

# Steven Klimpel

CFEI



Kingston Ontario

## EDUCATION

### Ontario Fire College

- Fire Investigation – Continuing Education (2009 – present)  
Bi-annual training covering various topics, including fire science, fire chemistry, emerging technologies, forensic engineering, applicable case law and the judicial system, working with provincial stakeholders, equipment failure and identification. Participate in live fire burns and various experiments on the fire grounds.
- Advanced Fire Cause and Determination Course  
NFPA 1033 Certification: Standard for Professional Qualifications for Fire Investigator

### Durham College

- Automotive Service Technician - Apprenticeship Program (1995)  
Working knowledge of all a vehicle's systems including engines, electrical/electronics, fuels, transmissions and drivelines, and steering, suspension and brakes.

### Fleming College

- Fire Safety and Security Management (2001)
- Police Foundations Certificate Program (2001)  
Certificate program consisting of four semesters covering Canadian Corporate, Criminal, Civil Law, Fire Investigations, Fire Suppression, Fire Protection, Evidence Collection, Canadian Charter of Rights and Freedoms, Ontario Fire Code, Psychology, Criminology, Mathematics, English, Police Powers, Highway Traffic Act, Criminal Code of Canada, Occupational Health and Safety and Political Science.

## CERTIFICATION

NFPA 1033 Certification (2011)  
Standard for Professional Qualifications for Fire Investigator

## CITATIONS

Fire Marshal's Citation – outstanding case management in large loss in Toronto (2011)

## PROFESSIONAL MEMBERSHIPS

Canadian Automotive Technician  
National Association of Fire Investigators (NAFI)

## PROFESSIONAL EXPERIENCE

- Qualified as an expert in the origin, cause, and circumstances, photography and collection of evidence of non and fatal fires including explosions
- 5 years' experience as a fire investigator with the OFM
- Total Fires/Explosions investigated – 1,000+
- Fatal Fires investigated – 25
- Explosions investigated – 15

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## June 2014 to Present

Fire and Explosion Investigator & Operations Manager Northern and Eastern Ontario/Atlantic Canada, **Origin and Cause Inc.**  
Kingston, Ontario

## April 2009 – May 2014

Fire Investigator **Office of the Fire Marshal Ministry of Community Safety and Correctional Services**

- Responsible for the investigation of fire/explosion scenes to determine origin, cause & circumstances – including fatal fires, gaseous explosions, large loss fires and other incidents as directed.

## January 2003 to April 2009

Fleet Management Coordinator – Office of the Fire Marshal **Ministry of Community Safety and Correctional Services**

- Responsible for the management of 150 vehicles and 55 fire trucks throughout province.

## April 2001 to January 2003

Transportation Enforcement Officer 2 **Ministry of Transportation**  
Whitby and Bowmanville, Ontario

- Duties include weigh commercial vehicles using rolling and portable scales, assist in level 1 and level 3 C.V.S.A. inspections, collect driver documents, complete portions of C.V.I.R., check C.V.O.R. status, driver and vehicle certification on Ministry main frame, to ensure compliance with provincial legislation. Participated in several truck safety blitzes where other provincial enforcement personnel were present including Ministry of Environment and Energy SMOG Patrol Officers.

## March 1997 to September 1999

Refuse truck operator/truck mechanic **Municipality of Clarington**  
Bowmanville, Ontario

- Responsible for collecting refuse from areas within the Municipality of Clarington
- Perform various repairs on heavy refuse trucks including hydraulic diagnostics and repairs, brake system repairs and radio repairs.

## November 1995 to February 1997

Automotive Painter **Paint Plas**  
Ajax, Ontario

- Lead hand on midnight shift – responsible for painting various automotive parts for various vehicle manufactures with solvent based paint.
- Responsible to operate and maintain painting robots throughout paint system.

## June 1993 to October 1994

Ambulance Communications Dispatcher **Ministry of Health**  
Oshawa, ON (Part-time – GO TEMP)

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- Responsible for receiving calls for medical service and dispatching land ambulances throughout Durham Region. Responsible for coordinating patient transfer from various hospitals around the Durham Region.

