



GENERATOR SERVICES

To keep outage windows at a minimum, our generator service group is turnkey and field based, providing stator and rotor inspections and most repairs at the plant site. Some common repairs include:

- Stator re-wedging
- Rotor retaining ring removal / replacement
- Stator core repairs
- End winding repairs
- Rotor and Stator Rewinds
- CO² dry ice blast cleaning

GRIP® 1, 2, AND 3 TESTING PROGRAMS

The GRIP® inspections are built around outage durations for typical turbine inspections; thus the generator never becomes the critical path of the outage unless an outage is planned specifically to address major maintenance on the generator

GRIP® 1:

This rotor-in inspection program is designed to fit in a 1-2 day turbine outage window.

- Visual and Borescope inspection of stator windings, rotor windings, associated blocking (as accessible), stator core step iron, and fingerplates
- Perform tests of Resistance Temperature Detectors (RTDs), stator windings, and rotor windings
- Stator Winding Tests: Insulation Resistance, Polarization Index and Copper Resistance
- Rotor Winding Tests: Insulation Resistance, Polarization Index, Copper Resistance and AC Impedance
- Exciter Inspection: Visual inspection and Insulation Resistance testing

BENEFITS

- Reveals pending faults in windings of the stator, rotor and exciter
- Reveals deterioration of stator winding insulation caused by partial discharge activity or end winding vibration
- Establishes a baseline for evaluating future inspections and input for establishing planned major maintenance activities
- Written and digital documentation of critical generator components for planning future maintenance

GRIP® 2:

This rotor-in inspection program is designed to fit in a 3-4 day turbine outage window

- All of the GRIP®-1 tests and assessments, plus:
- Stator winding evaluations: Core Tightness Examination, Doble Power Factor and Tip-Up, Corona Examination (as accessible), High Potential (DC Step Voltage, DC Ramp, etc.) and End Winding Stability Examination (optional)

ADDITIONAL BENEFITS

- Reveals additional data on armature winding insulation integrity to more accurately assess life and future maintenance requirements
- Reveals assessment of end winding stability (resonance conditions can be immediately corrected to avoid premature winding deterioration)
- Record of core tightness
- More complete documentation for planning future maintenance

GRIP® 3:

This rotor-out inspection is designed to fit in a Major Inspection turbine outage window.

- GRIP®-1 and GRIP®-2 tests and assessments, plus:
- Additional Stator Winding Examinations: El CID core test, and Wedge Tightness Mapping
- Additional Rotor Winding Examination: Retaining Ring NDE Inspection (based on OEM require-

ADDITIONAL BENEFITS

- Reveals partial discharge activity and deterioration in windings, blocking and core tightness which were obstructed by a rotor-in examination
- Record of stator core lamination condition
- Record of rotor retaining ring, wedge and rotor body condition
- Essential documentation to establish a trend report to monitor future deterioration

24/7 RESPONSE

800-226-7557