



Project Number	Date
Medium-Voltage Switchgear Test Form	TF-2

Equipment Description:	Equipment Number:
Circuit Number:	Voltage:

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Check alignment, levelness, and tightness of bolting <input type="checkbox"/> Check all equipment for the removal of blocking, supports, temporary ties, and temporary jumper wires <input type="checkbox"/> Check control power transformer and PT fuses size, type, and circuit location <input type="checkbox"/> Check CT and PT ratios <input type="checkbox"/> Check CPT size <input type="checkbox"/> Check all components for proper identification per the drawings and specifications <input type="checkbox"/> Inspect bus bar connections (torque per manufacturer's specification) <input type="checkbox"/> Verify connection hardware per project specifications <input type="checkbox"/> Inspect bus supports for cleanliness and tightness <input type="checkbox"/> Inspect ground connections to ground bus <input type="checkbox"/> Inspect operation of the drawout mechanism mechanical interlocks, position indicators, and safety features | <ul style="list-style-type: none"> <input type="checkbox"/> Inspect operation of shutter devices <input type="checkbox"/> Inspect PT disconnecting and grounding mechanisms <input type="checkbox"/> Inspect CB insulating parts for cleanliness and dryness <input type="checkbox"/> Inspect CB electrical contact surfaces for cleanliness and smoothness <input type="checkbox"/> Lubricate contact surfaces per manufacturer's specifications <input type="checkbox"/> Inspect CB contact wipe and alignment per manufacturer's specifications <input type="checkbox"/> Inspect vacuum breaker mechanical adjustments and critical dimensions per manufacturer's specifications <input type="checkbox"/> Inspect operation of circuit breaker manual operation and verify that all parts are free and work smoothly <input type="checkbox"/> Inspect operation of breaker mechanical trip function <input type="checkbox"/> Inspect lubrication of breaker-operating mechanism and all other breaker moving parts |
|---|---|

Test / Insulation Resistance / Switchgear Bus (megohms - 1 minute test with 5000 volt megohmmeter)					
_____ A-B	_____ B-C	_____ C-A	_____ A-Gnd	_____ B-Gnd	_____ C-Gnd

Test / Insulation Resistance / Instrument Transformers (megohms - 1 minute test with 1000 volt megohmmeter)					
_____	_____	_____	_____	_____	_____

Test / Insulation Resistance / Circuit Breaker (Closed Position) (megohms - 1 minute test with 5000 volt megohmmeter)					
_____ A-B	_____ B-C	_____ C-A	_____ A-Gnd	_____ B-Gnd	_____ C-Gnd

Test / Contactor (Closed Position) Contact Resistance (micro ohms)		
_____ A	_____ B	_____ C

Test / Insulation / Circuit Breaker (Closed Position) (voltage - step voltage method with DC hi-pot)	
_____ Hi-pot test form attached	

- Test / Integrity Vacuum Circuit Breaker (in accordance with manufacturer's instructions)
- Test / CT Secondary Circuits (including relays and metering devices)
- Test / Ground CT Secondary Circuits (including relays and metering devices)
- Test / PT Secondary Circuits (including relays and metering devices)
- Test / Voltmeter, Ammeter, and Selector Switches
- Test / Space Heaters (including switching and indicating devices)
- Test / Circuit Breaker / Opening Time (according to manufacturer's specifications)
- Test / Circuit Breaker / Minimal Voltage Trip (40% of nominal voltage)
- Verify Proper Bus Phasing

Function Test / Circuit Breaker (test position) <ul style="list-style-type: none"> <input type="checkbox"/> Close and trip from ALL local control devices <input type="checkbox"/> Close and trip from ALL remote control devices 	Function Test / Circuit Breaker (operating position) <ul style="list-style-type: none"> <input type="checkbox"/> Close and trip from ALL local control devices <input type="checkbox"/> Close and trip from ALL remote control devices
--	---

Function Test / Resistance Grounding Systems	
_____ Test protection, alarm functions	

Comments and notes:

Tester's representative:	Owner's representative:
Date:	Date: