

COL-1A

Electrical Relay Positions Following
 a Trip and Prior to Startup

Check Off List

COL Completed

Date	Trip	Startup
Time _____	_____	_____
Comments: _____		

SWS _____		

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 Reviewed
M. Finch #566 5/25/82
 SNSC Review / Date
J. Curry 6/5/82
 Approved / Date

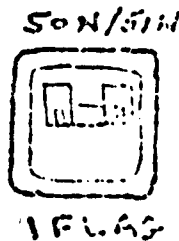
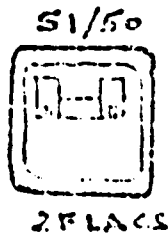
Reference Drawings: None

- NOTE: 1. This COL should be done immediately following a unit trip and completed prior to the reactor going critical upon recovering from the trip.
2. Use a check to indicate those relay flags which are up. For relays with more than one flag additional lines are provided in the same pattern as flags exist in relay, looking left to right. An example is given below:
3. Complete the relay operations report.

Example: Section 3.6 23 Circulator

	Trip	Inits.	Startup	Inits.
49/50	✓	✓	gcr	_____
51/50 Overcurrent Phase/Phase	✓	✓	gcr	_____
51N/50N Overcurrent Ground	_____	✓	gcr	_____

Looking at the relays you would see:



831170154 B31104
 PDR ADDCK 05000247
 PDR

Electrical Relay Positions

	<u>Trip</u>	<u>Initials</u>	<u>Startup Initials</u>
<u>1.0 Central Control Room</u>			
<u>1.1 Back of Unit II Flight Panel FAF</u>			
TR 1 Target B.U. Direct Trip from Buchanan	_____	_____	_____
TR 1 Target Primary Direct Trip from Buchanan	_____	_____	_____
87/T21 A \emptyset Main Trans. Diff.	_____	_____	_____
87/T21 B \emptyset Main Trans. Diff.	_____	_____	_____
87/T21 C \emptyset Main Trans. Diff.	_____	_____	_____
87/T22 A \emptyset Main Trans. Diff.	_____	_____	_____
87/T22 B \emptyset Main Trans. Diff.	_____	_____	_____
87/T22 C \emptyset Main Trans. Diff.	_____	_____	_____
87/GT A \emptyset Overall Diff.	_____	_____	_____
87/GT B \emptyset Overall Diff.	_____	_____	_____
87/GT C \emptyset Overall Diff.	_____	_____	_____
87/UT A \emptyset UAT Diff.	_____	_____	_____
87/UT B \emptyset UAT Diff.	_____	_____	_____
87/UT C \emptyset UAT Diff.	_____	_____	_____
87/G Gen. Diff.	_____	_____	_____
40 Loss of Field	_____	_____	_____
60A Voltage Balance	_____	_____	_____
51/NT Main Trans. Neut. O.C.	_____	_____	_____
51N/UT Neut. O.C.	_____	_____	_____
59N Gen. Neut. O.C.	_____	_____	_____
46 Neg. Sequence	_____	_____	_____
62/UT Unit Aux. B.U. Timer	_____	_____	_____
51/UT A \emptyset Overcurrent	_____	_____	_____
51/UT B \emptyset Overcurrent	_____	_____	_____
51/UT C \emptyset Overcurrent	_____	_____	_____
Thrust Bearing Drum Level	_____	_____	_____
<u>1.2 Back of Unit II Flight Panel FCF</u>			
87 ST A \emptyset SAT. Diff.	_____	_____	_____
87 ST B \emptyset SAT. Diff.	_____	_____	_____
87 ST C \emptyset SAT. Diff.	_____	_____	_____
87 L2/345 P.W. Diff.	_____	_____	_____
32 NBU/345 B.U. Diff. Grd.	_____	_____	_____
87 L1/345 P.W. Diff.	_____	_____	_____
51 ST A \emptyset SAT. O.C.	_____	_____	_____
51 ST B \emptyset SAT. O.C.	_____	_____	_____
51 ST C \emptyset SAT. O.C.	_____	_____	_____
85L2/345 FWM & TT	_____	_____	_____
85L1/345 FWM & TT	_____	_____	_____
Station Aux. Trans. Neut. O.C.	_____	_____	_____
32 NP Pri. Dir. Grd.	_____	_____	_____
50 BU/345 BU & Fault	_____	_____	_____
50NP/345 Pri. \emptyset Fault.	_____	_____	_____
50NP/345 Pri. Grd. Fault	_____	_____	_____

	<u>Trip</u>	<u>Initials</u>	<u>Startup</u>	<u>Initials</u>
62 STP Sta. Trans. B.U. Timer				
62 T1-BT4-5 Bus 5 B.U. Timer				
1.3 <u>Rear of Flight Panel FDF</u>				
87 L2/138 P.W. Diff.				
87 L1/138 P.W. Diff.				
85 L2/138 PWM & T.T.				
85 L1/138 PWM & T.T.				
138KV Line B.U. P.H. Fault Det.				
138KV Line PRIM P.H. Fault Det.				
138KV Line B.U. Ground Fault Det.				
138KV Line Prim. Ground Fault Det.				
Unit Aux. Tap Changer Position	N		N	
Unit Aux. Tap Changer	OFF		OFF	
Sta. Aux. Tap Changer Position	N		N	
Sta. Aux. Tap Changer	OFF		OFF	
1.4 <u>Power Failure System Sequence Cabinets</u>				
1.4.1 Cabinet #1				
Stripping 27-1-5A				
Stripping 27-1-2A				
Stripping 27-2-6A				
Stripping 27-2-3A				
Black Out 27-51				
Black Out 27-52				
Black Out 27-53				
1.4.2 Cabinet #2				
Stripping 27-2-5A				
Stripping 27-2-2A				
Stripping 27-1-6A				
Stripping 27-1-3A				
Black Out 27-61				
Black Out 27-62				
Black Out 27-63				

2.0 Exciter Breaker 33'Elev.

Dev. 76 T1X Trip, Dev. 76 T2X Trip
 Dev. 27X Trip-Damping Bias Trip

3.0 6.9 Switchgear Room 15'Elev.

3.1 SS5 - Station Service Trans.
 51/50 Ⓞ A Overcurrent
 51/50 Ⓞ B Overcurrent
 51/50 Ⓞ C Overcurrent

3.2 25 Circulator
 49/50

51/50 Overcurrent Phase/Phase
 51N/50N Overcurrent Ground

3.3 ST5 - Station Trans. Supply
 62 ST5
 51 ST5 Ⓞ A
 51 ST5 Ⓞ B
 51 ST5 Ⓞ C
 51N ST5

3.4 Aux. Unit 2
 27-2A
 27-2
 81-2

3.5 SS2 - Station Service Trans.
 51/50 Ⓞ A Overcurrent
 51/50 Ⓞ B Overcurrent
 51/50 Ⓞ C Overcurrent

3.6 23 Circulator
 49/50

51/50 Overcurrent Phase/Phase
 51N/50N Overcurrent Ground

3.7 22 Condensate Pump
 49/50

51/50 Overcurrent Phase/Phase
 51N/50N Overcurrent Ground

3.8 24 RCP
 49/50

51/50 Overcurrent Phase/Phase
 51N/50N Overcurrent Ground

3.9 UT2 Unit Trans. Supply Bus 2
 62 UT2
 51 UT2 Ⓞ A Overcurrent
 51 UT2 Ⓞ B Overcurrent
 51 UT2 Ⓞ C Overcurrent
 51N UT2

		Trip	Initials	Startup	Initials
3.18	23 RCP				
	49/50				
	51/50 Overcurrent Phase/Phase				
	51N/50N Overcurrent Ground				
3.19	Aux. Unit 3				
	27-3A				
	27-3				
	81-3				
3.20	UT-3 Unit Trans Supply Bus 3				
	62 UT3				
	51 UT3 ∅ A Overcurrent				
	51 UT3 ∅ B Overcurrent				
	51 UT3 ∅ C Overcurrent				
	51 NUT3				
3.21	UT-4 Unit Trans Supply Bus 4				
	62 UT4				
	51 UT4 ∅ A Overcurrent				
	51 UT4 ∅ B Overcurrent				
	51 UT4 ∅ C Overcurrent				
	51 NUT4				
3.22	22 RCP				
	49/50				
	51/50 Overcurrent Phase/Phase				
	51N/50N Overcurrent Ground				
3.23	23 Condensate Pump				
	49/50				
	51/50 Overcurrent Phase/Phase				
	51N/50N Overcurrent Ground				
3.24	24 Circulator				
	49/50				
	51/50 Overcurrent Phase/Phase				
	51N/50N Overcurrent Ground				
3.25	22 Heater Drain Pump				
	49/50				
	51/50 Overcurrent Phase/Phase				
	51N/50N Overcurrent Ground				

3.26 Aux. Unit 4

21-4
27-4
27-6
27-4A

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3.27 ST6 Station Trans. Supply Bus 6

62 ST6
51 ST6 ϕ A
51 ST6 ϕ B
51 ST6 ϕ C
51 NST6

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3.28 22 Circulator

49/50

51/50 Overcurrent Phase/Phase
51N/50N Overcurrent Ground

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3.29 SS6 Station Service Trans.

51/50 ϕ A Overcurrent
51/50 ϕ B Overcurrent
51/50 ϕ C Overcurrent

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

4.0 480 Volt Switchgear Room 15' Elev.

4.1 EPG8
27S1/3A
27S2/3A

_____	_____	_____	_____
_____	_____	_____	_____

4.2 EPG9
27S1/6A
27S2/6A

_____	_____	_____	_____
_____	_____	_____	_____

4.3 EPG7
27S1/5A
27S2/5A

_____	_____	_____	_____
_____	_____	_____	_____

4.4 EPG6
27S1/2A
27S2/2A

_____	_____	_____	_____
_____	_____	_____	_____

Appendix A