-503.		
COMPUTER ALARM J-4-6	1. a) Computer alarm has been unacknowledged for 15 minutes. 2. a) Alarm Printout. b) CRT Display.	1. a) NONE. 2. a) Acknowledge alarm. b) Correct alarm condition.		

ANNUNCIATOR PANEL LOCATION ISC-CY2ANNUNCIATOR PANEL JVERTICAL COLUMN 5

WINDOW TITLE

1. INDICATED CONDITION
2. CONTROL ROOM INDICATION WHICH VERIFY OR
PINPOINT TROUBLE

1. AUTO ACTION
2. OPERATOR ACTION - VALID ALARM

SETPOINT SENSING
ELEMENT
NUMBER &
LOCATION

RPS CHANNEL A TRIP J-5-1	<ol style="list-style-type: none"> 1. a) Parameter Setpoint Exceeded. b) RPS module switch not in "operate". c) RPS module removed. d) Loss of power to channel. e) See Note J-5-1. 2. a) NI/NNI control room indicators. 	<ol style="list-style-type: none"> 1. a) None. 2. a) Determine cause of trip and restore. 		
RPS CHANNEL A S/D BYPASS ACTUATED J-5-2	<ol style="list-style-type: none"> 1. a) Channel shutdown bypass key switch in the shutdown bypass position. 2. a) Check key lock position in RPS cabinet A2-2-5. 	<ol style="list-style-type: none"> 1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing. 		
RPS CHANNEL A BYPASSED J-5-3	<ol style="list-style-type: none"> 1. a) Channel manual bypass key switch in the manual bypass position. 2. a) Check key lock position in RPS cabinet A2-2-7. 	<ol style="list-style-type: none"> 1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing. 		
RPS CHANNEL A TROUBLE J-5-4	<ol style="list-style-type: none"> 1. a) Bistable trip. See Note J-5-1. b) NI-1 or 5 Detector Power Supply Fault. c) RPS Channel A + 15 VDC/-15 VDC power supply fault. d) Cabinet A1 or A2 fan failure. 2. a) NI/NNI cabinet indicators. 	<ol style="list-style-type: none"> 1. a) None. 2. a) Determine cause of alarm and restore. 		
J-5-5				
CRD BREAKER OPEN J-5-6	<ol style="list-style-type: none"> 1. a) Control rod drive AC breaker "A" open. b) Control rod drive AC breaker "B" open. c) Either Control rod drive DC breaker "C" open. d) Either Control rod drive DC breaker "D" open. e) Either 480V CRD feeder breaker open. 2. a) NI/NNI Cabinet Indicators. 	<ol style="list-style-type: none"> 1. a) None. 2. a) Determine cause of trip and restore. 		52-5

ANNUNCIATOR PANEL LOCATION ISC-CYZANNUNCIATOR PANEL JVERTICAL COLUMN 6

WINDOW TITLE 1. INDICATED CONDITION 1. AUTO ACTION SETPOINT SENSING
 2. CONTROL ROOM INDICATION WHICH VERIFY OR 2. OPERATOR ACTION - VALID ALARM ELEMENT
 PINPOINT TROUBLE NUMBER &
 LOCATION

RPS CHANNEL B TRIP J-6-1	1. a) Parameter Setpoint Exceeded. b) RPS module switch not in "operate". c) RPS module removed. d) Loss of power to channel. e) See Note J-5-1. 2. a) NI/WNI control room indicators.	1. a) None. 2. a) Determine cause of trip and restore.		
RPS CHANNEL B S/D BYPASS ACTUATED J-6-2	1. a) Channel shutdown bypass key switch in the shutdown bypass position. 2. a) Check key lock position in RPS cabinet B2-2-5.	1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing.		
RPS CHANNEL B BYPASSED J-6-3	1. a) Channel manual bypass key switch in the manual bypass position. 2. a) Check key lock position in RPS cabinet B2-2-7.	1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing.		
RPS CHANNEL B TROUBLE J-6-4	1. a) Bistable trip. See Note J-5-1. b) NI-2 or 6 Detector Power Supply fault. c) RPS Channel B + 15 VDC/- 15 VDC Power Supply Fault. d) Cabinet B1 or B2 fan failure. 2. a) NI/WNI cabinet indicators.	1. a) None. 2. a) Determine cause of alarm and restore.		
J-6-5				
J-6-6				

