

Robson Forensic

Engineers, Architects, Scientists & Fire Investigators

BRIAN VANDAL, P.E.
Electrical Engineer

PROFESSIONAL EXPERIENCE

2009 to present **Robson Forensic, Inc.**
Area Manager/Electrical Engineer

Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving the design, construction, and operation and maintenance of electrical systems, equipment and devices. Areas of expertise include:

Codes and Standards: National Electric Code, National Electric Safety Code, OSHA, industry safety practices, electrical design, operation and maintenance

Mine Safety and Health (MSHA): Trained for underground longwall & continuous mining locations – electro hydraulic shields, mining equipment and conveyor belt systems

Underground and Overhead Electrical Transmission and Distribution: Power lines, 4-69 kV, substations, 1 and 3 phase, transformers, circuit breakers, contactors, short circuit analysis, grounding, lightning protection, metering, circuit protection and coordination, conduit, wiring, receptacles, power panels, knob & tube wiring, energy management systems, data center design & installation requirements, cell tower AC & DC electrical design & installation, new construction and remodel electrical installation, harmonic distortion

Electrocution, Shock & Lightning Activity: Electrical faults, electrical explosions, arc flashes, lightning damage, over-current protection, ground fault interrupt, shunt trip devices, workplace safety, and electrical safety tools and equipment, light level verification

Fire Alarm & Detection: Fire detection and alarm systems, UV, smoke detectors, heat detectors, flow switches, pressure switches, pull stations, horn & horn and strobes

Devices Serviced & Installed: Motors, drives, circuit boards, batteries, uninterruptible power supplies, emergency generator, energy management systems, power conditioners, isolated ground systems, power monitors, heaters, rectifiers, switches, relays, contactors, multiplexers, and power supplies, switches, limit switches, temperature limits, proximity sensors, fuses relays, reclosers, circuit breakers, motor starters, motors, power supplies, timers, connectors, splices, strain relief, terminals, terminations, cables, cords, conductors, receptacles, plugs, bus bars

Electronic Devices: Semiconductors, capacitors, metal oxide varistors, voltage regulators, potentiometers, rheostats, silicon controlled rectifiers, analog transmitters, photo-electric devices

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BRIAN VANDAL, P.E. Electrical Engineer

Equipment & Activities: Rigging, electrical demolition, hammer drills, wet saws, partner saws, hydraulic knockout and compression tools, construction, estimating, carpentry, band saws, circular saws, table saws, drill presses, stamping equipment and dies, concrete saws and drills, lathe equipment, electric tugger (wire puller), equipment mounting, concrete support for equipment, pipe threader, reciprocating saw, jig saw, back hoe, auger equipment, ground trenching equipment, lull & aerial manlift equipment

2010 to
present **Infinity Power LLC**
Owner

- Provide electrical engineering and/or electrical contracting services.

2002 to
2009 **Titan Power Solutions**
President

- Provided electrical engineering design and installation services to small and mid size commercial/industrial customers with critical data systems by implementing generator and uninterruptible power supply solutions.
- Provided commercial electrical design and contracting services to general contractors.

2000 to
2002 **Qwest Communications**
Senior Manager

- Managed team of program managers and engineers with the responsibility of determining power critical communication sites, and coordinating installation and upgrade of AC and DC power systems.

1999 **Lucas Varity**
Senior Engineer

- Supported manufacturing & design efforts for cellular phone components (Virginia, Colorado, and Sweden).

1995 to
1999 &
2000 **Delphi Automotive Systems (Packard Electric Systems)**
Program Manager/Application Engineer

- Responsible for cross-matrix team of engineering and manufacturing personnel to re-design the oxygen sensor product
- Managed development of integrated electrical/electronic system, which was a flagship project relating to Delphi Automotive Systems' strategic business direction.
- Product support liaison functions for customer sites in Singapore, Japan, England, and Germany, including extensive international travel.

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BRIAN VANDAL, P.E. Electrical Engineer

1992 to **Ohio Edison Company – First Energy**

1995 *Distribution Engineer & Account Representative*

- Facilitated the process of providing power to new customers by determining service requirements and communicating with various departments.
- Powered quality coordinator and technical support advisor.
- Designed overhead and underground projects for distribution, transmission, system protection, and capacitor equipment.

1990 to **American Electric Power Fuel Supply**

1992 *Electrical Maintenance*

- Supported maintenance activities for longwall mining activities.
- Received extensive training on mine operations as well as safety procedures.

1986 to **United States Army**

1991 *Personnel Services*

Honorable discharge from U.S. Army Reserve upon completion of six year term.

PROFESSIONAL CREDENTIALS

Professional Engineer: NCEES, Ohio, Kentucky, Illinois
Master Electrician & Licensed Electrical Contractor: Ohio
Master Electrician: West Virginia
Certified Fire Alarm Installer: Ohio
Certified Aerial and Scissor Lift Operator, 2010-2013

EDUCATION

M.B.A., Systems Management, Baldwin Wallace College, 1997

B.S., Electrical Engineering, Ohio University, 1992

Training:

Arc Flash – 2012 Update, Central Ohio Builders Exchange, February 2012

Managing Electrical Risk, I-Gard Corporation, Columbus, OH, December 2011

Appliance Fire and Failure Investigation, Pennsylvania Association of Arson Investigators (PAAI) – State College, PA, 2011

Arc Mapping Analysis, CFI Trainer – IAAI, 2010

National Electric Safety Code, University of Wisconsin – Madison, 2010

Energy Storage Projects in American Electric Power, IEEE, 2010

National Electric Code Update & Training, 10-Hours, 2003-2011

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BRIAN VANDAL, P.E. **Electrical Engineer**

Solar photovoltaic and solar thermal design and installation training, Hocking
Technical College program, 2008
Power Generation Equipment for Emergency & Prime Power Applications, 2007
Solutions for Extreme Heat and Power Density, 2002
Application Standards for Surge Protection Devices, 2002
Fault Tolerant Power Protection Solutions-Network & Server, 2002
Fundamental Grounding & Wiring Practices for High Availability Facilities, 2002
Power quality identification, measurement, and correction (BMI), 1993

TEACHING/PRESENTATION EXPERIENCE

“Case Study Approach to Forensic Litigation Support,” Columbus Bar Association,
December 2011

“Forensic Approaches in Insurance Cases,” National Society of Professional
Insurance Investigators (NSPII) Ohio Chapter, September 2011

National Electric Code for Central Ohio Builders Exchange, 2005

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronic Engineers (IEEE)
National Association of Fire Investigators (NAFI)
Lightning Protection Institute, Professional Division (LPI)
National Society of Professional Insurance Investigators (NSPII)