

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8510080455 DOC. DATE: 85/10/02 NOTARIZED: NO DOCKET #
 FACIL: 50-261 H.B. Robinson Plant, Unit 2, Carolina Power & Light Co. 05000261
 AUTH. NAME: AUTHOR AFFILIATION
 ZIMMERMAN, S.R. Carolina Power & Light Co.
 RECIP. NAME: RECIPIENT AFFILIATION
 VERGA, S.A. Operating Reactors Branch 1

SUBJECT: Provides addl info re valves in ESF sys which failed to satisfy NRC review guidance for Generic Item B-24, per 831205 ltr. No mods necessary. Related drawings, including one oversize drawing, encl.

DISTRIBUTION CODE: B001D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 9+1
 TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

NOTES: OL: 07/31/70 05000261

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
NRR/DL/ADOR	1 0	NRR ORB1 BC	1 0
NRR ORB1 LA	1 0	REQUA, G 01	1 1
INTERNAL: ACRS 41	6 6	ADM/LFMB	1 0
ELD/HDS1	1 0	IE FILE	1 1
IE/DEPER/EPB 36	1 1	IE/DQAVT/QAB21	1 1
NRR ROE, M.L.	1 1	NRR/DE/AEAB	1 0
NRR/DE/CEB 11	1 1	NRR/DE/EHEB	1 1
NRR/DE/EOB 13	2 2	NRR/DE/GB 28	2 2
NRR/DE/MEB 18	1 1	NRR/DE/MTEB 17	1 1
NRR/DE/SAB 24	1 1	NRR/DE/SGEB 25	1 1
NRR/DHFS/HFEB40	1 1	NRR/DHFS/LQB 32	1 1
NRR/DHFS/PSRB	1 1	NRR/DL/SSPB	1 0
NRR/DSI/AEB 26	1 1	NRR/DSI/ASB	1 1
NRR/DSI/CPB 10	1 1	NRR/DSI/CSB 09	1 1
NRR/DSI/ICSB 16	1 1	NRR/DSI/METB 12	1 1
NRR/DSI/PSB 19	1 1	NRR/DSI/RAB 22	1 1
NRR/DSI/RSB 23	1 1	<u>REG FILE</u> 04	1 1
RGN2	3 3	RM/DDAMI/MIB	1 0
EXTERNAL: 24X	1 1	BNL (AMDTs ONLY)	1 1
DMB/DSS (AMDTs)	1 1	LPDR 03	1 1
NRC PDR 02	1 1	NSIC 05	1 1
PNL GRUEL, R	1 1		

Aperture Card Dist.
 Drawings To: Reg Files



Carolina Power & Light Company

OCT 0 2 1985

SERIAL: NLS-85-298

Director of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23
COMPLETION OF GENERIC ITEM B-24 RESPONSE
CONTAINMENT PURGING/VENTING DURING NORMAL OPERATION

Dear Mr. Varga:

In a letter dated December 5, 1983, regarding the completion of Generic Item B-24, Containment Purging/Venting During Normal Operations, the NRC identified certain valves in Carolina Power & Light Company's (CP&L) H. B. Robinson Plant, Unit No. 2 (HBR2), Engineered Safety Feature (ESF) Systems which did not satisfy NRC review guidance. This letter provides additional information about these valves and the applicability of the guidance.

BACKGROUND

In the December 5, 1983 letter, the NRC recommended modifications to certain ESF System valves based on the Franklin Research Center Technical Evaluation Report (TER). Specifically, the TER indicated the valve control circuitry for Valves V-739, V-1786, and V-1721 did not conform to the review guidance.

DISCUSSION

The TER discussion of ESF control circuits indicated that equipment level bypasses are provided for at least three valves (V-739, Component Cooling Water outlet isolation valve for the Excess Letdown Heat Exchanger, and V-1786 and V-1721, Waste Disposal System containment isolation valves) which, if activated following one safety activation signal, will block a second safety activation signal (or an initiating signal if actuated prior to receipt of the signal) thus, preventing the equipment from performing its protective action.

The three valves specifically mentioned in the TER are air-operated valves that are normally in an open position, which fail in a closed position. The valves are controlled from the Reactor Turbine Generator Board (for V-739) and the Waste Disposal Panel (for V-1786 and V-1721) via 3-way position switches (Closed, Auto (Normal), Open).

