



Group

Chris Rennie

CFI, CFII, CCFI Level C, CFEI, NFPA 1031 Level II
Fire and Explosion Investigator

OFFICE

Burlington

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CONTACT

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Chris is a Certified Fire and Explosion Investigator and Certified Level II Fire Inspector with over 18 years of experience at the London Fire Department, where he worked in fire suppression, inspections, investigations, and as Acting Chief Fire Prevention Officer. Since 2021, he has served as a Fire Prevention Officer and Investigator with the Municipality of Southwest Middlesex Fire Department.

In addition to his operational work, Chris is a professor at Fanshawe College, teaching fire inspection and investigation in the Fire and Life Safety program and Public Safety Fundamentals. He is the Lead Instructor for the NFPA 1033 Fire Investigation Course with the Ontario Fire College and delivers organization-wide fire inspection and investigation training for the London Fire Department. He also teaches the NFPA 921 Course “Guide for Fire and Explosions” with IAAI Ontario.

Chris specializes in fire department litigation, providing expert analysis in fire origin and cause, suppression tactics, and response protocols. His work supports legal teams and municipalities in defending or prosecuting claims related to fire department conduct, equipment failure, and operational decision-making. With a deep understanding of NFPA standards, the Ontario Fire Code, and departmental guidelines, policies, and procedures, he bridges the gap between fire inspection/investigation and the legal complexities surrounding fire department liability.

CERTIFICATIONS

- CCFI LEVEL C – Canadian Certified Fire Investigator (2025)
- NFPA 1033 – Certified Fire Investigator (CFI) (2018)
- NFPA 1033 – Certified Fire Investigator Instructor (CFII) (2019)
- NFPA 921 – Certified Fire and Explosion Investigator (CFEI) (2010)
- NFPA 1031 – Certified Fire Inspector Level I 2018)
- NFPA 1031 – Certified Fire Inspector Level II 2019)
- NFPA 1041 – Fire Service Instructor (2021)
- NFPA 1021 – Fire Officer Level I (2022)
- NFPA 1001 – Fire Fighter I & II (2003)
- NFPA 1002 – Apparatus Operator (2003)
- NFPA 1006 – Swift/Ice Water/Rope Technician/Confined Space (2004)
- NFPA 1072 – Hazardous Materials Technician (2016 Re-cert)
- NFPA 1521 – Incident Safety Officer (2017)
- NFPA 1035 – Public Educator Level II (2018)
- NFPA 1033 – Fire Investigator (2019)
- NFPA 1051 – Wildland Firefighter (2019)
- NFPA 1521 – Incident Safety Officer (2017)
- NFPA 96 – Commercial Cooking Operations (2018)
- IMS 100 – Introduction to the Incident Management System (2020)
- TAPP-C Arson prevention Program (2025)

TECHNICAL AFFILIATIONS

- Member – International Association of Arson Investigators (IAAI)
- Member – National Association of Fire Investigators (NAFI)
- Member – Canadian Association of Fire Investigators (CAFI)
- Fire Service Women Ontario (FSWO) (2022-Present)
- Member – Ontario Municipal Fire Prevention Association of Ontario (OMFPOA)
- Camp Molly – Instructor, Fire Inspection/Investigation
- Camp FFIT – Instructor, Fire Inspection/Investigation

PROFESSIONAL EXPERIENCE

Fire and Explosion Investigator

OCI Group

April 2024 – Present

- Assigned to attend fire and explosion scenes using methodology to conduct origin and cause investigations
- Conduct joint examinations with other invested stakeholders
- Retain evidence for X-ray examination
- Collect evidence and send to a laboratory for testing
- Work with and report directly to Insurance Adjusters and Lawyers

