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# Stephen L. Martin

CFEI

Fire and Explosion Investigator

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## OFFICE

Burlington

## EMAIL

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## CONTACT

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Stephen has a 40-year career as an Ontario Fire Marshal and Police Investigator, during which he has led or assisted in over 800 fire and explosion investigations. He has provided expert testimony as a Collision Reconstructionist and has specialized in vehicle and marine fire investigations. This skill set entails the identification, collection, preservation, and presentation of evidence for use in court, the documentation of scenes, and the interviewing of witnesses.

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## CERTIFICATIONS

- Certified Fire Investigator, Office of the Fire Marshal and Emergency Management Professionalization process (2016)
- NFPA 1033 Standard for Professional Qualifications for Fire Investigators, Ontario Fire College (2016)
- Control of Hazardous Energy, Electrical Safety Authority (May 2015)
- Certified Fire and Explosion Investigator, National Fire Protection Association NFPA 921 (February 2010)

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## PROFESSIONAL EXPERIENCE

### Fire and Explosion Investigator

OCI Group (Formerly Origin and Cause Incorporated)

Burlington, ON

October 2018 – present

### Fire Investigator

Office of the Fire Marshal

Ontario

2015 – October 2018

- Responsible for the investigation of all fatal fires, fires that result in serious injuries to persons, explosions, incendiary fires, fires of provincial interest, and large loss fires
- Coordinated fire/explosion scenes and determined origin and cause
- Provided expert testimony on origin and cause of fires
- Prepared investigative reports

### Homicide Investigator

Halton Regional Police Service

Halton, ON

2013 – 2015

- Responsible for the investigation and leadership of Homicide investigations utilizing Major Case Management protocols
- Trained in interview and interrogation of witnesses and suspects
- Supervised and facilitated the collection of Forensic evidence at crime scenes
- Coordinated all Missing Person and Persons to Locate investigations
- Assigned as a lead investigator on outstanding Cold Case investigations 1967 to 2015
- 30-year Federal Exemplary Service Medal recipient

**Arson Investigator**

Halton Regional Police Service

Halton, ON

2008 – 2013

- Responsible for the on-scene identification and collection of evidence for arson and suspicious fire investigations
- Determined origin and cause of fires
- Completed the interview of witnesses and suspects within the rules of evidence
- Supported the OFMEM in fires/explosions involving death, serious injury and arson
- Documented evidence and initiated criminal proceedings in arson related prosecutions

**Fraud Investigator**

Commercial Crime Unit

Halton Regional Police Service

Halton, ON

2008 to 2013

- Responsible for the investigation of large scale Fraud and False pretense investigations
- Trained in the collection and analysis of documentary evidence and preparation of complicated technical briefs for Criminal prosecution purposes
- Experienced in preparing judicial authorizations for disclosure of documents

**Collision Reconstructionist**

Halton Regional Police Service

Halton, ON

1992 – 2008

- Investigated and reconstructed in excess of 400 fatality and serious injury vehicle collisions
- Coordinated scene investigations and supervised the identification, collection and analysis of evidence and exhibits
- Initiated technical failure analysis to identify mechanical cause
- Responsible for preparing technical reports and provided expert testimony at all levels of court

## **Police Constable**

Halton Regional Police Service

Halton, ON

1985 – 1992

- General patrol and enforcement duties
  - Criminal and Provincial statute enforcement
  - Breathalyzer and intoxilyzer technician and program coordinator
  - Marine patrol and Community liaison officer
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## **FURTHER TRAINING & EDUCATION**

### **Human Remains Recovery**

Forensic Anthropologist G. Olson B.A., M.Sc.

Ontario Fire College

May 2017

- A four-day course on the identification and recovery of human remains from fire and crime scenes.

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

Fire Findings Research Laboratory, Benton Harbour, Michigan

November 2016

- A four-day training seminar on how appliances and electrical components work, fail and cause fires. Including the examination of actual appliances and appliance components that have failed, causing fires and witness fire-causing demonstrations involving these products.

### **General Investigative Techniques Course**

Police Learning Centre, Durham College, Oshawa, Ontario

September 2016

- Police-led training on investigative resources and techniques, note taking, evidence collection and search warrants.

### **Certified Fire Investigator – National Fire Protection Association 1033**

I.F.S.A.C (International Fire Service Accreditation Congress)

July 2016

- Certification obtained through Office of the Fire Marshal upon successful completion of Advanced Fire Cause Determination Course (2016).

### **OFMEM Advanced Fire Cause and Determination Course**

March 2016

- OFMEM in-house, 10-day training course that included presentations on fire chemistry/behaviour of fire, elevated fires, post-flashover ventilation analysis, compartment fires, fuel configuration, smouldering combustion, self-heating of inorganics and organics, interviewing and statements, CVs and expert court testimony, fire dynamics of human remains, understanding electrical systems and appliances, fire protection systems, fire modeling, fuel systems, clandestine labs, explosion dynamics. Students assigned to complete a case law analysis, present a one hour lecture on an advanced fire dynamics topic, and to prepare and conduct a live demonstration burn. Testing included a 4-hour examination, defending their findings for a completed fire investigation, a 1-hour peer-reviewed presentation, and a completed 1,000 – 1,500 word essay.

### **OFMEM Joint Fall Training**

Ontario Fire College, Gravenhurst, Ontario

November 2015

- A four-day in service training including lectures on Fall Arrest Training, Laser Mapping Systems, Exhibit Processes, Explosive Positive Pressure Ventilation Tactics, Home Sweet 3D software training, and Case Reviews of Explosion (Pahor) and Arson (Irish).