In the auto (normal) position, the valve is open but automatically shuts on a containment isolation signal (Phase "A" derived manually or from safety injection). The position switch has a spring-loaded mechanism which, if placed in the open position, will return the switch to the auto (normal) position when the operator releases the switch.

8510080455 851002
PDR ADCK 05000261
P PDR

411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

*13001
1/1
Aperture Card
Dist
Drawing
To: Reg Files*

After the containment isolation signal has cleared and been reset, the 3-way switch is utilized to return the valve to the normal position. In addition, the valves are cycled manually through the use of the 3-way switch after maintenance (if operability needs to be demonstrated) and during required surveillances to demonstrate valve operability.

When a containment isolation signal is received, the position status of the containment isolation valves is provided in the Control Room with pink lights showing the valve in position, and blue lights, out of position. Thus, if any valve is not automatically placed in the appropriate position, the operator can manually position the valve. Even if the valve is placed in the open position prior to or during a containment isolation signal, it will perform its protective action when the switch is returned (spring loaded) to the automatic position.

The TER also noted at least one valve (V-739) which will change position upon the reset of an ESF actuation signal. This valve, as well as other valves which activate on an ESF signal, were modified to satisfy the Westinghouse Technical Bulletin NSD-TB-77-13 concern regarding safety-related, stem-mounted limit switches. Such a valve will now close when an ESF actuation signal is received, and will remain closed until the isolation signal is reset, and the operator manually reopens the valve. Therefore, the valve will not change position upon reset of an ESF actuation signal.

CONCLUSION

Carolina Power & Light Company believes the ESF systems at HBR2 meet the intent of the review guidance, and no modifications are necessary.

Control Wiring Diagrams for V-739, V-1786, and V-1721, as well as the Safeguards System Drawing are provided for review.

If you have any further questions on this matter, please contact Mr. Jan Kozyra at (919) 836-7924.

Yours very truly,



S. R. Zimmerman
Manager

Nuclear Licensing Section

BAT/rtj (1849BAT)

Attachments

1. Drawing No. CP-380 5379-3235, Rev. 16, Safeguards Systems
2. Drawing No. B-190628, Sheet No. 37, Rev. 5, Control Wiring Diagram
3. Drawing No. B-190628, Sheet No. 40, Rev. 3, Control Wiring Diagram
4. Drawing No. B-190628, Sheet No. 229, Rev. 7, Control Wiring Diagram
5. Drawing No. B-190628, Sheet No. 340, Rev. 11, Control Wiring Diagram
6. Drawing No. B-190628, Sheet NO. 346, Rev. 11, Control Wiring Diagram

cc: Dr. J. Nelson Grace (NRC-RII)
Mr. G. Requa (NRC)
Mr. H. Krug (NRC Resident Inspector - RNP)

DEV. 1

CONTACT BLOCK	SELECTOR SW. OPERATOR 3-POSITION MAINTAINED OT2S8				
1 st BLOCK (FRONT) OT2A (ROTATED 180°)	L11 O	L	R	R11 O	
	L12 NC	X	X	R12 NO	

DEV. 2

CONTACT BLOCK	SELECTOR SW. OPERATOR 2-POSITION MAINTAINED OT2S1				
1 st BLOCK (FRONT) OT2A	L11 O	L	R	R11 O	
	L12 NO	X	O	R12 NC	

DEV. 3

CONTACT BLOCK	SELECTOR SW. OPERATOR 3-POSITION MAINTAINED OT2S8				
1 st BLOCK (FRONT) OT2M	L11 O	L	R	R11 O	
	L12 NO	O	O	R12 NO	
2 nd BLOCK OT2N	L21 O	O	X	R21 O	
	L22 NC	X	O	R22 NC	

DEV. 4

CONTACT BLOCK	SELECTOR SW. OPERATOR 2-POSITION MAINTAINED OT2S1				
1 st BLOCK (FRONT) OT2A	L11 O	L	R	R11 O	
	L12 NO	X	O	R12 NC	
2 nd BLOCK OT2A (ROTATED 180°)	L21 O	X	O	R21 O	
	L22 NC	O	X	R22 NO	

DEV. 5

CONTACT BLOCK	SELECTOR SW. OPERATOR 3-POSITION, SPRING RETURN RIGHT TO CENTER OT2Z6				
1 st BLOCK (FRONT) OT2A (ROTATED 180°)	L11 O	L	R	R11 O	
	L12 NC	X	O	R12 NO	

