

## **CURRICULUM VITAE FOR RICHARD J. KOOREN, P.ENG.**

### **EDUCATION**

**DEGREE - Bachelor of Applied Science (B.A.Sc.)  
University of Waterloo  
Waterloo, Ontario  
1978 Chemical Engineering**

### **PROFESSIONAL ASSOCIATIONS**

- Professional Engineers of Ontario (P.Eng. since 1980)
- Association of the Professional Engineers of the Province of Manitoba (1992)
- Designated Consulting Engineer by PEO (since 1988)
- Canadian Society For Chemical Engineers (1985)
- Chemical Institute of Canada (M.C.I.C. 1985)

### **CERTIFICATION**

- Certified Fire and Explosion Investigator (CFEI), NAFI
- Certified Fire Investigation Instructor (CFII), NAFI
- Canadian Certified Fire Investigator, level C, CCFI-C

### **TECHNICAL AFFILIATIONS**

- International Association of Arson Investigators (Ontario Chapter Past President and Board member 12 years)
- National Fire Protection Association
- Canadian Society of Forensic Science ( Past Engineering Section Chairman)
- Canadian Fire Safety Association
- Canadian Association of Fire Investigators (Member)
- National Association of Fire Investigators
- Institution of Fire Engineers (Member)
- International Association of Marine Investigators

## **PROFESSIONAL EXPERIENCE**

**July 1991 to Present**

**Origin and Cause Incorporated, Ancaster, Ontario**

- **Partner and Investigative Engineer**
- **Investigation of fires and explosions in buildings and vehicles**
- **Analysis of fire scenes with respect to temperatures attained and combustibility of materials exposed to a fire**
- **Installation of wood burning appliances**
- **To date involved in the investigation of over 1900 fire losses**
- **Investigation of chemical spills**
- **Fire suppression system failures**
- **Liability issues pertaining to Fire Departments**
- **Fire spread analysis**

**January 1993 to Present**

**Hamilton Fire Department, Ancaster, Ontario**

- **Part-time firefighter holding the rank of Lieutenant**

**1985 to June 1991**

**Forensic Engineering Incorporated, Burlington, Ontario**

- **Senior Associate and Investigative Engineer**
- **Investigation of fire and explosions in buildings and vehicles**
- **Research of fire causes and effects**

**1982 to 1984**

**Office of the Fire Marshal, Toronto, Ontario**

**Minister of the Solicitor General**

**(Government of Ontario)**

- **Special Projects Engineer on fire and vapour explosion investigation and research**
- **Inspections of buildings for Fire Code violations**

**1980 to 1982**

**Prestolite Battery Company of Canada, Maple**

- **Process Engineer and quality control manager**
- **Supervised Q.C. program for manufacturing facility**
- **Set up and developed operating parameters for processing equipment**
- **Research and qualifying company to supply original equipment to major automotive manufacturer**

**PROFESSIONAL EXPERIENCE Continued**

#### **1978 to 1980**

**Lever Detergents Limited, Toronto, Ontario**

- Research Engineer
- Development of new and existing products for the manufacturer of liquid detergents and hard surface cleaners
- Manufacturing trouble-shooting and product quality

#### **1974 to 1978**

**Employed by industries during work terms while attending the Co-Operative Engineering Program at the University of Waterloo**

**- Stelco, Hamilton, Ontario**

**Air and water quality control analysis**

**Plant water consumption surveys**

**- Proctor & Gamble, Hamilton, Ontario**

**Various engineering projects including processing and pollution surveys**

#### **COURT EXPERIENCE**

- In all levels of Ontario Court - Supreme, District and Provincial
- Testified Queen's Bench, Provinces of Manitoba, Alberta and Saskatchewan
- Testified Judicial Court, Province of New Brunswick
- Testified Queen's Bench, Province of New Brunswick
- Testifying in Civil Court for Plaintiff and Defendant
- Testifying in Criminal Court for Crown and Defendant
- Testifying in Preliminary Hearings for Criminal matters
- Testifying in Coroner's Inquests

#### **COURSES**

**Canadian Fire Investigation School**

- Level II, Arnprior, September 1982
- Level III, Toronto, November 1983

**University of Wisconsin, Madison, Wisconsin**

- Electrical Fire Investigation, April 1987

## **COURSES Continued**

### **International Association of Arson Investigators**

- 39<sup>th</sup> Annual Seminar, Niagara Falls, N.Y., May 1988
- 45<sup>th</sup> Annual Seminar, Biloxi, Mississippi, May 1994
- 47<sup>th</sup> Annual Seminar, St. Louis, Missouri, April 1996
- 48<sup>th</sup> Annual Seminar, Toronto, Ontario, May 1997
- 52<sup>nd</sup> Annual seminar, Atlantic City, NJ, May 2001
- Numerous one and two day seminars organized and attended