October 1993 to November 1995

Class "A" Apprentice ***Nurse Chevrolet Oldsmobile Cadillac***

Whitby, Ontario

Class "A" apprentice – perform various duties in automotive repair facility, including engine diagnosis and repairs, brake system repairs, steering and drive train analysis and repairs, electrical diagnosis and repairs.

July 1991 to October 1993

Class "A" Apprentice ***Rossland Square Texaco***

Oshawa, Ontario

- Perform various duties in automotive repair facility, including engine diagnosis and repairs, brake system repairs, steering and drive train analysis and repairs, electrical diagnosis and repairs.

June 1990 to July 1991

Mechanic Apprentice ***Kingvar Chrysler***

Courtice, Ontario

- Perform various duties in automotive repair facility including used and new vehicle clean up (PDI).

## FURTHER TRAINING AND EDUCATION

**Fire Prevention Officer 101: Legislation and Standards - Ontario Fire College – (2012- 1 day)**

Topics covered included Legislation that applies to fire departments, Occupational Health and Safety Act requirements as it applied to protective clothing for firefighters, mandatory requirements for PPE, requirements of the Fire Prevention Officer, municipal by-laws, reporting of fire events to the OFM. Review the FFPA and discuss authority for inspections and investigations.

## FIRE INVESTIGATION RELATED

**Advanced Fire Cause and Determination Course - NFPA 1033 Certification: Standard for Professional Qualifications for Fire Investigator (2009 – 2011 – 2012 – 30 days) – Ontario Fire College**

Course covering topics dealing with Chemistry of Fire, Spontaneous Combustion, Building Construction, Interviewing and Statement Taking, Vehicle Fires, Comprehensive Fire Investigations, Environmental Impact, Explosion Investigation, Clandestine Laboratory Fires, Origin and Cause, Criminal Code and Other Related Statutes, Roles and Responsibilities and the FPPA, Search Warrants, Motives, Fraud, NFPA 921, Incendiary Devices, High Temperature Accelerants as well as Related Case Studies.

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(This standard identifies the professional level of performance required for Fire Investigators. It specifically identifies the job performance requirements necessary to perform as a Fire Investigator).

(March 2009 – 15 days)

April 2009 – present – practical field experience)

(March 2011 – Written exam)

(Refresher - 2012 – 15 days)

## **NFPA 921 Certified Fire and Explosion Investigator (2012 – 5 day)**

Topics covered included the legal requirements to conduct a fire scene examination, fire chemistry, fire pattern analysis, identifying and collecting physical evidence, origin and cause determination, fire suppression techniques. This course also consisted of participating in five live burn scenarios' and a practical scene examination.

## **National Forum on Forensic Evidence in Fire Investigations: Criminal and Civil Proceedings (2011 – 1 day)**

Expert panel examining key challenges and cutting edge issues within the fire investigation field. Keynote speakers include John LENTINI (Certified Fire Investigator), The Hon. Justice Stephen GOUDGE (Court of Appeal for Ontario) and Chris WILLIAMS (Assistant Deputy Fire Marshal, Office of the Fire Marshal, Ontario).

## **Investigation of Appliances and Small Equipment Failures Course (2010 – 1 day) –**

Canadian Association of Fire Investigators

Toronto Police Association

Course covering topics such as how to identify failures in common household appliances, current recalls and design of new energy efficient appliances, how to identify types of light fixtures and how they are designed to operate and end of life. Other topics included new trends and products in HVAC and issues associated with mechanical devices in confined compartments.

## **ISN Interviewing and Interrogation Course (2010 – 3 days)**

Peterborough Police Service

Course covering topics as Law Relevant to Interviewing, Cognitive Interviewing, Confession Techniques, Detecting Deception, Interviewing Strategies – Behavioral Questioning, Personality Considerations/Assessments, False Confessions and Interviewing the Mentally Ill.