DEV. 7

CONTACT BLOCK	SELECTOR SW. OPERATOR 3-POSITION, SPRING RETURN TO CENTER OT2V6				
1 st BLOCK (FRONT) OT2A (ROTATED 180°)	L11 O	L	R	R11 O	
	L12 NC	X	O	R12 NO	

DEV. 6

CONTACT BLOCK	SELECTOR SW. OPERATOR 3-POSITION, SPRING RETURN RIGHT TO CENTER OT2Z6				
1 st BLOCK (FRONT) OT2M	L11 O	L	R	R11 O	
	L12 NO	X	O	R12 NO	
2 nd BLOCK OT2N	L21 O	O	X	R21 O	
	L22 NC	X	O	R22 NC	
3 rd BLOCK OT2M	L31 O	X	O	R31 O	
	L32 NO	O	X	R32 NO	

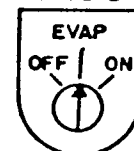
DEV. 8

CONTACT BLOCK	SELECTOR SW. OPERATOR 3-POSITION, SPRING RETURN RIGHT TO CENTER OT2Z6				
1 st BLOCK (FRONT) OT2A (ROTATED 180°)	L11 O	L	R	R11 O	
	L12 NC	X	X	R12 NO	
2 nd BLOCK OT2A (ROTATED 180°)	L21 O	O	O	R21 O	
	L22 NC	X	X	R22 NO	

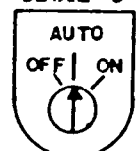
DETAIL "A"



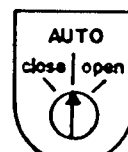
DETAIL "B"



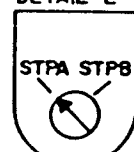
DETAIL "C"



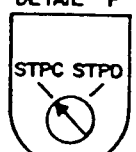
DETAIL "D"



DETAIL "E"



DETAIL "F"



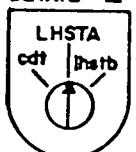
DETAIL "G"



DETAIL "H"



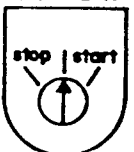
DETAIL "I"



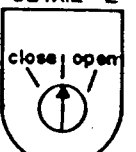
DETAIL "J"



DETAIL "K"



DETAIL "L"



NOTES:

1. O = CONTACT OPEN, X = CONTACT CLOSED
2. SWITCHES AND LEGEND PLATE SHOWN FRONT VIEW.

INFO ONLY

SEP 10 1985

SWITCH DEVELOPMENT

CP&L

Carolina Power & Light Co.
H.B. ROBINSON S.E. PLANT
UNIT - NO. 2
Hartsville, South Carolina

