



Andrey Rudenko, P.Eng, CFEI, CVFI

President

PROFILE

A licensed Professional Engineer with over 20 years of electrical engineering experience. Mr. Rudenko performs origin and cause fire and explosion investigations, as well as failure analysis on mechanical, electrical and automotive equipment. He is also a Certified Fire & Explosion Investigator (CFEI) and Vehicle Fire Investigator (CVFI), performing fire investigations on various types of structures, vehicles, boats and other types of mechanized equipment. He has extensive experience providing technical knowledge as a consulting expert in state and provincial court cases. In addition, he has extensive expertise in failure analysis and code compliance verification of electrical equipment, power generation systems, and computer equipment. Key strengths include the following:

- ▶ Fire and Explosion Origin & Cause
 - ▶ Manufacturing Equipment Failure Analysis
 - ▶ Power Generation Systems
 - ▶ Vehicle Fire Investigation
 - ▶ Electrical Control Systems
 - ▶ Diesel Generators
 - ▶ Power Transmission / Distribution Equipment Breakdown
 - ▶ HVAC / Thermo-Electron Cogeneration
 - ▶ Critical Power Infrastructures
 - ▶ Product Liability
 - ▶ Appliance Fires
 - ▶ Automatic Transfer Switches
- ▶ *Computer Skills:* Windows, MS Office (Word, Excel, PowerPoint), Assembly Language Programming, PSPICE, and MATLAB.

EDUCATION

Bachelor of Science, Electrical Engineering, 1998

University of Massachusetts – Boston, Massachusetts

Associate of Science, Electrical Engineering, 1996

Holyoke Community College – Holyoke, Massachusetts

Air Conditioning and Refrigeration Technology, 1994

Springfield Technical College – Springfield, Massachusetts

LICENSES

Professional Engineer (P.Eng):

- ▶ Province of Manitoba
- ▶ Province of Ontario

OFFICE

3647 Golden Orchard Drive

Mississauga, ON L4Y 3J2

CONTACT

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CERTIFICATIONS

Certified Fire & Explosion Investigator (CFEI) – (NAFI)

Certified Vehicle Fire Investigator (CVFI) – (NAFI)

EPA Certified – ID # 9420994383

CONTINUING EDUCATION

- ▶ Respirator Fit Test
- ▶ WAH Safety Training
- ▶ Installation of Motors and Transformers, NFPA
- ▶ NFPA 921 Training, Fire Investigation, August 2009
- ▶ NFPA 921 Training, Vehicle Fire Investigation, September 2011
- ▶ Installation of Motors and Transformers
- ▶ Grounded Systems
- ▶ Installing Services
- ▶ Remote Control and Signaling Circuits
- ▶ Installing Motors and Transformers
- ▶ Liability Issues in Oil & Gas Claims
- ▶ Determining Liability in Electrical Generation, Distribution & Transmission Failures
- ▶ Renewable Energy Equipment Losses: Challenges and Considerations All Adjusters Should Know
- ▶ Don't Get Blown Away: Equipment Failures Related to Wind Energy
- ▶ CSST Fire Investigation Claims: What you need to know
- ▶ Arson Awareness
- ▶ Ventilation-Focus Approach to Impact of Building Structures on Fire Development
- ▶ Engineering Design & Product Liability Failure Investigations

PROFESSIONAL AFFILIATIONS

- ▶ Canadian Association of Fire Investigators

- ▶ National Association of Fire Investigators

PROFESSIONAL BACKGROUND

October 2019 – Present: AVR Forensics – Mississauga, Ontario

President

August 2018 – July 2019: Rocmar Forensics Inc. – Etobicoke, Ontario

Engineering Director

March 2012 – August 2018: Envista Forensics, formerly PT&C|LWG – Mississauga, Ontario

Senior Project Engineer

June 2009 – March 2012: Rochon Engineering – Bolton, Ontario

Electrical Forensic Engineer

January 2003 – June 2009: Consulting Services, Self Employed – West Springfield, Massachusetts

Consulting Engineer

September 1999 – January 2003: Einhorn Yaffee Prescott A&E, P.C. – Middletown, New York
Electrical Test / Consulting Engineer, Associate - Mission Critical Facilities Group

August 1998 – September 1999: Piller, Inc. – Middletown, New York
Project Engineer

December 1996 – January 1998: Aegis Energy Services, Inc. – West Springfield, Massachusetts
Project Manager

July 1993 – December 1996: Aegis Energy Services, Inc. – West Springfield, Massachusetts
Cogeneration Technician

REPRESENTATIVE EXPERIENCE

▶ Performed assessment of the following equipment:

- Residential/commercial/industrial power generating/distributing/consuming equipment and its components:
 - generators
 - transformers
 - switchgear
 - breakers, disconnects, and switches
 - cables and busducts
 - motors and MCCs
 - power factor correction devices
 - UPS systems and paralleling switchgears
 - batteries and chargers
 - ASTS PDUs
 - power metering devices
 - ATs and paralleling synchronization devices
 - photovoltaic systems including panels, combiners, and inverters
 - dynamic power storage devices (flywheels)
 - PLCs, VFDs, and other system controllers including automation components
 - refrigerators, coolers, and freezers
 - washers and dryers
 - conveyor ovens and ranges
 - furnaces: gas/electric/geothermal/oil
 - compressors and pumps
 - A/C systems and heat pumps, water/air/glycol
 - unit/baseboard/infrared heaters
 - lighting systems including lamps and luminaires
 - overhead cranes
 - CNCs including lathes and milling machines
 - printing presses and printers including 3D
 - greenhouse automation controls for ventilation/irrigation/heating

- Mechanical systems:
 - engines: diesel/gas/propane/natural gas/bio gas
 - hot water and steam boilers: oil/gas
 - water heaters: gas/electric
 - mobile cranes
 - air and Freon compressors: piston/rotary/vein/scroll/screw
 - pneumatic and liquid valves: pressure relief/gate/ball/check
 - Vehicles:
 - cars
 - trucks
 - watercrafts, personal and commercial
- ▶ Performed fire investigation and examination in order to determine cause and origin of fire/explosion involving the equipment and components listed above.

PUBLICATIONS / PRESENTATIONS / TESTIMONY

- ▶ “Overloads, Over Currents and Arcing Across a Carbonized Path”, CAFI Journal – 2012, Vol. 1