Acting Chief Fire Prevention Officer

London Fire Department

2017 – Present

- Level II Fire Inspector and Certified Fire Investigator CFI
- Supervise 10 staff members, responsible for quality assurance of inspections and conducting employee evaluations
- Prepare statistical information on team performance in both fire inspections and investigations
- Supervise and conduct fire investigations based on established fire investigation methodology regarding the origin, cause and circumstances of fires
- Responded to over 400 structure fires to determine cause and origin using fire investigative methods and provided findings and recommendation reports based on data collection and analysis
- Conduct technical reviews of fire inspections and fire investigations.
- Assisted investigators from the Office of the Fire Marshal on several major case incidents
- Attended post-mortem examinations
- Developed a new training manual and provide in-house training for new staff members for Inspections and Investigations within Fire Prevention
- Develop and deliver inspection and investigation training to fire suppression recruits and individuals in the Captain and Senior Officer training programs
- Develop and approve Fire Safety Plans for all occupancy types of buildings
- Conduct plans review examinations
- Responsible for assisting and processing complaints from suppression staff and the public

- Responsible for scheduling staff training and daily tasks
- Reviewing Inspection Orders, Fire Marshal reviews, and assist with staff members with prosecutions
- Develop and review Standard Operating Guidelines and Administrative Policy directives
- Review site plans and drawings for new development and buildings in the permit process
- Review and analyze Environics data to determine fire risks in various demographics and locations in London
- Developed and deliver new employee on-boarding training
- Provide a welcoming, professional and safe learning environment
- Prepare and deliver presentations to staff and stakeholders
- Developed and participate in mentorship agreement with Fanshawe College

Fire Prevention Officer/Investigator

Municipality of Southwest Middlesex Fire Department

2021 – Present

- Recruited to review Ontario Fire Marshal Audit delivered to SWMFD in regards to improvement of our fire prevention program
- Participate and review the Southwest Middlesex Fire Master Plan
- Disciplined to work from a home office
- Implement changes within the Fire Prevention Department at SWMFD
- Review site plans and drawings for new development and buildings in the permit process
- Develop and review Standard Operating Guidelines and Administrative Policy directives
- Conduct building Inspections utilizing the Ontario Fire Code
- Coordinate public education programs to promote fire protection and prevention
- Designed and executed an “after the fire” program
- Conduct Fire Investigations using the scientific methodology
- Develop and approve Fire Safety Plans in accordance with the Ontario Fire Code

Instructor

Fanshawe College
2021 – Present

- Instructor in Fire Inspection and Fire Safety Education and Public Safety Fundamentals
- Develop and deliver lesson plans following NFPA 1033 and NFPA 921
- Teach following lesson plans for Fire investigations, Authority, Fire Dynamics, Systematic Approach, Scientific Method, Fire Pattern analysis, Developing and Testing Hypotheses, Evidence Collection, prepare writing reports, and Courtroom Procedures
- Construct a burn cell, guide students how to effectively determine origin and cause using the scientific method
- Responsible for review assignment and reports, providing constructive feedback.
- Grading and evaluating students on performance
- Provide a welcoming, professional and safe learning environment
- Conduct and record field testing the effects of fire on various materials

Instructor

Ontario Fire College
2019 – Present

- Lead Instructor for the NFPA 1033 Fire Investigator course
- Prepare and deliver training to student from Police Departments, Fire Departments, and Insurance companies
- Responsible for providing a welcoming and safe environment for the classroom and training ground
- Travel to various Regional Training Centers throughout the province
- Assist/ guide/ mentor students through the 40 hour online component of the course
- Provide direction for the construction of burn cells, prepare ignition sequence, and coordinate suppression operations
- Conduct test burns/field testing on various materials and record their reactions under different stages of fire conditions
- Prepare lesson to ensure all JPR's (Job Performance requirements) plans for approval from management
- Prepare in-class presentations using power point and coordinate student presentations

Firefighter

London Fire Department
2006 – 2017

- Conduct thorough examination and testing of personal protective equipment and tools and equipment
- Conduct circle check of fire apparatus and test fire apparatus pump
- Certified technician on all three of the London Fire Department's special rescue teams. (Rope Team/Water Team/Hazmat Team)
- Voted Team Leader on the Water Rescue and Rope Rescue teams where I was responsible for coordinating, conducting, and recording training
- Drive fire apparatus in a safe manner to emergency scenes on roadways and highways
- Participate in on-going training such as live fire, vehicle extrication, water rescue, high angle rescue, HAZMAT, and maintain re-certifications of fire suppression skills
- Attend both secondary and primary schools to speak/demonstrate fire safety

FURTHER TRAINING & EDUCATION

Advanced Arson Investigation (Michigan State Police/ATF)