VENDOR DRAWING NO.
5008452

Desgn. H

Scale: NONE

Dwn H. LLOYD

Date: 2-11-82

Ch Rsm

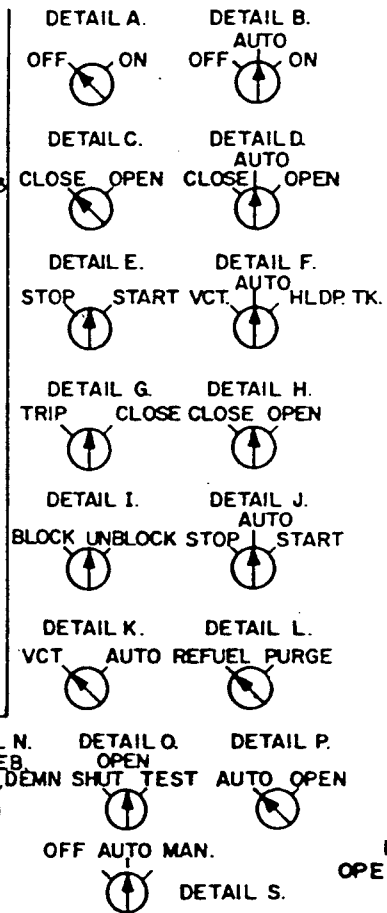
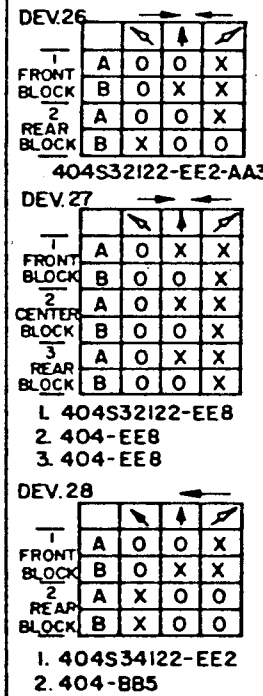
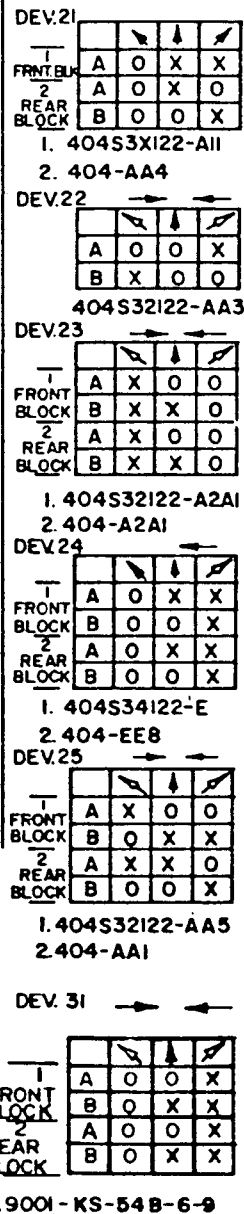
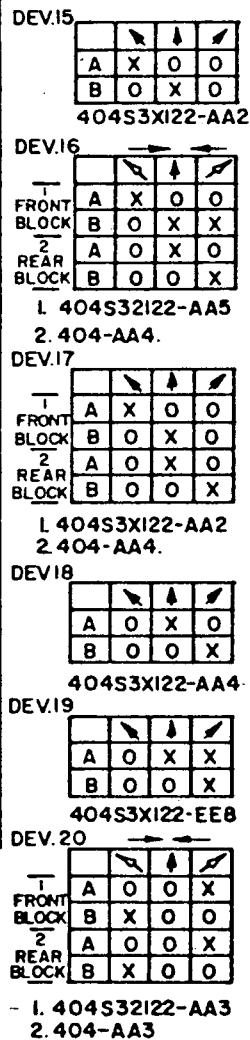
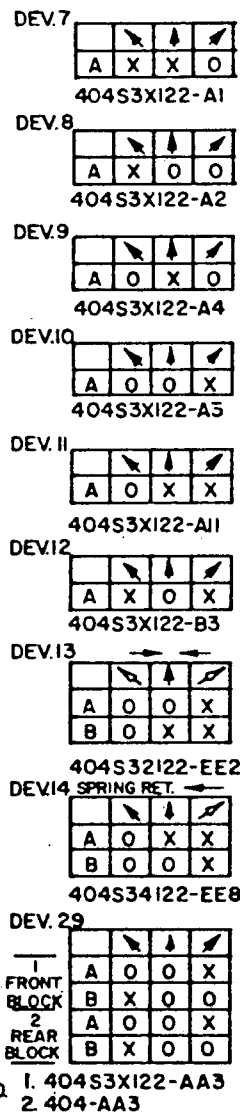
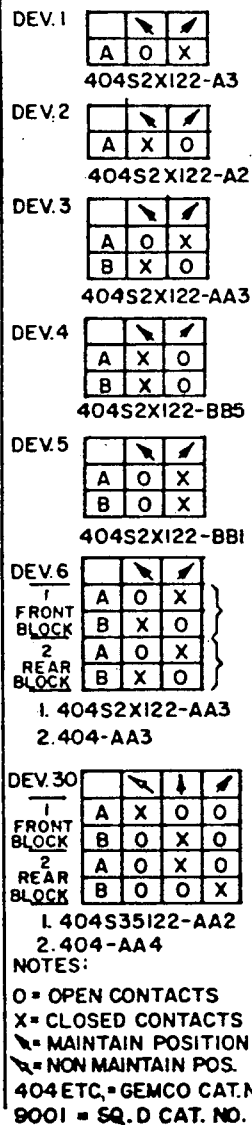
Appr

DRAWING TITLE: Control
Wiring Diagram

DRAWING NO. B-190628

SHEET NO. 40

Rev 3



CP&L
Carolina Power & Light Co.
H.B. ROBINSON S.E. PLANT
UNIT - NO. 2
Hartsville, South Carolina