### **NAFI/NFPA Fire, Arson & Explosion Investigation Training Program**

- Chicago, Illinois, August 1995
- Tested and passed CFEI (Certified Fire and Explosion Investigator)

### **Certification**

- CFII (Certified Fire Investigation Instructor) Certification

### **UBC Fire Science and Fire Investigation Workshop**

- Vancouver, British Columbia, May 1996
- Examination and Passed

### **Canadian Coalition Against Fraud Seminar**

- Banff, Alberta, June 1996
- Program facilitator

### **Investigation of Gas and Electric Appliance Fires**

- Benton Harbour, Michigan, May 2000

### **Investigation of Boat Fires, CAFI**

- Orillia, Ontario, October 2001

### **Investigation of Boat Fires, IAAI/ IAMI**

- Wells Beach, Maine, USA, June 2005

## **PRESENTATIONS**

**Lectured at the Canadian Fire Investigation Schools**

- Levels I and III on Causes of Fires and case studies, Ontario Fire College, Gravenhurst, Ontario

**Presentation to Insurance Adjusters, Peterborough & St. Catharines**

- Vehicle Fires

**Presentation to Insurance Adjusters, Cambridge**

- Fires caused by Wood Burning Appliances

**Organized and chaired Fire Investigation Program**

- Technical University of Nova Scotia (TUNS)  
Toronto, September 1991

**Presentations at CSFS Conferences**

- Computer fire programs, Toronto 1988
- Flashover Fires, Winnipeg 1993
- Cellulose Insulation Fires, Vancouver 1994
- Vehicle Fire Fatality, Vancouver 1994
- Forensic Engineering, Toronto 1995
- Alternate uses of GC/MS/MS, Wolfville, 1998

**Lectured to Insurance Claims Personnel, Cambridge**

- Origin and Cause of Fires, June 1992

**Lectured to Hamilton Wentworth Regional Fire School**

- Origin and Cause of Fires, May 1992

**Lectured on Fire investigation and overhauling fire scenes.**

- Huron County Mutual Aid Fire Departments, September 1994
- Grey County Mutual Aid Fire Departments, November 1994
- Bruce County Mutual Aid Fire Departments, March 1995
- Wellington County Mutual Aid Fire Departments, October 1995
- Peterborough County Mutual Aid Fire Departments, September 1996
- Haldimand-Norfolk Mutual Aid Fire Departments, September 2000
- Northumberland County Mutual Aid Fire Departments, January 2001
- Selkirk Fire Station, Haldimand EMS, June 2001

**Lectured to Association of Fire Department Training Officers, March 1995**

- Fire Department Liability

**PRESENTATIONS Continued**

**IAAI Ontario Chapter Arson Seminar**

**-Fire scene investigation, October 1998, London, Ontario**

**IAAI Ontario Chapter Arson Seminar**

**-Fire scene investigation and properties of flammable liquids,  
June 1999, Simcoe, Ontario**

**Lectured to Bruce County Insurance Brokers Association**

**-Origin and cause of fires, Fire science.  
Walkerton, Ontario, March 2000**

**International Police Diver Symposium, September 1999**

**-Hamilton, Ontario**

- properties of flammable liquids
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**Metropolitan Toronto Police, March 2002**

**-Toronto, Ontario  
-Origin and Cause of boat fires**

**Hamilton Fire Department, March 2003**

**-Hamilton, Ontario  
-Fire dynamics and behaviour, new recruit training**

**International Association of Marine Investigators, February 2004**

**-Toronto, Ontario  
- Marine fires and explosion investigations**

**Society of Accredited Marine Surveyors, October 2004**

**- Toronto, Ontario  
- International Association of Marine Investigators**

**International Association of Marine Investigators, November 2004**

**-Vancouver, British Columbia  
-International Association of Marine Investigators**

**PAPERS PUBLISHED**

**Flashover: An Arson Defense Tool?**

- Canadian Society of Forensic Science Journal, March 1994
- BC Adjusters' Quarterly, April 1994
- The Team Approach, IAAI Quarterly, Summer 1996
- Fire-Arson Investigator, California Conf. Of Arson Investigators, April 1997

**Fires Involving Chimneys and Woodburning Appliances, Parts I & II**

- BC Adjusters' Quarterly, October 1994, January 1995

**Forensic Engineering**

- Canadian Society of Forensic Science Journal, March 1997
- Canadian Independent Adjuster, 1997

**September 25, 2005**