

HLB Engineering

Forensic Cases

Representative expert witness work includes utility and industrial transmission and distribution service supply facilities – 345kV to 480V. Work includes situations involving residential and commercial power and lighting services. My services have included internal reviews for utilities with which I was employed where equipment and material damage or loss of customer supply was in evidence. Work includes investigation of physical evidence, site photography, court reports, deposition work, and trial testimony.

<p>Transmission Line Electrical Contact Client: A major Pittsburgh law firm Location: Brentwood, PA</p>	<p>Three building workers moving a steel construction scaffold with a front-end loader contacted an energized 115kV transmission double-circuit transmission line. All three individuals were badly injured in the accident.</p> <p>Services provided for defense counsel were review of: the facts of the incident; the automatic relaying & control for the protection serving the line at its terminals; National Electrical Safety Code [NESC]; manual switching subsequent to the electrical fault. Services also included consultation with the local serving electric utility and their legal counsel.</p>
<p>Distribution Line Electrical Contact Client: A small Pittsburgh law firm Location: Boston, PA</p>	<p>A maintenance man was badly injured [burns; nerve damage] when the aluminum ladder he was moving contacted an energized 12.47kV distribution line. The accident occurred as he was attempting to clean an attic window.</p> <p>Services provided for plaintiff's counsel included site investigation and review of appropriate codes & standards. Distribution line running down an alley was determined to be at a height too low for the application and too close to a residence [house] - both violations of the NESC. Review included researching codes in force in the 1940s when house was erected.</p>
<p>Contact with Energized Motor Frame Client: A major U.S. insurance firm Location: New Martinsville, WV</p>	<p>An electrical foreman was badly injured [nerve damage] when the chain he reached for proved to be not only improperly grounded but was actually an energized circuit. The incident occurred at a major petrochemical plant. Electrical workers were provided by outside contractor.</p> <p>Services provided included complete review of all work prior to incident; review of plant engineering drawings associated with prior work; review of plant's safety standards; review of contractor's safety standards; report to client and client's attorney.</p>
<p>Contact with Energized Outdoor Substation Switch Client: A major U.S. insurance firm Location: Vandergrift, PA</p>	<p>An electrical foreman was badly injured [burns] when he brushed the hot side of an open outdoor distribution switch. Incident forced a complete electrical outage upon the serving steel plant.</p> <p>Services provided included complete review of all work prior to incident; review of plant engineering drawings associated with prior work; review of plant's safety standards; review of</p>

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	contractor's safety standards; review of NESC and ANSI standards for electrical clearances; review of serving utility's outage incident events/report; review and rejection of most of the monetary claims demanded by steel plant's operations department and their legal counsel; report to client.
Contact with Energized Lighting Circuit Client: A major U.S. insurance firm Location: Pittsburgh, PA	An electrical foreman was killed [electrocuted] when he bare-handed an energized 277V lighting circuit. Services included review of OSHA report and report by independent engineer; review of electrical drawings associated with work of electrical contractor; report to client's attorney.
Transmission Line Electrical Contact Client: A major New England utility Location: Millbury, MA	A teenager was killed [electrocuted] when he climbed a utility transmission tower serving a 345kV circuit. Services included complete review of all electrical operations at time of incident; review of associated engineering drawings for relaying and control and automatic operation; internal report to utility officials.
Transmission Line Electrical Contact Client: An Alaskan utility/state power authority Location: Valdez, AK	Services included complete review of all electrical operations at time of incident; review of associated engineering drawings for relaying and control and automatic operation; site visit for obtaining photos; meetings with utility officials and state law enforcement officials; internal report to utility officials; deposition; trial testimony.
Utility Power System Disturbances & Outages Client: A major New England utility Location: Various MA, NH, RI, VT	As a System Protection Engineer for the New England Electric System [NEES], I provided analyses of widespread system outages due to lightning, switching operations, human contact, equipment and material failure, equipment misoperation. Work included review of system operating procedures, engineering drawings, and physical inspection of generation, transmission, and distribution facilities.
Utility Power System Disturbances & Outages Client: A state power authority Location: Various AK	As the Manger of Operations for the Anchorage-Fairbanks Intertie and Solomon Gulch Hydroelectric Facility for the Alaska Power Authority [APA], I provided analyses of widespread system outages due to lightning, switching operations, equipment and material failure, equipment misoperation. Work included review of system operating procedures, engineering drawings, and physical inspection of generation, transmission, and distribution facilities.
Engineering Design Client: Various Location: Various USA	Though not forensic work per se, much of my career has focused on design of large power stations. In this work, layout of the station arrangements for lines and equipment has been developed and detailed. This work requires use of applicable enforcing codes and standards including the National Electric Code [NEC], the NESC, ANSI standards, state & city fire marshal codes and Federal/State OSHA requirements.