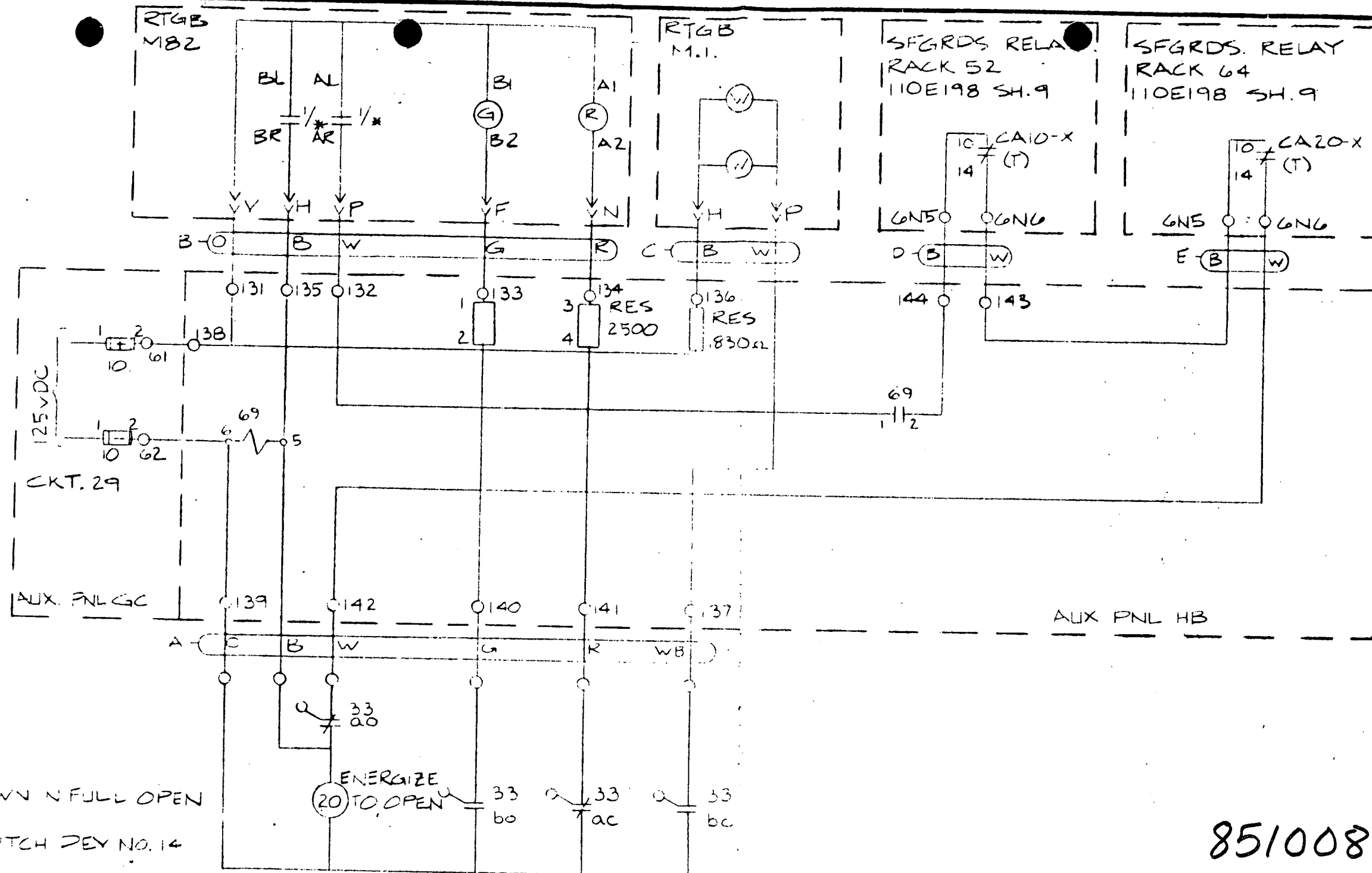
VENDOR DRAWING NO.
5008432

DRAWING TITLE: Control
Wiring Diagram
DRAWING NO. B-190628
SHEET NO. 37 Rev 5

REV	DATE	BY	APPROVED	REV	DATE	BY	APPROVED
5	10-10-85	DM	DM	1	10-10-85	DM	DM
4	10-10-85	DM	DM	2	10-10-85	DM	DM
3	10-10-85	DM	DM	3	10-10-85	DM	DM
2	10-10-85	DM	DM	4	10-10-85	DM	DM
1	10-10-85	DM	DM	5	10-10-85	DM	DM

