

**B&A**

## the forensic engineer

### **FAILURE OF A 345,000 VOLT SF<sub>6</sub> INSULATED SUBSTATION BUS & 700 MVA TRANSFORMER**

Brosz and Associates is pleased to announce the favorable subrogation settlement in a matter involving the failures of a utility's 345,000 volt SF<sub>6</sub> (sulphur hexafluoride) insulated substation bus, and associated 700 MVA generator step up transformer.

The entrapment of water into the aluminum bus conductor during a repair operation, as well as welding pinholes on the six (6) inch aluminum tubular conductor assembly were the major factors contributing to the failure. Upon energization, water and water vapour in the conductor warmed up, and migrated through the pinholes in the factory aluminum weld into the SF<sub>6</sub> gas space. A dielectric breakdown then resulted

The settlement terms were approximately \$2 million USD. For information on this and other failures, please contact our Forensic Engineering group at (905) 472-6660.

Brosz and Associates provided the necessary cause & origin analysis and Forensic Engineering services to the law firm representing the insurers and the insured utility.

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4900 cases over the last 35 years.*