

BIMONTHLY, STAGGERED BASIS,  
REACTOR TRIP BREAKER SHUNT AND  
UNDervOLTAGE TRIP INDEPENDENCE TEST - TRAIN A

A. STATEMENT OF APPLICABILITY:

The purpose of this procedure is to verify the operation of the shunt trip and the undervoltage trip of the Train A Reactor Trip Brkr and the Train B Reactor Trip Bypass Brkr in modes 1, 2, 3\*, 4\*, 5\* every 62 days and after maintenance or adjustment of the Reactor Trip Brkrs. Completion of the entire surveillance will insure the compliance with the Table 4.3-1 Note 11, 18 month Independent Verification of both undervoltage and shunt trips actuation requirements.

\* With the Reactor Trip Brkrs closed and the Control Rod Drive System capable of Rod withdrawal.

B. REFERENCES:

1. Technical Specifications 3.3.1.
2. Westinghouse Solid State Protection System Vendor's manual F-108.
3. 6/20 E-1-4030RD06
4. 6/20 E-1-4030RD07
5. 6/20 E-1-4208A
6. 6/20 E-1-4208B
7. 6/20 E-1-4030EF23
8. 6/20 E-1-4030EF29

C. PREREQUISITES:

1. Receive permission from the Shift Engineer or designated SRO licensed assistant prior to performing this surveillance by having the Data Package Cover Sheet signed and dated.
2. Communications must be established between the main control room, the auxiliary electrical equipment room (1PA09J) and the reactor trip switch gear panel (1RD05E).
3. Test Equipment.
  - a. Pushbutton switch with leads.

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D. PRECAUTIONS:

1. This surveillance may be performed on Reactor Trip Breaker A and Bypass Trip Breaker B only.
2. No radio communications shall be used in the Auxiliary Electrical Equipment room.
3. This procedure will open Reactor Trip Breaker A. Bypass Trip Breaker A must be closed during execution of steps 4 through 21 to avoid a reactor trip.

E. LIMITATIONS AND ACTIONS:

1. In the event that the acceptance criteria is not met during the performance of this surveillance, IMMEDIATELY notify the Shift Engineer to initiate LCOAR BOS 3.1-1a.
2. The two hour time limit for surveillance testing begins when Reactor Trip Bypass Breaker A (BYA) is racked to CONNECT position and CLOSED.

F. MAIN BODY:

\*\*\*\*\*  
\* CAUTION \*  
\* DO NOT PROCEED WITH THIS PROCEDURE UNLESS THE GENERAL \*  
\* WARNING ANNUNCIATOR 04B03 IS CLEAR \*  
\*\*\*\*\*

- \_\_\_ 1. VERIFY that MCB General Warning annunciator 04B03 is CLEAR

UNDervOLTAGE TRIP

- \_\_\_ 2. VERIFY/RACK to CONNECT and CLOSE Reactor Trip Breaker A (RTA) at 1RD05E.
- \_\_\_ 3. RACK to the TEST and CLOSE Reactor Trip Bypass Breaker B (BYB) at 1RD05E.

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\* NOTE \*  
\* The two hour time limit for surveillance testing begins \*  
\* when the Train A Reactor trip bypass breaker is racked \*  
\* to CONNECT and CLOSED. \*  
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- \_\_\_ 4. RACK to CONNECT and CLOSE Reactor Trip Bypass Breaker A (BYA) at 1RD05E and record the time.

TIME \_\_\_\_\_

- \_\_\_ 5. PLACE the "Logic A" Test Switch at 1PA09J, Logic Test Panel in position 7.

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- \_\_\_c6. DEPRESS and HOLD any two of the four Manual Test Input pushbuttons at 1PA09J Logic Test Panel to actuate the Undervoltage Trip and VERIFY the following:
- a. Reactor Trip Breaker A (RTA) is OPEN at 1RD05E.
  - b. Reactor Trip Bypass Breaker B (BYB) is OPEN at 1RD05E.
- \_\_\_7. RELEASE the two Manual Test Input pushbuttons at 1PA09J Logic Test Panel and PLACE the Logic A Test switch at 1PA09J Logic Test Panel in the OFF position.

INDEPENDENT VERIFICATION \_\_\_\_\_

SHUNT TRIP.

- \_\_\_8. CLOSE Reactor Trip Breaker A (RTA) at 1RD05E
- \_\_\_9. CLOSE Reactor Trip Bypass Breaker B (BYB) at 1RD05E.
- \_\_\_10. INSTALL a pushbutton test switch between terminals TB3-12 (BYBO) and TB3-9 (BYBT) at 1RD05E Cab. 1.
- \_\_\_11. DEPRESS the test pushbutton to actuate the shunt trip to Reactor Trip Bypass Breaker B (BYB).
- \_\_\_c12. VERIFY Reactor Trip Bypass Breaker B (BYB) is OPEN at 1RD05E.
- \_\_\_13. REMOVE the test pushbutton switch between terminals TB 3-12 (BYBO) and TB3-9 (BYBT) at 1RD05E Cab. 1.
- \_\_\_14. INSTALL a test pushbutton switch between terminals TB3-2 (RTAP) and TB3-5 (RTAT) at 1RD05E Cab. 2.
- \_\_\_15. DEPRESS the test pushbutton to actuate the shunt trip to Reactor Trip Breaker A (RTA).
- \_\_\_c16. VERIFY Reactor Trip Breaker A (RTA) is OPEN at 1RD05E.
- \_\_\_17. REMOVE the test pushbutton switch between terminals TB3-2 (RTAP) and TB3-5 (RTAT) at 1RD05E Cab. 2.
- \_\_\_18. WITHDRAW Reactor Trip Breaker A (RTA).
- \_\_\_19. RECORD the number displayed on the Reactor Trip Breaker (RTA) counter. Counter reading \_\_\_\_\_.
- \_\_\_20. RACK Reactor Trip Breaker A (RTA) to the CONNECT position.
- \_\_\_21. CLOSE Reactor Trip Breaker A (RTA) at 1RD05E.

INDEPENDENT VERIFICATION \_\_\_\_\_

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\* CAUTION \*  
\* REACTOR TRIP BREAKER A MUST BE CLOSED OR THE FOLLOWING \*  
\* STEP WILL CAUSE A REACTOR TRIP. \*  
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- \_\_\_ 22. OPEN and RACK to DISCONNECT Reactor Trip Bypass Breaker A (BYA) at 1RD05E and record the time .

TIME \_\_\_\_\_

INDEPENDENT VERIFICATION \_\_\_\_\_

- \_\_\_ 23. WITHDRAW Reactor Trip Bypass Breaker A (BYA).

- \_\_\_ 24. RECORD the number displayed on the Reactor Trip Bypass Breaker A (BYA) counter. Counter reading \_\_\_\_\_.

- \_\_\_ 25. RACK to DISCONNECT Reactor Trip Bypass Breaker B (BYB) at 1RD05E.

INDEPENDENT VERIFICATION \_\_\_\_\_

G. ACCEPTANCE CRITERIA:

1. This surveillance test shall be considered acceptable if Reactor Trip Breaker A (RTA) and Reactor Trip Bypass Breaker B (BYB) trip on both an undervoltage and a shunt trip actuation.

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