INFO ONLY
SEP 10 1985

SWITCH DEVELOPMENT



TI
APERTURE
CARD

Also Available On
Aperture Card

8510080455-01

FOR INFORMATION ONLY

AUG 9 1985

EXCESS LETDOWN HX.
OUTLET ISOL. VA. 739

7	10/11/85	13m	11/1
6	10/11/85	13m	11/1
5	10/11/85	13m	11/1

REV	DATE	BY	APPROVED	REV	DATE	BY	APPROVED	REV	DATE	BY	APPROVED
1				2				3			
4				5				6			
7				8				9			
10				11				12			
13				14				15			
16				17				18			
19				20				21			
22				23				24			
25				26				27			
28				29				30			
31				32				33			
34				35				36			
37				38				39			
40				41				42			
43				44				45			
46				47				48			
49				50				51			
52				53				54			
55				56				57			
58				59				60			
61				62				63			
64				65				66			
67				68				69			
70				71				72			
73				74				75			
76				77				78			
79				80				81			
82				83				84			
85				86				87			
88				89				90			
91				92				93			
94				95				96			
97				98				99			
100				101				102			

7 REV PER DCR 84.577
REFERENCE

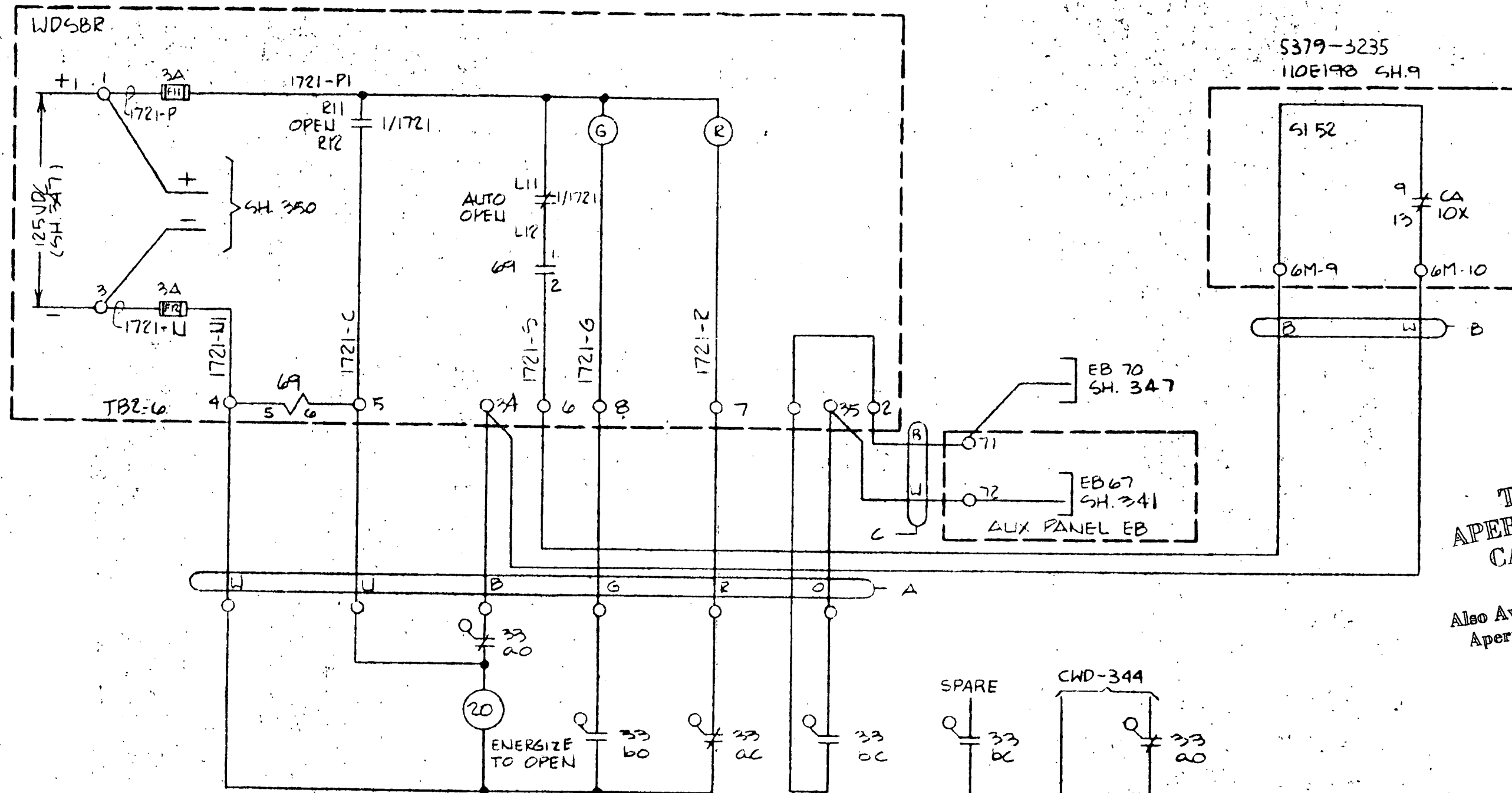
VENDOR DRAWING NO
500B452

Desn	W	Scale	NONE
Drn	EDS	Date	2-5-82
Ch	RSM		
Appv	TH		

CP&L
Carolina Power & Light Co
HB ROBINSON SE PLANT
UNIT- NO 2
Hartsville, South Carolina

