

327BYP  
KEYLOCK BYPASS  
SWITCH ON EACH LOAD  
CENTER SUBPANEL

REFERENCE 5613-E-2B  
SHEETS 9A, 9A2, 9B AND 9B2  
BYPASS SWITCH OPERATION

1. TO BYPASS CHANNEL 1 U.V. PROTECTION, TURN THE KEYLOCK BYPASS SWITCH POSITION TO "1". THE FOLLOWING SHOULD OCCUR:  
THE WHITE LAMP ABOVE THE TEST SWITCH 327TTC SHOULD EXTINGUISH TO INDICATE THAT THE SYSTEM IS IN AN ABNORMAL OPERATIONAL MODE.
2. TURN THE SWITCH TO POSITION "N" TO RETURN THE BYPASSED U.V. CHANNEL BACK INTO OPERATION. THE FOLLOWING SHOULD OCCUR:  
THE WHITE LAMP ABOVE THE TEST SWITCH 327TTC SHOULD GLOW TO INDICATE THAT THE SYSTEM IS BACK IN THE NORMAL OPERATIONAL MODE.
3. TO BYPASS CHANNEL 2 U.V. PROTECTION, TURN THE KEYLOCK BYPASS SWITCH POSITION TO "2". THE SAME INDICATIONS AS IN #1 ABOVE SHALL OCCUR.

U.V. TEST NORMAL

327TTC  
KEYLOCK TEST  
SWITCH ON EACH LOAD  
CENTER SUBPANEL

REFERENCE 5613-E-2B  
SHEETS 9A, 9A2, 9B, 9B2, 9C, 13A, 13B, 13C AND 13D  
TEST SWITCH OPERATION

1. TURN THE KEYLOCK SWITCH POSITION TO "1". THE FOLLOWING SHOULD OCCUR:  
A. THE WHITE LIGHT SHOULD EXTINGUISH TO INDICATE THAT THE SYSTEM IS IN AN ABNORMAL OPERATIONAL MODE.  
B. THE AMBER LAMP SHOULD GLOW, AFTER APPROXIMATELY 60 SECONDS, TO INDICATE CHANNEL 1 RELAY 327I HAS TESTED SUCCESSFULLY.
2. TURN THE SWITCH TO POSITION "12". THE FOLLOWING SHOULD OCCUR:  
A. THE WHITE LAMP SHOULD REMAIN OFF TO INDICATE THAT THE SYSTEM IS STILL IN THE TEST MODE.  
B. THE AMBER LAMP SHOULD EXTINGUISH THEN GLOW, AFTER APPROXIMATELY 3 SECONDS, TO INDICATE CHANNEL 1 RELAY 327T HAS TESTED SUCCESSFULLY.
3. RETURN SWITCH TO THE NORMAL POSITION. THE FOLLOWING SHOULD OCCUR:  
WHITE LAMP SHOULD GLOW TO INDICATE THAT THE SYSTEM IS BACK IN THE NORMAL MODE.
4. TURN THE KEYLOCK SWITCH POSITION TO "21". THE FOLLOWING SHOULD OCCUR:  
A. THE WHITE LIGHT SHOULD EXTINGUISH TO INDICATE THAT THE SYSTEM IS IN AN ABNORMAL OPERATIONAL MODE.  
B. THE AMBER LAMP SHOULD GLOW, AFTER APPROXIMATELY 60 SECONDS, TO INDICATE CHANNEL 2 RELAY 327I HAS TESTED SUCCESSFULLY.
5. TURN THE SWITCH TO POSITION "22". THE FOLLOWING SHOULD OCCUR:  
A. THE WHITE LAMP SHOULD REMAIN OFF TO INDICATE THAT THE SYSTEM IS STILL IN THE TEST MODE.  
B. THE AMBER LAMP SHOULD EXTINGUISH THEN GLOW, AFTER APPROXIMATELY 3 SECONDS, TO INDICATE CHANNEL 2 RELAY 327T HAS TESTED SUCCESSFULLY.
6. RETURN SWITCH TO THE NORMAL POSITION. THE FOLLOWING SHOULD OCCUR:  
THE WHITE LAMP SHOULD GLOW TO INDICATE THAT THE SYSTEM IS BACK IN THE NORMAL MODE.
7. REPORT ALL TEST DEVIATIONS OR ABNORMAL LAMP INDICATIONS

