

Curriculum Vitae

## Gary Howard, B.Sc., P.Eng., C.Eng.

Advantage Forensics® Inc., Central Toronto Office: (416) 630-0700

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### PRACTICE AREAS

- **Material Failure Analysis**
- **Plumbing Fitting Failures**
- **Fuel Oil System Installation & Tank Failure**
- **Hydrogen Gas Installation Assessment**
- **Occupational Health & Safety Investigations**
- **Cranes, Rigging & Hoist Equipment Failures**
- **Machine, Heavy Equipment, Marine & Engine Failures**
- **Window & Glass Failure**
- **Vehicle Component Failure**
- **Ladder & Chair Failures**
- **Shipping Damage Investigation**
- **Sewer Backups**
- **Building Freeze Investigations**

### ACADEMIC BACKGROUND

Bachelor of Science Degree in Metallurgical Engineering, Queen's University, 1981

### ADDITIONAL COURSES, TRAINING & AWARDS

- “Ductile to Brittle Transition of Plastics” webinar series, Society of Plastics Engineers, September 2012
- Enforcement & Investigative Skills, Justice Institute of BC, 1991

### COURT EXPERIENCE

Qualified by the Superior Court of Ontario, the Superior Court of BC, the Small Claims Court of Ontario, the Coroner's Court of BC, and the Criminal Court of BC as an expert in:

- Failure Analysis
- Mechanical Systems
- Sawmill Equipment
- Garage Door Systems
- Refrigeration Systems
- Slip & Fall Investigations



## PROFESSIONAL SOCIETIES & ASSOCIATIONS

Professional Engineers of Ontario, P.Eng.

Designated Consulting Engineer (C.Eng.) in Ontario

Association of Professional Engineers & Geoscientists of BC, 1985-1999

Society of Plastics Engineers

National Fire Protection Association (NFPA):

Member of technical committees NFPA 52 & 57: Alternative Vehicular Fuel Systems

Member of technical committees NFPA 50, 50A, 50B, 51, 51A, 55 & 560: Industrial & Medical Gases

CSA technical committee HGV4: Hydrogen Fueling Equipment

International Organization for Standardization (ISO):

Task group leader

Member of technical committees TC197 WG8, WG9 & WG11: Hydrogen Gas Generators & Fueling Stations

Canadian Transportation Fuel Cell Alliance Codes & Standards member

US Fuel Cell Council: Codes, Standards & Safety committees

California Governor's Council on Hydrogen Codes & Standards

California Fuel Partnership: Codes, Standards & Safety committees

## EMPLOYMENT HISTORY

**Advantage Forensics Inc.**, Toronto

Consultant, Material Engineering & Failure Analysis

Oct 2012 to present

**Safety and Forensic Engineering**, King City

President, Lead Investigator

1998 to present

**Rochon Engineering**, Toronto

Forensic Engineer, Material Engineering & Failure Analysis

2005 to 2009

**Worker's Compensation Board of BC**, Vancouver

Safety Engineer

1987 to 1998

**Matec Consultants Ltd.**, Burnaby

Forensic Engineer

1984 to 1987



**Boiler Inspection & Insurance Company, Toronto**

Special Accounts Underwrite & Claims Adjuster  
1982 to 1984

**GM Canada, St. Catharines**

Quality Engineer  
1981 to 1982

**LECTURES**

- “Fundamentals of Property & Liability Insurance Law – Product Liability Claims”, Ontario Bar Association, Toronto, October 2012.
- “Codes and Standards in Determining Liability”, McCague Borlack LLP, Toronto, September 2012.
- “Workers Compensation Regulations for Professional Engineers”, University of British Columbia and University of Victoria, 1994 to 1996.

**JOURNAL PAPERS & PUBLICATIONS**

- "BNQ Canadian Hydrogen Installation Code", Feb. 2007.
- Howard, G.W., Tchouvelev, A.V., Cheng, Z., Agranta, V.M., "Defining Hazardous Zones - Electrical Classification Distances", March 2005.
- "Comparison of Gaseous Hydrogen Properties with Natural Gas", National Hydrogen Association, 2004.
- "Review of Sawmill Fatalities & Serious Injuries 1988-1997", Worker's Compensation Board of BC, 1997.