DRAWING TITLE
CONTROL WIRING
DIAGRAM
DRAWING NO B-190628

SHEET NO 29 Rev 7



TI
APERTURE
CARD

Also Available On
Aperture Card

NOTES:
VALVE SHOWN IN FULL OPEN POSITION
1/1721 DEV. 5. DET. D. SHEET 40
CAIOX-DWG. 110E198 SHEET 9

FOR INFORMATION ONLY

AUG 9 1985

REACTOR COOLANT DRAIN PUMP
DISCHARGE VALVE 1721

8510080455-03

REV	DATE	BY	APPROVED	REV	DATE	BY	APPROVED
1	1/15/85	RSM		10	4/15/85	RSM	
2	2/15/85	RSM		11	4/15/85	RSM	
3	3/15/85	RSM		12	4/15/85	RSM	
4	4/15/85	RSM		13	4/15/85	RSM	
5	5/15/85	RSM		14	4/15/85	RSM	
6	6/15/85	RSM		15	4/15/85	RSM	
7	7/15/85	RSM		16	4/15/85	RSM	
8	8/15/85	RSM		17	4/15/85	RSM	
9	9/15/85	RSM		18	4/15/85	RSM	
10	10/15/85	RSM		19	4/15/85	RSM	
11	11/15/85	RSM		20	4/15/85	RSM	
12	12/15/85	RSM		21	4/15/85	RSM	
13	1/15/86	RSM		22	4/15/86	RSM	
14	2/15/86	RSM		23	4/15/86	RSM	
15	3/15/86	RSM		24	4/15/86	RSM	
16	4/15/86	RSM		25	4/15/86	RSM	
17	5/15/86	RSM		26	4/15/86	RSM	
18	6/15/86	RSM		27	4/15/86	RSM	
19	7/15/86	RSM		28	4/15/86	RSM	
20	8/15/86	RSM		29	4/15/86	RSM	
21	9/15/86	RSM		30	4/15/86	RSM	
22	10/15/86	RSM		31	4/15/86	RSM	
23	11/15/86	RSM		32	4/15/86	RSM	
24	12/15/86	RSM		33	4/15/86	RSM	
25	1/15/87	RSM		34	4/15/87	RSM	
26	2/15/87	RSM		35	4/15/87	RSM	
27	3/15/87	RSM		36	4/15/87	RSM	
28	4/15/87	RSM		37	4/15/87	RSM	
29	5/15/87	RSM		38	4/15/87	RSM	
30	6/15/87	RSM		39	4/15/87	RSM	
31	7/15/87	RSM		40	4/15/87	RSM	
32	8/15/87	RSM		41	4/15/87	RSM	
33	9/15/87	RSM		42	4/15/87	RSM	
34	10/15/87	RSM		43	4/15/87	RSM	
35	11/15/87	RSM		44	4/15/87	RSM	
36	12/15/87	RSM		45	4/15/87	RSM	
37	1/15/88	RSM		46	4/15/88	RSM	
38	2/15/88	RSM		47	4/15/88	RSM	
39	3/15/88	RSM		48	4/15/88	RSM	
40	4/15/88	RSM		49	4/15/88	RSM	
41	5/15/88	RSM		50	4/15/88	RSM	
42	6/15/88	RSM		51	4/15/88	RSM	
43	7/15/88	RSM		52	4/15/88	RSM	
44	8/15/88	RSM		53	4/15/88	RSM	
45	9/15/88	RSM		54	4/15/88	RSM	
46	10/15/88	RSM		55	4/15/88	RSM	
47	11/15/88	RSM		56	4/15/88	RSM	
48	12/15/88	RSM		57	4/15/88	RSM	
