

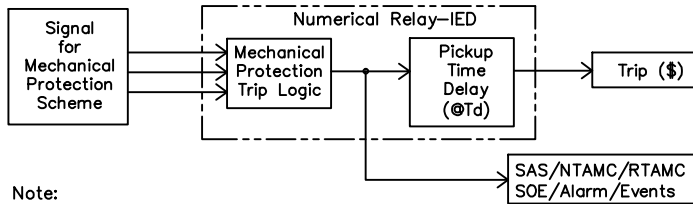
IMPORTANT NOTES:

1. DC SELECTION FOR PROTECTION SYSTEM

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PANEL DC-1	DIFFERENTIAL, BB PU-A(≥400kV), TC-1
PANEL DC-2	REF, BACKUP IMP, BB PU-B(≥ 400kV), TC-2
BUSBAR DC-1	BB CU-A(≥400kV)
BUSBAR DC-2	BB CU-B(≥400kV)
SELECTED DC	CB CLOSE, BCU, STAND ALONE LBB, FOR SINGLE BUSBAR RELAY-CU & PU(≤ 220kV), VT SELECTION, CT SELECTION

- FOR CENTRALISED BUSBAR PROTECTION 96 TRIP RELAY SHOULD BE PROVIDED.
- IN THE SCHEME, CMR(CONTACT MULTIPLICATION RELAY) MUST NOT BE USED EXCEPT FOR TRIP EXTENSION TO CIRCUIT BREAKER.
- RETRIP SHOULD BE EXTENDED TO TC-1 & TC-2 COIL THROUGH DIRECT CONTACT OF PU-A & PU-B IN DECENTRALISED BUSBAR SCHEME AND THROUGH STANDALONE LBB IN CENTRALISED BUSBAR SCHEME.
- ALL THE TRIPPING CIRCUIT SHOULD BE ISOLATED BY TEST PLUG CONTACT.
- IN CASE OF FUTURE BAY(WITHOUT CT & CB), TIE CB LBB BACKTRIP & TIE CT CORE HAS TO BE EXTENDED TO BUSBAR WITH FUTURE BAY. ALSO BUSBAR TRIP(FUTURE BAY SIDE) TO BE EXTENDED TO TIE CB OF HALF DIA.
- IN CASE OF FUTURE BAY(WITH CT & CB), TIE CT CORE HAS TO BE EXTENDED TO BUSBAR WITH FUTURE BAY. IN ADDITION TO THIS, TIE BAY LBB BACKTRIP ASSIGNMENT HAS TO BE IMPLEMENTED AS PER COMPLETE DIA SPECIFIC SCHEME. ALSO BUSBAR TRIP(FUTURE BAY SIDE) TO BE EXTENDED TO TIE & MAIN CB(FUTURE BAY).
- IF DOUBLE BUCCHOLZ RELAYS AVAILABLE, THEN BUCHHOLZ ALARM SHOULD NOT BE EXTENDED TO TRIP.
- MINIMUM BREAKER CLOSING TIME - 200ms, MINIMUM TRIPPING TIME - 100ms. MANUAL CLOSING CB SHOULD BE ALLOWED ONLY WHEN BOTH TC-1 & TC-2 ARE HEALTHY.
- NGR CB/ISOLATOR RELATED STATUS AND ALARM SHOULD BE EXTENDED IED.

Reactor Body Protection Logic



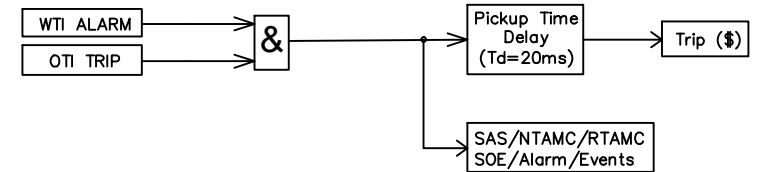
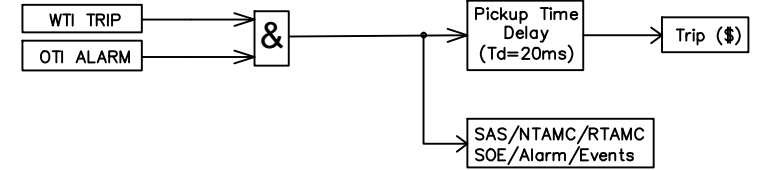
Note:

- @Td = 200ms -> For Buchholz Alarm
- = 200ms -> For Buchholz Trip
- = 20ms -> For Other Body Protection Schemes as applicable

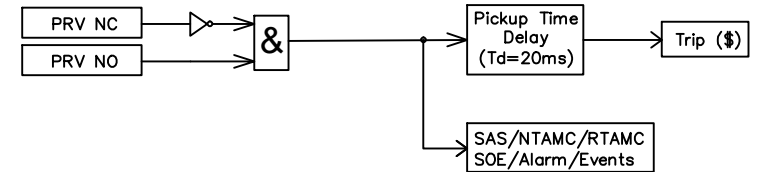
Trip (\$) = Final Mechanical Tripping to Master trip(86A & B) as per Trip matrix

Note: Final Trip Output need to be configured for Relay internal Events.

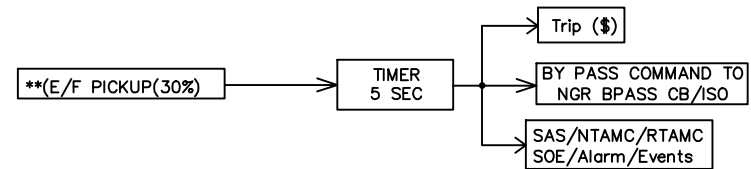
A. WTI/OTI Protection Logic



B. PRV of Main Tank Protection Logic



NGR BYPASS Logic



** E/F FUNCTION SHOULD BE AS PER TEMPLATE. ONLY UNUSED E/F STAGE TO TRIPPING HAS TO BE CONFIGURED FOR NGR BYPASS COMMAND