WINDOW TITLE	1. INDICATED CONDITION	1. AUTO ACTION	SETPOINT	SENSING ELEMENT NUMBER & LOCATION
	2. CONTROL ROOM INDICATION WHICH VERIFY OR FINPOINT TROUBLE	2. OPERATOR ACTION - VALID ALARM		

RPS CHANNEL C TRIP J-7-1	1. a) Parameter setpoint exceeded. b) RPS switch not in "operate". c) RPS module removed. d) Loss of power to channel. e) See Note J-5-1. 2. a) NI/NNI control room indicators.	1. a) None. 2. a) Determine cause of trip and restore.		
RPS CHANNEL C S/D BYPASS ACTUATED J-7-2	1. a) Channel shutdown bypass key switch in the shutdown bypass position. 2. a) Check key lock position in RPS cabinet C2-2-5.	1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing.		
RPS CHANNEL C BYPASSED J-7-3	1. a) Channel manual bypass key switch in the manual bypass position. 2. a) Check key lock position in RPS cabinet C2-2-7.	1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing.		
RPS CHANNEL C TROUBLE J-7-4	1. a) Bistable trip. See Note J-5-1. b) NI-3 or 7 Detector Power Supply Fault. c) RPS Channel C + 15 VDC/ - 15 VDC Power Supply Fault. d) Cabinet C1 or C2 fan failure. 2. a) NI/NNI cabinet indicators.	1. a) None. 2. a) Determine cause of alarm and restore.		
TURBINE TRIP BYPASS J-7-5	1. a) Reactor trip from turbine trip is bypassed. 2. a) Reactor power is < 45%.	1. a) None. 2. a) Verify reactor power < 45%.	45% FP	
J-7-6				

ANNUNCIATOR PANEL LOCATION 1SC-CY2ANNUNCIATOR PANEL JVERTICAL COLUMN 8

WINDOW TITLE	1. INDICATED CONDITION 2. CONTROL ROOM INDICATION WHICH VERIFY OR PINPOINT TROUBLE	1. AUTO ACTION 2. OPERATOR ACTION - VALID ALARM	SETPPOINT	SENSING ELEMENT NUMBER & LOCATION
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RPS CHANNEL D TRIP J-B-1	1. a) Parameter setpoint exceeded. b) RPS module switch not in "operate". c) RPS module removed. d) Loss of power to channel. e) See Note J-5-1. 2. a) NI/NNI control room indicators.	1. a) None. 2. a) Determine cause of trip and restore.		
RPS CHANNEL D S/D BYPASS ACTUATED J-B-2	1. a) Channel shutdown bypass key switch in the shutdown bypass position. 2. a) Check key lock position in RPS cabinet D2-2-5.	1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing.		
RPS CHANNEL D BYPASSED J-B-3	1. a) Channel manual bypass key switch in the manual bypass position. 2. a) Check key lock position in RPS cabinet D2-2-7.	1. a) None. 2. a) Ensure that bypass function is compatible with plant operations/testing.		
RPS CHANNEL D TROUBLE J-B-4	1. a) Bi-stable trip. See Note J-5-1. b) NI-4 or B Detector Power Supply Fault. c) RPS Channel D + 15 VDC / - 15 VDC Power Supply Fault. d) Cabinet D1 or D2 fan failure. 2. a) NI/NNI cabinet indicators.	1. a) None. 2. a) Determine cause of alarm and restore.		
XC PUMP MONITOR IN BYPASS J-B-5	1. a) RCP Power Monitor Channel in bypass. b) Shutdown bypass switch in shutdown bypass. c) See Note J-B-5. 2. a) Status lamp indication.	1. a) None. 2. a) Return selector switch to normal after test.		557
J-B-5				

ANNUNCIATOR
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NOTES

- J-5-1 1. a) Exceeding the safety system setting of the following parameters will cause the Reactor Trip Module to trip:

DESCRIPTION	CH-A	CH-B	CH-C	CH-D
*OVERPOWER TRIP	A1-7-11	B1-7-11	C1-8-11	D1-8-11
*RB HI PRESS.	A1-4-14	D1-4-14	C1-6-14	D1-6-14
*HI TEMP	A2-4-5	B2-4-6	C2-4-6	D2-4-6
*HI PRESS	A2-3-6	B2-3-6	C2-3-7	D2-3-7
PRESS/TEMP	A2-4-4	B2-4-4	C2-4-4	D2-4-4
LOW PRESS	A2-4-2	B2-4-2	C2-3-9	D2-3-9
PWR/IMB/FLOW	A1-4-11	B1-4-11	C1-5-11	D1-5-11
POWER/PUMPS	A1-3-8	B1-3-8	C1-4-8	D1-4-8

*Remain in trip string after shutdown bypass is initiated.