49	1/15/89	RSM		58	4/15/89	RSM	
50	2/15/89	RSM		59	4/15/89	RSM	
51	3/15/89	RSM		60	4/15/89	RSM	
52	4/15/89	RSM		61	4/15/89	RSM	
53	5/15/89	RSM		62	4/15/89	RSM	
54	6/15/89	RSM		63	4/15/89	RSM	
55	7/15/89	RSM		64	4/15/89	RSM	
56	8/15/89	RSM		65	4/15/89	RSM	
57	9/15/89	RSM		66	4/15/89	RSM	
58	10/15/89	RSM		67	4/15/89	RSM	
59	11/15/89	RSM		68	4/15/89	RSM	
60	12/15/89	RSM		69	4/15/89	RSM	
61	1/15/90	RSM		70	4/15/90	RSM	
62	2/15/90	RSM		71	4/15/90	RSM	
63	3/15/90	RSM		72	4/15/90	RSM	
64	4/15/90	RSM		73	4/15/90	RSM	
65	5/15/90	RSM		74	4/15/90	RSM	
66	6/15/90	RSM		75	4/15/90	RSM	
67	7/15/90	RSM		76	4/15/90	RSM	
68	8/15/90	RSM		77	4/15/90	RSM	
69	9/15/90	RSM		78	4/15/90	RSM	
70	10/15/90	RSM		79	4/15/90	RSM	
71	11/15/90	RSM		80	4/15/90	RSM	
72	12/15/90	RSM		81	4/15/90	RSM	
73	1/15/91	RSM		82	4/15/91	RSM	
74	2/15/91	RSM		83	4/15/91	RSM	
75	3/15/91	RSM		84	4/15/91	RSM	
76	4/15/91	RSM		85	4/15/91	RSM	
77	5/15/91	RSM		86	4/15/91	RSM	
78	6/15/91	RSM		87	4/15/91	RSM	
79	7/15/91	RSM		88	4/15/91	RSM	
80	8/15/91	RSM		89	4/15/91	RSM	
81	9/15/91	RSM		90	4/15/91	RSM	
82	10/15/91	RSM		91	4/15/91	RSM	
83	11/15/91	RSM		92	4/15/91	RSM	
84	12/15/91	RSM		93	4/15/91	RSM	
85	1/15/92	RSM		94	4/15/92	RSM	
86	2/15/92	RSM		95	4/15/92	RSM	
87	3/15/92	RSM		96	4/15/92	RSM	
88	4/15/92	RSM		97	4/15/92	RSM	
89	5/15/92	RSM		98	4/15/92	RSM	
90	6/15/92	RSM		99	4/15/92	RSM	
91	7/15/92	RSM		100	4/15/92	RSM	
92	8/15/92	RSM					
93	9/15/92	RSM					
94	10/15/92	RSM					
95	11/15/92	RSM					
96	12/15/92	RSM					
97	1/15/93	RSM					
98	2/15/93	RSM					
99	3/15/93	RSM					
100	4/15/93	RSM					

NOTES

NOTES

11 DCR-85-561
10 DCR No. 84-302

11 DCR-85-561
10 DCR No. 84-302

VENDOR DRAWING NO.
5008452

Design Scale NONE
Drawn by C.H. Date 2/10/82
Ch RSM
Appr

CP&L
Carolina Power & Light Co
H.B ROBINSON SE PLANT
UNIT- NO.2
Hartsville, South Carolina

DRAWING TITLE
CONTROL WIRING
DIAGRAM
DRAWING NO B-190628
SHEET NO 346 Rev 11