TEST SWITCH OPERATION

1. AT EACH LOAD CENTER PANEL, TURN THE KEYLOCK SWITCH POSITION TO "1". THE FOLLOWING SHOULD OCCUR:  
A. THE GREEN LAMP SHOULD EXTINGUISH TO INDICATE THAT THE CIRCUIT IS NOT IN THE READY STATE TO INDICATE STRIPPING  
B. ONE AMBER LAMP SHOULD ALSO EXTINGUISH TO INDICATE THAT POTENTIAL TO ONE U.V. COIL HAS BEEN REMOVED BY TEST SWITCH OPERATION  
C. THE RED LAMP SHOULD GLOW TO INDICATE A SUCCESSFUL TEST  
D. RELEASE SWITCH NORMAL. TURN TO POSITION "2" TO TEST THE OTHER U.V. CIRCUIT

2. NORMALLY THE GREEN AND BOTH AMBER LAMPS SHOULD BE LIT - THE WHITE LAMP IS NOT USED

3. REPORT ALL TEST DEVIATIONS OR ABNORMAL LAMP INDICATIONS

- NOTES:
1. 4KV BUSES B AND LOAD CENTERS B & D HAVE SIMILAR SCHEMES
  2. LOAD CENTER SUPPLY BREAKERS ARE INCLUDED IN THE LOGIC SCHEME TO PERMIT DE-ENERGIZING LOAD CENTERS FOR MAINTENANCE
  3. THE TIME DELAY LAMP ACTION IS TO PROTECT 480 VOL. MOTORS FROM DAMAGE DUE TO UNDERVOLTAGE
  4. UNDERVOLTAGE CONCURRENT WITH S.I. SIGNAL INITIATES STRIPPING IN ORDER TO OBTAIN VOLTAGE FROM THE DG FOR SAFETY RELATED EQUIPMENT
  5. THIS LOGIC DIAGRAM REPRESENTS THE CONCEPTUAL LOGIC FOR SEQUENCER BUS STRIPPING/BUS CLEAR FUNCTION FOR SEQUENCER 3A AND IS TYPICAL FOR SEQUENCER 3B.
  6. THE CONCEPTUAL LOGIC DIAGRAM MAKES REFERENCE TO SAFETY INJECTION AT UNIT 3 TRAIN B. ALTHOUGH THIS SIGNAL HAS BEEN PROGRAMMED, THE FIELD INPUT HAS NOT BEEN WIRED TO THE SEQUENCER. THEREFORE THE LOGIC ASSOCIATED WITH SI 3B WILL NOT BE EXECUTED AS PART OF THE PROCESS LOGIC OF SEQUENCER 3A. THIS IS SIMILAR IN THE OTHER SEQUENCER WHERE THE SAME UNIT OPPOSITE TRAIN SI SIGNAL HAS NOT BEEN CONNECTED (I.E. FOR SEQUENCER 3B, SI 3A IS NOT CONNECTED).
  7. THE BYPASS SWITCH IS USED TO BYPASS EITHER CHANNEL 1 OR CHANNEL 2 IN CASE OF AN U.V. RELAY FAILURE. TURNING THE SWITCH TO POSITION 1 BYPASSES CHANNEL 1 U.V. PROTECTION. TURNING THE SWITCH TO POSITION 2 BYPASSES CHANNEL 2 U.V. PROTECTION.

