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A CIGARI PROCEDURE NO	MEER T. ENG . 90-14	UNIT ONE
TITLE Unit One Train B DLI	P 88 VITUODIO SEQUENCER	FUNCTIONAL REV O
ONE TIME USE ONLY:	YES X NO; IF NO, 7	TERMINATION DATE REAL
PURPOSE: This Proceed	luce to 11 Functional tea	+ the change made to
UnitOne Train B Se	BUENCIA ha DEPSE-VII	VOC TO
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COGNIZANT SUPERVISOR	Mile Aferta	DATE 3-27-91
DEPARTMENT MALAGER/SUP	r Mile Alerton	DATE 3-27-91
RB REVIEW (if require	d.)	TRANSPORT A TRANSPORT OF A CONTRACTOR
TEETING NO. 70-44	DATE 3/27/90	
		Resident Incomediation Application
ECOMMEND: () APPROVA	L () DISAPPROVAT	Normal - Annothing and the second
	- · / DIGNITAUTAL -	department Mgr./Sup
NREVIEWED SAFETY QUEST	TION INVOLVED: YES (	) NO (-)
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ENERAL MANAGER - MUCT	AD DY AND AND	
TSPOSTTION.	LAK PLANT (if require	<u>d)</u>
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DETERMINATION OF NEED FOR SAFETY EVALUATION SHEET & OF 2

Document 1D No. T-ENG-90-14 Rev. 0

SECTION 1.0

1.1 Description of proposed change, test, un experiment:

This procedure will functionally test the U/V RESET SWITCH, the remote U/V reset relay (K311), the D-G Brkr Fail To Close relay (K317), and the U/V Reset Enable relay (K306). The Train B 4160V Switchgear will be deenergized and the D-G output breaker will be locked out during the performance of this procedure. The Train B Sequencer will receive a U/V signal and will operate the sequencer output relays. This test will prove that the Sequencer can be manually reset by the U/V RESET SWITCH or relay K311 if the D-G output breaker does not close. It will also prove that the Sequencer cannot be reset by the U/V RESET SWITCH or relay K311 while the D-G output breaker is closed and the Sequencer is cycling.

1.2. Reason for proposed change, test, or experiment:

This procedure is being performed as a functional test for modifications made by DCP 88-V1N0070.

1.3 Does the proposed change involve a change to Technical Specifications? Ves No  ${\sf X}$ 

Explanation: . This is a functional test of modifications made in the reset logic of the Sequencer and does not require a change to the Technical Specifications. Tech. Spec. sections 3/4.3.2 and 4.8.1.1.2.h do not address testing of the sequencer with a de-energized buss.

Explanation: This procedure does not involve a change in the facility as described in FSAR sections 8.3.1.1.2.R or 8.3.1.1.3.F. The Sequencer is not discussed in this level of detail in the FSAR.

SHEET 2 of )

1.5 Does the proposed change involve a change in procedures as described in the FSAR? Yes No X

Explanation: This procedure does not involve a change in procedures as described in Section 8.3.1.1.3.H.3 or Chapter 13 of the FSAR.

not described in the FSAR? Yes No X

Explanation: This procedure does not involve a test or experiment not described in the FSAR. This procedure will cycle the Sequencer as in tests outlined in FSAP Sections 8.3.1.1.3.H.3.a and b except this test will not operate any major plant equipment due to buss 1BA03 being de-energized.

Evaluator Minhaef Flanke Date 3-27-90

mile Morton

3-27-90

If the proposed change involves a design modification (DCP, Temp Mod, Minor Departure From Devign (MDD), Section 2.0 must be completed.

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FIGURE 2

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### T-ENG-90-14 Rev 0

UNIT ONE TRAIN B DCP 88-V1N0070 SEQUENCER FUNCTIONAL TEST

D.W. HINES

Expiration Date: April 20, 1990

Bockloid Date: 3/27/90 Approval:

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This procedure will test the U/V RESET SWITCH and the remote U/V reset relay (K311) installed in Unit One Train B Sequencer. A Sequencer Operability Check along with this procedure will complete the functional test requirements of DCP 88-V1N0070 for Train B. The DG Brkr Fail To Close relay (K317) and the U/V Reset Enable relay (K306) will also be tested in this procedure.