## **Death Investigation Course (2010 – 5 days)**

Durham Regional Police - Police Learning Centre

Course covering topics dealing with Attempted Suicide, Coroners Act, Forensic Pathology, Pediatric Death Investigations, Water Recoveries, Death Scene Management and Security, Archaeological Forensic Recovery of Remains, Equivocal Deaths and applicable case law.

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## **General Investigation Techniques (2009 – 10 days)**

Durham Regional Police - Police Learning Centre

Course covering topics dealing with Crime Scene Management, Canvassing, Interviewing and Interrogation, Forensic Identification, Operational Planning, Evidence Collection, Notebooks, Search and Seizure with and without warrant, Eyewitness Identification, Terrorism and applicable case law.

## **Forensic Recovery of Human Remains (2009 – 5 days)**

Ontario Police College

Course covering topics dealing with Forensics, Forensic Recovery of Surface Scattered Human Remains and Clandestine Burials, Forensic Anthropology and the Fatal Fire Victim, Forensic Recovery of a Large Vehicle Crash Site, Animal Scattering Patterns and applicable case law.

## **Origin and Cause Determination (September 2004 – 3 days)**

Port Colborne, Ontario – Ontario Fire College

Topics included:

- Office of the Fire Marshal (Fire Patterns & Cause Determination)
- Forensic Investigators (Evidence Identification & Collection)
- Crime Scene Management, Insurance Investigations
- Private Sector Fire Investigations
- Conduct live burn scene examinations
- Car Fire examinations
- Fire pattern demonstrations

## **St. John Ambulance – Standard First Aid/ CPR (2011 – 3 days)**

Cobourg, Ontario – St. John Ambulance

## **PRESENTATIONS**

### **Origin and Cause Presentation and duties of the Ontario Fire Marshal Fire Investigators**

Durham College – Fire and Life Safety Program (November 2013 – 4 hours)

Oshawa, Ontario

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Ignition Sources, Hording, and Fire Department Overhaul, Note taking, PPE, Safety at fire and explosion scenes, Judicial system in Canada.

### **Origin and Cause Presentation**

Brock Township Fire Department – Station #3 (February 2012 – 2.5 hours)

Brock Township Ontario

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Ignition Sources, Hording, and Fire Department Overhaul and note taking.

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**Origin and Cause Presentation** – Fleming College, Law and Justice Students –  
Peterborough (February 2012 – 2.5 hours)

Peterborough, Ontario

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Ignition Sources, Hording, and Fire Department Overhaul and note taking, career planning, volunteering in the Community.

**Origin and Cause Presentation**

Brock Township Fire Department – Station #1 (January 2012 – 2.5 hours)

Brock Township, Ontario

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Hording, and Fire Department Overhaul and note taking.

**Origin and Cause Presentation**

Port Hope Fire Department – Station #2 (September 2011 – 2 hours)

Port Hope, Ontario

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Hording, and Fire Department Overhaul.

**Origin and Cause Presentation**

Port Hope Fire Department – Station #3 (October 2011 – 2 hours)

Port Hope, Ontario

Topics included:

- Scientific Method, Sources of Ignition, Fire Patterns, Explosions, Evidence Collection, Fuel Sources, Hording, and Fire Department Overhaul.

**DEMONSTRATION BURNS**

ONTARIO POWER GENERATION – WESLEYVILLE SITE

June 2013

- Set up and burn five live burn cells involving common furnishings found in residential dwellings, using accelerants in two cells and an open flame to combustibles in three – sponsored by FESTI

ONTARIO FIRE COLLEGE

June 2013

- View and determine fire origin and cause of fires previously set in four burn cells using common residential materials (bedding, linen, furnishings)

October 2012

- Four live burns within the burn house, donned SCBA and in building at the ignition of the fires and observe the growth of the fire, smoke and thermal

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layer (750 degrees C.). Observed chimney effect and how thermal layer fills ceiling layer and drops downward to floor level as fire evolves. Observed various fire extinguishing methods including hydraulic, positive and negative pressure ventilation

- Ignition of cooking oil on the surface of a 240VAC stove experiment
- Live investigation of automobiles – determine origin and cause of fire within automobile

## August 2012

- Determining flash point of a Volatile Liquid (gasoline)
- Spontaneous combustion experiment
- Live burns using cotton and oxygen enriched cotton clothing
- Smoldering cigarette experiment in various pieces of polyurethane furniture

## October 2011

- Effects on natural gas valve on appliances when pressure increased and propane (LPG) used as fuel

## June 2011

- Multiple live vehicle burns accelerated with an accelerant and paper products. Two vehicles burnt with engine running to observe vehicle electronics and engine performance failures as fire spreads
- Perform vehicle fire investigation on vehicle previous burnt at the OFC. Process vehicle and determine area of fire origin and effects of ventilation and fire spread
- Perform vehicle fire investigation on previously burnt vehicle with two pigs in the vehicle. Identified pig remains in the vehicle and systematic removal of remains using X-Ray equipment and assigned tools

## November 2010

- Exercise in recovery of smoke alarm components – Process burn cell utilizing hand tools, digital photography and hand written field notes. Exercise required the use of OFM issued portable sifter to locate small components from a variety of smoke alarms

## October 2009

- Live compartment burns at OFC – Flashover demonstration of wood shed style structures

## March 2009

- Heat transfer demonstration (Bunsen burner on metal rod)
- Ignition temperatures of various sources (candle, natural gas, propane torch, match flame, cigarette)

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- Determining flashpoint of a Volatile liquid (gasoline)
- Spontaneous combustion experiment
- Car fire total burn – surface burn pattern demonstration
- Oxygen enriched clothing fire
- Paper fire – light bulb as ignition source
- Cloth fire – light bulb as ignition source
- Couch – simulated careless smoking fire
- Living room Furniture – accelerated by Contact Cement
- Surface burn pattern demonstration – Linoleum and carpet
- Surface burn pattern demonstration – Gasoline on plywood linoleum and carpet
- Mixing pool chlorine and triethylmene
- Glycerol and potassium permanganate in an aluminum baking pan
- Potassium chlorate and equal parts sugar and hydrochloric acid in an aluminum baking pan
- Living Room couch – accelerated by Contact Cement
- Car fire – Passenger Compartment – accelerated by newspaper
- Car fire – multiple points of origin – accelerated by contact cement
- Car fire – Total Burn
- Car fire – Accelerated w/potato chips
- Car fire – Accelerated w/contact cement, total burn
- Living room – simulated smoking fire in couch

## ONTARIO POLICE COLLEGE

June 2009

- Pig fire – Burn maggots and pig using gasoline and igniting with road flare

May 2009

- Living Room – couch fire accelerated by BBQ fluid
- Bedroom – simulated electrical fire – clothes iron
- Living room – Contact Cement Trailer on furniture
- Bedroom – bedding accelerated w/newspaper
- Bedroom – bedding & mattress accelerated w/contact cement
- Car fire – Cargo compartment/trunk/newspaper trailer, accelerated w/contact cement
- Bedroom – simulated smoking fire in mattress
- Kitchen – accelerated w/newspaper & BBQ starter
- Car fire – Passenger compartment/accelerated w/newspaper and BBQ starter
- Car fire – Passenger compartment/accelerated w/potato chips
- Car fire – Passenger compartment/accelerated with brake fluid and granular chlorine



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- Car fire – Passenger compartment/accelerated with BBQ starter fluid on leather upholstery
- Car fire – Passenger compartment / using newspaper trailer, accelerated w/electrical short in heater motor
- Car fire – Passenger compartment using black powder and ignited with road flare
- Car fire – engine compartment/ using shredded newspaper and BBQ lighter fluid ignited by crossing ignition wires and creating a backfire through throttle body
- Car fire – engine compartment/ignited by using brake fluid and granular chlorine