127X1 - RELAYS

NO	OUTPUT FUNCTION	BKR NO
3A1	TRIP SU XFMR BKR	3AA05
	TRIP AUX XFMR BKR	3AA02
	TRIP LC3A FOR BKR	3AA08
	TRIP LC3C FOR BKR	3AA14
	TRIP COW PP 3A	3AA12
3A2	TRIP SI PP 3A	3AA13
	TRIP RHR PP 3A	3AA15
	TRIP ICW PP 3A	3AA19
	TRIP TPOW PP 3A	3AA11
	FAIL DET LC 3H	30303
3A3	TRIP PRZ HTR B/U 3A	30107
	TRIP ROD DRIVE M-G SET	30108
	TRIP SPENT FUEL PIT PP'S	30309
	TRIP SU XFMR BKR OPP UNIT	3AA22
	TRIP FIRE PP P39B	30305
3A4	TRIP TURB AUX OIL PP 3P32	30312
	TRIP CONT SP PP 3A	30109
	TRIP CHRG PP 3A	30105
3A5	TRIP CHRG PP 3C	35008

127X2 - RELAYS

NO	OUTPUT FUNCTION	BKR NO
3A1	TRIP P 3A1	3AA18
	TRIP P 3A2	3AA18
	BLOCK AUTOSTART TURB	30312
	AUX OIL PP 3P32	3AA12
3A2	TRIP COND PP 3A	3AA21
	TRIP RHR PP 3A	3AA20
	START EDG 3A	30524
	BLOCK START INSTR AIR COMP 3C1	3AA20
	BLOCKS TRIP EDG 3A BKR	30307
3A3	TRIP PRZ HTR 3A	30307
	TRIP MCC W-3A BKR	30305
	BLOCK AUTOSTART BA	30725
	XFER PP 3A	30717
3A4	TRIP SG FW PP 3A	3AA03
	TRIP RO PP 3A	3AA01
	AFW PP AUTO ST CKT	30510
	BLOCK AUTOSTART TURN GEAR OIL PP 3P31	30512
	BLOCK AUTOSTART AUTO TURN GEAR	30533
	BEARING LIFT PP 3P40	
3A5	TRIP HTR DRAIN PP 3A	3AA07
	FAIL DET LC 3H	30303

127X3 - RELAYS

NO	OUTPUT FUNCTION	BKR NO
3A1	TRIP COW PP 3C	3AD04
	TRIP ICW PP 3C	3AD05

127X4 - RELAYS

NO	OUTPUT FUNCTION	BKR NO
3A1	BLOCK AUTOSTART COW PP 3C	304

127X5 - RELAYS

NO	OUTPUT FUNCTION	BKR NO
3A1	SPARE	

127X6 - RELAYS

NO	OUTPUT FUNCTION	BKR NO
3A1	TRIP STBY AIR COMP C	30825

127X1 - RELAYS

MOMENTARY TRIP SIGNAL  
SIGNAL DISAPPEARS AFTER  
EDG ENERGIZES

127X2 - RELAYS

MAINTAINED TRIP SIGNAL  
SIGNAL IS MAINTAINED AS  
LONG AS THE S.U. XFMR  
BREAKER IS OPEN

127X3 - RELAYS

MOMENTARY TRIP SIGNAL  
PRESENT IF BUS 3D IS  
ALIGNED TO L. A. SIGNAL  
DISAPPEARS AFTER EDG  
ENERGIZES 4KV BUS

127X4 - RELAYS

MAINTAINED TRIP SIGNAL  
PRESENT IF BUS 3D IS  
ALIGNED TO BUS 3A. SIGNAL  
IS MAINTAINED AS LONG AS  
THE S.U. XFMR BREAKER  
IS OPEN

127X5 - RELAYS

MOMENTARY TRIP SIGNAL  
PRESENT IF C 3H IS  
ALIGNED TO C 3C. SIGNAL  
DISAPPEARS AFTER EDG  
ENERGIZES 4KV BUS

127X6 - RELAYS

MAINTAINED TRIP SIGNAL  
PRESENT IF LC 3H IS  
ALIGNED TO LC 3C. L  
IS MAINTAINED AS LONG AS  
THE S.U. XFMR BREAKER  
IS OPEN