- 2.0 PRECAUTIONS AND LIMITATIONS:
- 2.1 This test, once begun, shall be carried through to completion. If the test must be interrupted, then a detailed explanation of the interruption must be entered into the log.
- 2.2 Operator assistance should be obtained to operate equipment as required.
- 2.3 Observe all appropriate precautions and limitations in the plant operating procedures for the equipment operated during this test.
- 2.4 Prior to the start of the test, the Responsible Engineer shall review the Prerequisites and Initial Conditions, Section 4.0.
- 2.5 All procedural steps may be signed off by the Responsible Engineer, Shift Supervisor, or designated individual.
- 2.6 All switches and lights are located on the Unit One Train B Sequencer Test Panel unless otherwise stated.
- Train A 4160Vac (1AA02) is meeting the electrical 2.7 needs of Unit One. Train B 4160Vac (1BA03) switchgear will be de-energized during this procedure.
- Alarms generated during performance of this 2.8 procedure may be reset at the discretion of the Responsible Engineer.
- 2.9 Relay K311 may be removed to connect and disconnect the temporary power supply.

1.0 PURPOSE:

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- 3.0 MEASUREMENT AND TEST EQUIPMENT
- 3.1 Volt-ohm meter, Simpson model 260 or equivalent, for monitoring a K317 spare normally open contact. This meter will check the operation of K317 relay and will be referred to as relay K317 in this procedure.
- 3.2 Volt-ohm meter, Simpson model 260 or equivalent, for monitoring a K306 spare normally open contact. This meter will check the operation of K306 relay and will be referred to as relay K306 in this procedure.
- 3.3 Stop Watch. The stop watch will be used to check the approximate time of relay and light operatior.
- 3.4 A 48Vdc power supply to operate the remote U/V reset relay K306.
- 3.5 A switched jumper that will be used to simulate DG1B breaker (1BA0319) is closed.
- 4.0 PREREQUISITES OR INITIAL CONDITIONS:
- 4.1 The Responsible Engineer has reviewed Section 2.0
- 4.2 The Unit One Train B Sequencer is in normal operating mode.
- 4.3 The Diesel Generator Output Brkr, 1BA0319, is open.
- 4.4 Establish communications, using sound powered phones, from the Unit One Train B Sequencer panel to the control room.

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4.5 The Unit One Shift Supervisor has given permission to perform this test.

	S Signature	Date	Time
5.0 T	EST SECTION		
5.1 I	nitial Setup		
5.1.1	Connect a VOM acros open contact, 8 and	s a spare no 1 9, of rela	ormally y K317.
5.1.2	Connect a VOM acros contact, 4 and 5,	s a spare no of relay K30	ormally open 06.
			/
5.1.3	Set the DC voltage 48Vdc.	supply for	approximately
			/
5.1.4	Connect a 48Vdc sup across the coil, 6	ply, supply and 7, of r	turned off, celay K311.
Sect	tion 5.1 Complete		/
Sect	tion 5.1 Completes	ign	/
Sect	QUENCER TEST - U/V F AND DIESEL GENERAT	ign RESET WITH D OR 1B NOT RU	date E-ENERGIZED BUSS JNNING
Sect 5.2 SE 5.2.1	tion 5.1 Complete S QUENCER TEST - U/V F AND DIESEL GENERAT Place DG1B OUTPUT F PTL.	ign RESET WITH D OR 1B NOT RU BRKR (HS-1BA	date E-ENERGIZED BUSS JNNING 0319 at QEAB) into
Sect 5.2 SE 5.2.1	tion 5.1 Complete S QUENCER TEST - U/V F AND DIESEL GENERAT Place DG1B OUTPUT F PTL.	ign RESET WITH D OR 1B NOT RU BRKR (HS-1BA	date E-ENERGIZED BUSS JNNING 0319 at QEAB) into

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#### NOTE: THE FOLLOWING STEP WILL DE-ENERGIZE BUSS 1BA03.

5.2.3 Open the PRFF NORM INCM BRKR (1BA0301)

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5.2.4 Wait 60 seconds for time delay relays to operate.