- b) Placing any of the following modules in other than 'operate' position will cause the Reactor Trip Module to trip:

POWER RANGE TEST	A1-6-1	B1-6-1	C1-4-1	D1-4-1
CONTACT MONITOR TEST	A1-3-1	B1-3-1	C1-5-1	D1-5-1
FLOW CHAN TEST	A1-4-1	B1-4-1	C1-7-1	D1-7-1
TEMPERATURE TEST	A2-4-13	B2-4-13	C2-4-13	D2-4-13
PRESSURE TEST	A2-3-13	B2-3-13	C2-3-13	D2-3-13
RB HI PRESS TEST	A1-4-14	B1-4-14	C1-6-14	D1-6-14

ANNUNCIATOR
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NOTES

c) Removing any of the following modules will cause the Reactor Trip Module to trip:

CONTACT MONITOR	A1-3-4	B1-3-4	C1-4-4	D1-4-4
PWR/PUMPS B.S.	A1-3-7	B1-3-7	C1-4-7	D1-4-7
CONT MON AUX B.S.	A1-3-13	B1-3-13	C1-4-13	D1-4-13
LOOP ASQ RT EXT	A1-4-7	B1-4-7	C1-5-4	D1-5-4
PWR/IMB/FLOW B.S.	A1-4-10	B1-4-10	C1-5-7	D1-5-7
RB HI PRESS	A1-4-14	B1-4-14	C1-5-10	D1-5-10
LOOP B SQ RT EXT	A1-5-7	B1-5-7	C1-6-14	D1-6-14

	DESCRIPTION	CH-A	CH-B	CH-C	CH-D
J-5-1	TOT FLOW BUFFER AMP	A1-5-10	B1-5-10	C1-6-4	D1-6-4
	PWR ENG TEST CKT	A1-6-1	D1-6-1	C1-7-1	D1-7-1
	LIN AMP TOP ION CH	A1-6-4	B1-6-4	C1-7-4	D1-7-4
	LIN-AMP BOT ION CH	A1-6-7	B1-6-7	C1-7-7	D1-7-7
	PWR ENG DET P.S.	A1-6-13	B1-6-13	C1-7-13	D1-7-13
	SUMMING AMP	A1-7-1	B1-7-1	C1-8-1	D1-8-1
	DELTA FLUX	A1-7-4	B1-7-4	C1-8-4	D1-8-4
	FUNCTION GEN	A1-7-7	B1-7-7	C1-8-7	D1-8-7
	OVERPOWER B.S.	A1-7-10	B1-7-10	C1-8-10	D1-8-10
	LOW PRESS B.S.	A2-4-1	B2-4-1	C2-2-1	D2-2-1
	PRESS/TEMP B.S.	A2-4-3	B2-4-3	C2-2-3	D2-2-3
	HI TEMP B.S.	A2-4-5	B2-4-5	C2-4-10	D2-4-10
	880 SIG CONVERTOR	A2-4-7	B2-4-7	C2-3-6	D2-3-6
	LINEAR BRIDGE	A2-4-10	B2-4-10	C2-3-8	D2-3-8
	HI PRESS B.S.	A2-3-5	B2-3-5	C2-3-10	D2-3-10
	PRESS BUFFER AMP	A2-3-7	B2-3-7	C2-4-3	D2-4-3
	SHUTDOWN BYP B.S.	A2-2-1	B2-2-1	C2-4-5	D2-4-5
	SHUTDOWN BYP AUX RELAY	A2-2-3	B2-2-3	C2-4-7	D2-4-7
	KEY SWITCH MODULE	A2-2-5	B2-2-5	C2-2-5	D2-2-5

NOTE: J-8-5

- a) RC Pump Monitor RCPM-3A Bistable A
- b) RC Pump Monitor RCPM-3B Bistable A
- c) RC Pump Monitor RCPM-3A Bistable B
- d) RC Pump Monitor RCPM-3B Bistable B
- e) RC Pump Monitor RCPM-3A Bistable C
- f) RC Pump Monitor RCPM-3B Bistable C
- g) RC Pump Monitor RCPM-3A Bistable D
- h) RC Pump Monitor RCPM-3B Bistable D