



## Generator Reliability Inspection Program (GRIP®) Level-2

### Generator Reliability Inspection Program (GRIP®), Level-2 3-4 Day Assessment (to fit “valve inspection” or “auxiliary inspection”)

#### Inspection/Tests Performed:

- Visual and borescope inspection of stator windings, rotor windings and blocking (if accessible), stator core step iron, and fingerplates.
- Perform tests of RTD's, stator windings, and rotor windings.
- Stator winding tests - Insulation Resistance (IR), Polarization Index (PI), Core Tightness Examination (visual indications of looseness), Doble - Power Factor and Tip-Up, Corona Camera Examination (if accessible, to determine areas and severity of any partial discharge activity), High Potential (DC Step Voltage, DC Ramp, etc.), End Winding Stability Examination (optional), and Winding Resistance.
- Rotor winding tests - Insulation Resistance (IR), Polarization Index (PI), Winding Resistance, AC Impedance, AC Pole Drop (as accessible).
- Exciter Inspection - Visual Inspection, Insulation Resistance tests.

#### Benefits:

- Reveals pending faults in windings of the stator, rotor, and exciter.
- Reveals deterioration of stator coil insulation caused by partial discharge activity, or end winding vibration.

#### Benefits (continued):

- Establishes a “base line” for evaluating future inspections and input for establishing planned major maintenance activities.
- Additional data on stator winding insulation integrity to more accurately access life and future maintenance requirements.
- Assessment of End Winding Stability (resonance conditions can be immediately corrected to avoid premature winding deterioration).
- Record of core tightness.

#### Final Report:

- Standardized format provided electronically (CD or electronic mail).
- Photographs of critical areas in the generator as accessible.
- Dielectric Absorption graph and analysis of insulation integrity.
- Summary of all insulation tests and inspections performed.
- Generator Reliability Assessment & Diagnostic Evaluation (GRADE®) provided with every GRIP®.

**Any Anomalies Reported Immediately, with the Final Report Submitted within 10-Days.**

**nexGEN, LLC**  
Phone: (239) 823-2514 / 7236  
[www.nexgenerator.com](http://www.nexgenerator.com)