NOVA INDUSTRIAL SA

Switchgear apparatus prophylaxis

NOVA INDUSTRIAL S.A. experts evaluate the technical state of the switchgear apparatus in service based on the analyze of the history data (referring to construction, factory tests, tests for putting into service or for preventive maintenance, incidents in operation), in addition to tests and measurements specific to each type of switchgear.

Tests and measurements specific to **CIRCUIT BREAKERS**:

- measurement of the insulation resistance of the mobile and fixed pieces and subassemblies, made of organic or inorganic insulating materials, parts of the high voltage primary circuit;
- measurement of the insulation resistance of the low voltage secondary and/or auxiliary circuits;
- measurement of the leakage current on the insulating columns of the circuit breakers (IO 123-245-400 kV type circuit breakers);
- insulation test made at the power frequency voltage of the primary current path, with the circuit breaker closed, respectively opened;
- insulation test of the secondary and/or auxiliary paths of current, made at power frequency or direct voltage;
- measurement of the dynamic resistance of the main current path for nominal operating cycles and/or rapidly closing/opening cycles;
- measurement of the extraction forces of the moving knife-contacts from the fixed contacts of the withdrawable equipment;
- measurement of the ohmic resistance of the resistors and of the capacitances of the shunting condensers from the circuit-breakers interrupting chamber;
- measurement of the ohmic resistance of the coils, of the electromagnetic valves or of the opening / closing electro valves ;
- measurement of the operating / reaction time, respectively of the touching and breaking non-simultaneity of the contacts for different phases or for the same phase;
- measurement of the moving contact acceleration;
- verification of the built-in current transformers;
- tests of the oil taken from the arc chute, insulating columns and tank;
- measurement of the rate of displacement of the moving contacts, of the total stroke, etc.;
- verification of the tightness (for the circuit-breakers using SF6);
- verification of the signaling of the pressure decrease under the minimum admissible level and of the action of the pressure connector in this case (interlocks, electrical controls, signaling);
- determination of the SF6 gas dew point;
- verification of the seismic behavior of the circuit beakers;
- measurement of the vibration during the circuit breakers operation;
- measurement of the static and dynamic pressures.



Over 25 years
of experience

ISO 9001, ISO 14001, ISO 45001

QUALITAS
CERTIFICAT SMC NR. QC/1105
SR EN ISO 9001 : 2015

QUALITAS
CERTIFICAT SMM NR. QM/1034
SR EN ISO 14001 : 2015

QUALITAS
CERTIFICAT SMSSM NR. QSM 38
SR EN ISO 45001 : 2023

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