5.2.5 Using the toggle switch located on the card in slot A4-2, reset the "3 UV in 2 hours" card. One of the lights on this card should illuminate after reset.

5.2.6 Verify relays K317 and K306 are energized.

5.2.7 Verify the UV RESET SWITCH is illuminated.

NOTE Step 5.2.11 will occur approximately 15 seconds after step 5.2.8 is performed. Start the stopwatch at step 5.2.8

5.2.8 Depress the UV RESET SWITCH.

5.2.9 Verify relays K317 and K306 de-energize.

5.2.10 Verify the UV RESET SWITCH is not illuminated.

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5.2.11 Verify relay K317 energizes approximately 15 seconds after the UV RESET SWITCH was depressed.

5.2.12 Verify relay K306 energizes and the UV RESET SWITCH illuminates approximately 60 seconds after the UV RESET SWITCH was depressed.

NOTE

Step 5.2.16 will occur approximately 15 seconds after step 5.2.13 is performed. Start the stopwatch at step 5.2.13.

5.2.13 Momentarily energize relay K311.

5.2.14 Verify relays K317 and K306 de-energize.

5.2.15 Verify the UV RESET SWITCH is not illuminated.

5.2.16 Verify relay K317 energizes approximately 15 seconds after relay K311 is energized.

5.2.17 Verify relay K306 energizes and the UV RESET SWITCH illuminates approximately 60 seconds after relay K311 is energized.

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5.2.18 Using the toggle switch located on the card in slot A4-2, reset the "3 UV in 2 hours" card. One of the lights on this card should illuminate after reset.

5.3 SEQUENCER TEST - U/V WILL NOT RESET WHILE SEQUENCER IS CYCLING

> NOTE The following steps must be performed before the Sequencer step timer completes the sequence steps (approximately 30 seconds). The sequence will begin when step 5.3.1 is performed.

5.3.1 Place a jumper from 1TB51-1 to 1TB51-3

5.3.2 Verify the Sequencer begins to sequence by observing the Elapsed Timer is running.

5.3.3 Depress the UV RESET SWITCH.

5.3.4 Verify that the Sequencer does not reset by observing the Elapsed Timer does not restart from 0.

5.3.5 Momentarily energize relay K311.

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5.3.6 Verify that the Sequencer does not reset by observing the Elapsed Timer does not restart from 0.

5.3.7 Remove the jumper from 1TB51-1 to 1TB51-3.

sign



Section 5.3 Complete



6.0 RESTORATION

6.1 Remove all test equipment.

1) VOM connected to relay K317

IVOR

2) VOM connected to relay K306



3) Power supply connected to relay K311



IVOR

6.2 Verify K311 is installed correctly.

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6.3 Inform the Unit One Shift Supervisor of the completion of this test and 1BA03 may be returned to service.

# 7.0 ACCEPTANCE CRITERIA

A Real Provide State

7.1 All steps have been completed satisfactorily.

TO: Muttorton	PRB COMMENT REVIEW SHEET	Provide and the
THRU:	PRB-90-44	Page of
The PRB has reviewed the attached proceed	lure and recommends approval with comments as noted	below Mandatory (N) compete

shall be incorporated prior to approval of the procedure. If not incorporated the procedure shall be resubmitted to the board. You have the responsibility to determine whether the Optional (0) comments should be included at this time, saved for later inclusion, or otherwise resolved. This procedure does not constitute an unreviewed safety question.

No.	Section	M/0	PRB Initials	Comments	Resolutions
1		M	JGA	Ensure TMods indicated in this	Pressbare agreed with
				procedure are in accordance	Sequences is in op
		ar sizes	0	WITH 00307-C	
2		OM-	JGA	When using VOM, should state The	Transformer
				model number or equivalent.	
3	to 5.2.8	M	GRF	Charge 5.2.9 to 52.8. Check of	To corporated
				other places in procedure.	
1.6					

Changes to this procedure other than those addressing the board's comments will require resubmittal to the board. Upon resolution of the above comments, the procedure should be forwarded to the General Manager for approval. Upon approval the procedure should be returned to the PRB Secretary for further processing.

Attachment

PRB Chairman WF Kitchen