### **Fire Scene Assessment**

Toronto Arson Task Force, Toronto Fire Academy

September 2015

- A two-day training seminar on initial scene investigation and collection of evidence, the scientific method, scene safety and fire pattern analysis. Practical exercise: Assessment of four burn cells to identify/interpret fire patterns and determine origin, cause and ignition sequence for, 1) Ignition from smouldering cigarette on chair, 2) Incendiary ignition of contact cement with trailer, 3) Waste

paper basket ignition progression to bedding material, 4) Incendiary ignition disguised as cooking fire.

### **NFPA 1033 Fire Investigations Course**

Ontario Fire College

August 2015

- A one week introduction to fire/explosion scene investigations to the standards of NFPA 1033. Supervised practical examination of eight cell burns and two vehicles for identification and interpretation of fire patterns, fire spread, and cause analysis. Written examination at conclusion.

### **OFMEM – Fire Investigator Annual Training**

Ontario Fire College

July 2015

- A five-day training seminar covering topics and practical exercise assessment of five burn cells to identify/interpret fire patterns and determine origin and cause. Peer Case studies of dryer fire, Sunrise Propane explosion scene. Practical testing/experiments in alternative ignition sources and sequences.

### **OFMEM Fire Investigator Training- Fire Code Training**

Midhurst, Ontario

July 2015

- A one-day lecture on content and application of current Ontario Fire Code. Included tour of condo development and review of its fire safety systems.

### **International Association of Arson Investigators (IAAI)**

June 2015

- 47 hours of accredited training in Fire investigation and related topics: Basic electricity and electrical safety; explosion dynamics; understanding fire through the candle experiments; fire investigator scene safety and fire protection systems; fundamentals of residential building construction; physical evidence at the fire scene; post-flashover fires; residential electrical and natural gas systems; a ventilation-focused approach to the impact of building structures and systems on fire development; an analysis of the Station Nightclub fire.

## **OFMEM – Fire Investigator Annual Training**

Ontario Fire College

June 2015

- A five-day training seminar covering topics such as practical and theoretical training in basic fire chemistry, fire dynamics and explosion dynamics; scientific method; origin and cause determination; flashover and ventilation.

## **OFMEM Fire Investigation New Recruit Training Program**

May 2015

- Topics included: Corporate orientation; district office administration; vehicle administration; practical and theoretical training in basic fire chemistry; basic fire and explosion dynamics; scientific method; origin and cause determination; flashover and ventilation; scene management; fire scene safety; note taking; report writing; digital photography; fire protection and prevention act; Ontario fire code; fire safety issues; predominant purpose and incident command. Lessons were presented both in a classroom and on-scene at fire grounds.

## **Certified Fire and Explosion Investigator – NAFI**

February 2010

- A one week course and examination on fire investigation, origin and cause to the standards of NFPA 921.

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## **PRESENTATIONS**

### **Instructor, NFPA 1033 Fire Investigations Course**

Ontario Fire College

August 2016

- A one-week introduction to fire/explosion scene investigations to the standards of NFPA 1033. Supervised practical examination of eight cell burns and two vehicles for identification and interpretation of fire patterns, fire spread, and cause analysis. Provided lectures on documentation interviewing and report writing, debris removal and fire scene reconstruction, explosion dynamics, smouldering fires.
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## INVESTIGATIVE TRAINING

- Death Investigations – Ontario Police College/Ontario Coroner’s Office, 2014
- Homicide Investigations Course – Ontario Police College, 2013
- Canadian Securities Course – CSI, 2013
- Major Case Management Course – Ontario Police College, 2014
- Investment Fraud – Canadian Police College, 2011
- Internet Investigations – Ontario Police College, 2011
- Fraud Investigators Course – Ontario Police College, 2009
- International Niagara Counterfeit Seminar – Bank of Canada, 2008
- Financial Investigations Course – Canadian Police College, 2008
- Collision Reconstruction Seminar – Peel Regional Police, 2007
- Investigative Interviewing Techniques – Ontario Police College, 2006
- Crime Zone Drawing Course – Ontario Police College, 2006
- Pedestrian Collision Reconstruction Course – 2006
- Motorcycle Crash Investigation – Institute of Police Technology and Management, University of Florida, 2006
- Geodometer Total Station Mapping – Robotics Training, Trimble Canada, 2005
- Expert Evidence in Criminal Proceedings – Osgoode Hall, 2005
- Feeney Warrant Seminar – HRPS In-Service Training, 2004
- Advanced Patrol Training Course – Ontario Police College, 2004
- Reid Interview and Interrogation – Reid & Assoc., 2002
- Reid Advanced Interview and Interrogation, Reid & Assoc., 2002
- Vericom Instruments – York Region Police, 2002
- Traffic Investigators Seminar – Charles O. Bick College, 2002
- Search Warrant Course – Ontario Police College, 2001
- Geodometer System 600 Total Station Mapping Course – Trimble Canada, 2001
- General Investigative Techniques – Ontario Police College, 2000
- Collision Reconstruction Course – Canadian Police College, 1999
- Commercial Vehicle Enforcement – Ministry of Transportation, 1999
- Total Station Laser Mapping Device – SOKKIA Canada, 1998
- Intoxilyzer Technician Course – Centre of Forensic Sciences, 1996
- AutoCAD – Halton Board of Education, 1996
- Advanced Collision Analysis – Canadian Police College, 1995
- Coach Officer’s Training Course – Halton Police, 1991
- Advanced Patrol Training Course – Ontario Police College, 1991
- Traffic Law and Collision Investigation – Ontario Police College, 1989
- Probationary Constable’s Course – Ontario Police College, 1986