METHOD STATEMENT FOR SITE TESTING AND PRECOMMISSIONING OF TRANSFORMERS

PURPOSE

This method statement will give a brief steps to be carried out for testing and pre-commissioning of transformers.

PROCEDURE

Before commencement of any test make sure the surroundings near clear off from any unwanted materials etc, and make proper approach, scaffolding etc. to carryout required test on the transformers.

1. **INSULATION RESISTANCE TEST:**
   - INSULATION RESISTANCE TEST: (HV – EARTH)
     - Isolate the power supply to the transformer
     - Connect the HV live part of the terminal to the Earth by connecting with 5 KV megger.
     - Check the value after one minute and record the steady value.
   - INSULATION RESISTANCE TEST: (LV – EARTH)
     - Connect the LV live part of the terminal to the Earth by connecting with 5 KV megger.
     - Check the value after one minute and record the steady value.
   - INSULATION RESISTANCE TEST (HV – LV)
     - Connect the HV live part of the terminal to the LV part terminal by connecting with 5 KV megger.
     - CHECK THE VALUE AFTER ONE MINUTE AND RECORD THE STEADY VALUE

2. **BREAK DOWN VOLTAGE TEST:**

   - BREAK DOWN VALUE FOR TRANSFORMER OIL IS MEASURED WITH 2.5 MM ELECTRODE GAP USING BDV TESTER FOR BOTH TRANSFORMER AND HV CABLE BOX. THE RESULTS ARE RECORDED IN THE TEST REPORT ENCLOSED.

3. **VOLTAGE RATIO TEST:**

   - APPLY THE THREE PHASE 440 VOLTAGE ON THE PRIMARY SIDE AND MEASURE THE PRIMARY AND SECONTRY VOLTAGE USING MULTIMETER, FOR EACH TAP. RECORD THE VALUES IN THE FORMAT.
4. **MAGNETIC BALANCE TEST ON NORMAL TAP:**

- APPLY THE SUPPLY VOLTAGE ON ANY ONE OF THE THREE PHASES OF PRIMARY SIDE OF THE TRANSFORMER AND MEASURE THE VOLTAGE IN OTHER TWO PHASES. THE ABOVE TEST HAS TO BE CARRIED OUT FOR ALL THE THREE PHASES IN COMBINATION. RECORD THE VALUES IN THE ATTACHED FORMAT.

5. **PRE COMMISSIONING CHECKS FOR TRANSFORMERS:**

- **OL TEMPERATURE INDICATOR**

  The above check is performed by stimulating a value and checking the continuity for performance. The above check is performed for the alarm and trip set values for all transformers.

- **WINDING TEMPERATURE INDICATOR**

  The above check is performed by stimulating a value and checking the continuity for performance. The above check is performed for the alarm and trip set values for all transformers.

- **ELECTRICAL PRESSURE RELIEF VALVE**

  The above check is performed by manually lifting the plunger of the valve and check for the continuity for performance.