127X1 - RELAYS

MOMENTARY TRIP SIGNAL  
SIGNAL DISAPPEARS AFTER  
EDG ENERGIZES

127X2 - RELAYS

MAINTAINED TRIP SIGNAL  
SIGNAL IS MAINTAINED AS  
LONG AS THE S.U. XFMR  
BREAKER IS OPEN

127X3 - RELAYS

MOMENTARY TRIP SIGNAL  
PRESENT IF BUS 3D IS  
ALIGNED TO L. A. SIGNAL  
DISAPPEARS AFTER EDG  
ENERGIZES 4KV BUS

127X4 - RELAYS

MAINTAINED TRIP SIGNAL  
PRESENT IF BUS 3D IS  
ALIGNED TO BUS 3A. SIGNAL  
IS MAINTAINED AS LONG AS  
THE S.U. XFMR BREAKER  
IS OPEN

127X5 - RELAYS

MOMENTARY TRIP SIGNAL  
PRESENT IF C 3H IS  
ALIGNED TO C 3C. SIGNAL  
DISAPPEARS AFTER EDG  
ENERGIZES 4KV BUS

127X6 - RELAYS

MAINTAINED TRIP SIGNAL  
PRESENT IF LC 3H IS  
ALIGNED TO LC 3C. L  
IS MAINTAINED AS LONG AS  
THE S.U. XFMR BREAKER  
IS OPEN

127X1 - RELAYS

MOMENTARY TRIP SIGNAL  
SIGNAL DISAPPEARS AFTER  
EDG ENERGIZES

127X2 - RELAYS

MAINTAINED TRIP SIGNAL  
SIGNAL IS MAINTAINED AS  
LONG AS THE S.U. XFMR  
BREAKER IS OPEN

127X3 - RELAYS

MOMENTARY TRIP SIGNAL  
PRESENT IF BUS 3D IS  
ALIGNED TO L. A. SIGNAL  
DISAPPEARS AFTER EDG  
ENERGIZES 4KV BUS

127X4 - RELAYS

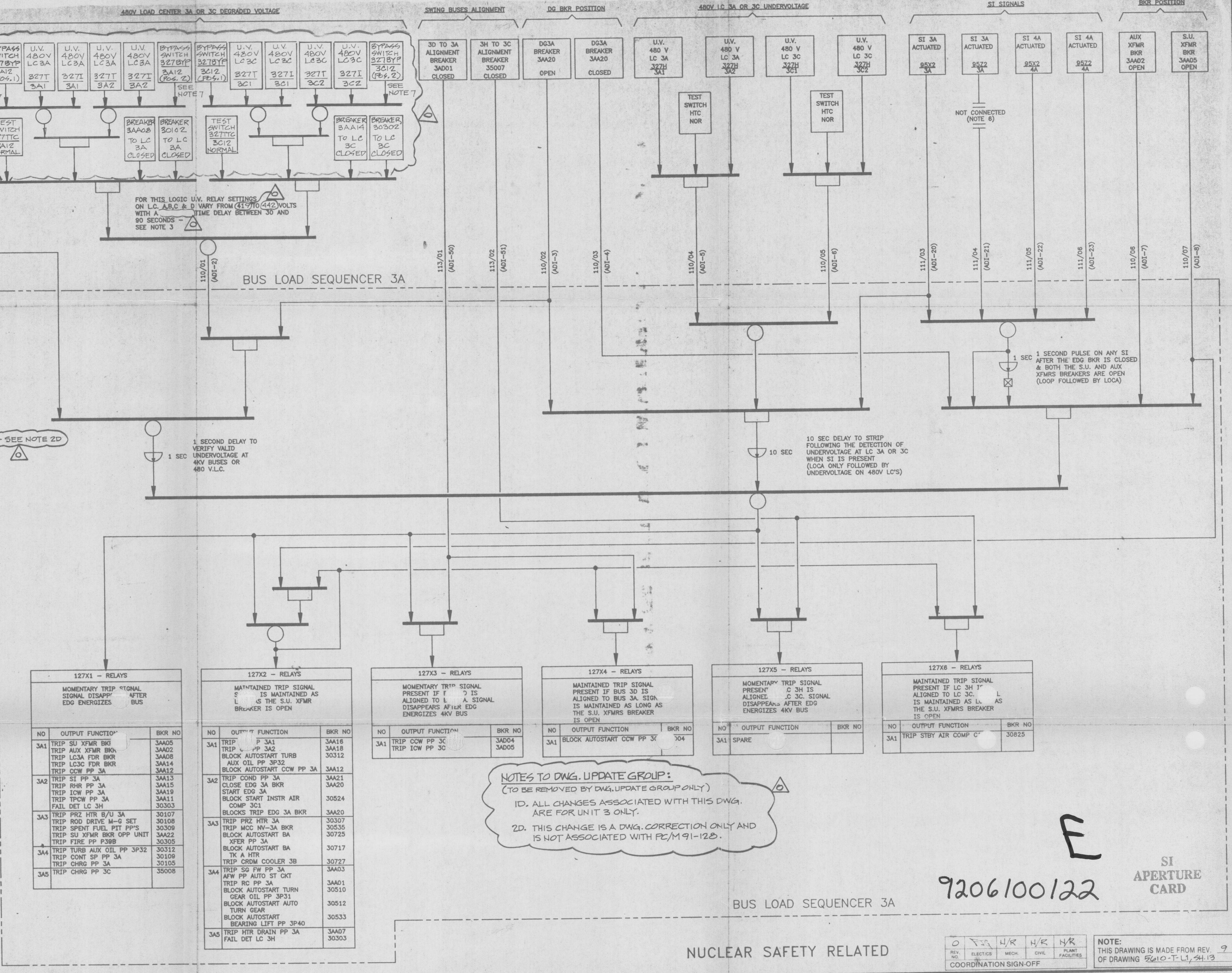
MAINTAINED TRIP SIGNAL  
PRESENT IF BUS 3D IS  
ALIGNED TO BUS 3A. SIGNAL  
IS MAINTAINED AS LONG AS  
THE S.U. XFMR BREAKER  
IS OPEN

127X5 - RELAYS

MOMENTARY TRIP SIGNAL  
PRESENT IF C 3H IS  
ALIGNED TO C 3C. SIGNAL  
DISAPPEARS AFTER EDG  
ENERGIZES 4KV BUS

127X6 - RELAYS

MAINTAINED TRIP SIGNAL  
PRESENT IF LC 3H IS  
ALIGNED TO LC 3C. L  
IS MAINTAINED AS LONG AS  
THE S.U. XFMR BREAKER  
IS OPEN



NOTES TO DWG. UPDATE GROUP:  
(TO BE REMOVED BY DWG. UPDATE GROUP ONLY)

1D. ALL CHANGES ASSOCIATED WITH THIS DWG. ARE FOR UNIT 3 ONLY.

2D. THIS CHANGE IS A DWG. CORRECTION ONLY AND IS NOT ASSOCIATED WITH PC/M91-128.

9206100122

E

SI  
APERTURE  
CARD

NUCLEAR SAFETY RELATED

COORDINATION SIGN-OFF

REV.	NO.	ELECTRICAL	MECH.	CIVIL	PLANT	FACTORIES
0						

NOTE:  
THIS DRAWING IS MADE FROM REV. 9  
OF DRAWING 5610-T-L1, 54-13



TURKEY POINT NUCLEAR UNIT 3

LOGIC DIAGRAM

LOSS OF VOLTAGE  
AND  
BUS STRIPPING

POD

DRAWING NUMBER

5610-T-L1

SHEET 13/91-128

SYS  
-  
REV  
O

JOB NO.  
21701-523

PC/M91-128

REV 0

DATE 3-26-92

ISSUED AS POD FOR PC/M91-128.

REVISION

RRZ RMW FSG CW

BY CH APP APP