Service High Voltage Products

**Scope of inspection work**
Gas insulated switchgear type ELK-04 / EXK-0

Regular inspection work according to manufacturer’s recommendation improves the availability and reliability of your substation.

As a result ABB’s service engineers prepare a final inspection report to evaluate customer’s status of gas insulated switchgear.

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01 Service engineer is preparing a final inspection report

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**Circuit breaker**
- Visual check
- Function control
- Recording of velocity or switching time
- Check of connected cable plug
- Check of operation counter

**Operating mechanism type HMB-1**
- Visual check
- Function control
- Visual check of oil level
- Visual check of carbon brushes
- Check of terminals (electrical connections) and auxiliary switches
- Check of function of spring travel switch
- Measure charging time of hydraulic pump until pump stop
- Reading of operation counter
- Check if stored operation sequence is enabled without blocking
- Visual check of external oil tightness
- Check of function of anti-condensation heater
- Visual check of connected cable plugs
- Check of function of the power relays

**Fast acting earthing switch**
- Visual check
- Function control
- Visual check of carbon brushes

**Combined disconnector / earthing switch**
- Control of auxiliary switches / limit switches
- Visual check of connected cable plugs
- Check of function of anti-condensation heater
- Check of hand crank and end position interlock

**Gas compartment**
- Check of SF₆-gas pressure
- Measuring of SF₆-humidity
- Measuring of SF₆-gas (air content)
- Measuring of SF₆-gas (decomposition products)
- Check of gas-leakages
- Check of density monitor values
Local control cubicle (LCC)
- Visual check
- Check of alarm circuits
- Check of position indications
- Check of bay interlocking
- Check of control circuits according to wiring diagram
- Check of function of anti-condensation heater
- Check of mechanical and electrical connections
- Visual check of connected cable plugs
- Functional test of protection trip on relays or terminal

Current- and voltage transformer
- Inspection of connections and earthing
- Visual inspection

Functional and visual inspections are carried out frequently according to the product documentation. Gas compartments are not opened for such activities.

For the duration of the inspection the switchgear has to be partly taken out of service.