



Field Facts

Substation Maintenance Improves Electrical Reliability for Municipality



Removing the Top of a Regulator



Testing Regulator Operations



High Tension Breaker Timing

The **Problem** for one electrical municipality was to maintain reliable power distribution during the hottest summer months, relying on just one substation.

The **Solution** was supplied by KVA Inc. and their team of substation maintenance and repair specialists. By providing a unique, customized preventive maintenance program, potential equipment failures and outages are significantly reduced. Substation apparatus such as Regulators and Circuit Breakers were taken out of service as part of their scheduled maintenance. Most of the apparatus was serviced on site but some regulators required removal to the KVA Electrical Shop for replacement of their internal contacts.

44kV high tension circuit breakers also required preventative service at the substation. This consisted of checking the contact resistance and then measuring the timing of each phase of the breaker operation. The data was recorded analyzed and provided to the responsible engineer for the Municipality.

To further boost the substation reliability, Hi-Pot Testing of the vacuum circuit breakers checked the insulation levels and their ability to perform.

The solution to the Municipalities' need for increased reliability was a simple monthly Inspection Program performed by KVA Inc. technicians. State-of-the-Art test equipment and a fleet of well-maintained vehicles makint it easy for the crews to show up prepared and ready for work.



Oil Dielectric Testing

As part of KVA’s “Custom Comprehensive” Preventative Maintenance Program, substation testing and maintenance is routinely performed.:

- Oil Dielectric and DGA Tests
- Hi-Pot Testing
- Breaker Contact Resistance
- Breaker Timing
- Protective Relay and Controls
- Recloser ME settings

Backing up these scheduled inspections are the Civil and Electrical construction, maintenance and repair teams within KVA.



Breaker Contact Resistance



Hi Pot Testing a Vacuum Circuit Breaker



Shop Disassembly of a Regulator

KVA specializes in the construction, maintenance and repair of transmission and distribution equipment. We provide the people, apparatus and expertise along with our commitment to safety, reliability and quality. With corporate offices in South Carolina, KVA Inc. maintains multiple state licenses and manages projects throughout the United States. KVA Incorporated is a member of the WBE-Certified, Scope Services Inc.