- Attended 4-day course specific to Arson Investigations

NFPA 921 Refresher Course

Trenton, Ontario

Investigating Smoking Fires IAAI

Kingston, Ontario

Clarence Rockland Fire Department

- Recorded testing of ignition sequence of materials and liquids
- Testing was conducted using matches, lighters, and road flares as ignition sources

Canadian Association of Fire Investigators (CAFI)

- Certified Fire Investigator Level C

TAPP-C Vanier Children Services

London, Ontario

- Arson Prevention Program for children and teens

Ontario Fire Marshal and Emergency Management

- Participated in various spring and fall training
- Various topics/Case Studies

Advanced Fire Dynamics Course

Markdale, Ontario

- Fire Dynamics, Fire Scene Analysis, Case Studies

Richmond Hill Fire Department

Richmond Hill, Ontario

- Recorded Test burns with polyurethane foam using cigarettes, open flame, and shredded paper

Grimsby Fire Service

Grimsby, Ontario

- Recorded test burns on discarded smoking materials

Ontario Police College

Aylmer, Ontario

- Recorded test burns of various materials and ignition sources

Canadian Association of Fire Investigators

Niagara Falls, Ontario

- Attended 3-day seminar on Fire Investigations

Ontario Municipal Fire Prevention Officers Association

London, Ontario

- Speaker/Presenter/Attendee

Lithium-Ion Battery Fire and Explosion Awareness Training, Toronto Fire Service

Toronto, Ontario

Corporation of the City of London

London, Ontario

- Media Training, Labour relations, Dealing with difficult people, Occupational

Health and Safety Level 1, Workplace Harassment/Discrimination, Code of Conduct, Respectful Workplace

Ontario Fire Marshal and Emergency Management (Webinars)

- Hoarding, Part 3 Summons, Part 1 Provincial Offenses Charges, Inspection Orders, Section 15 Order to Close, Human Trafficking Awareness, Fire Investigation Part 1, Fire Investigation Part 2

Origin and Cause Inc. (Webinars)

- Interviewing 101, Arc Mapping, Appliance Fire and Food Claims, Fire Investigation 101 – A Fire Investigator's Process and Mentality, Fire Investigation 101 Careless Smoking, Misuse of Electrical Equipment, Keeping up with Fuel-Burning Equipment Fires

CFI Trainer (Online Training)

- Career Path in Fire Investigation, Critical Evaluation and Testing of Commonly Reported Fires, Documenting the Event, ARC Mapping, Ethics and the Fire Investigator, Fire Flow Analysis, Introduction to youth-set Fires, Motor Vehicle Fires, Introduction to Evidence, Fire Investigations for Fire Officers, Basic Electricity, Effective Investigation and Testimony, Insurance and the Fire Investigation, Explosion Dynamics.

** A full transcript can be provided **

Fire Prevention Officers Association of British Columbia

- Certification Proctor and Instructor
- Online Instructor for 1031 certification program
- Proctor for written and practical examinations

Ontario Municipal Fire Prevention Officers Association

Richmond Hill, Ontario

- 2025 Fire Prevention Symposium
- 2024 Fire Prevention Symposium

London Fire Department

London, Ontario

- Recorded and conduct test burns on various materials
- Testing conducted on various fuel packages and ignition sources
- Test were timed and recorded

Western Fair Association/London Health Sciences Centre

City of London

- Assist with planning and design of London's COVID-19 field hospital. Ensure compliance of the Ontario Fire Code, develop a Fire Safety Plan, Develop response plans for suppression, plans for evacuation, and fire investigations.

Coldstream Fire Services/Ontario Fire Marshal's Office/University of Toronto

- Conducted test burns with polyurethane foam using equal amount of fuel packages at different distances to measure heat flux. The test burns were conducted in coordination from students of the University of Toronto

LECTURES AND TRAINING DELIVERED

London Fire Department Training (2025)

- Fire Code and Fire Investigation Training – Senior Officers (February)
- Fire Code and Investigation Training – Recruits (March)
- Burn Cell Investigation – Fanshawe Fire Investigation Students

OCI Group/IAAI Ontario

- NFPA 921 Course (May 2025)

Ontario Fire College, Various Regional Training Centres (2025)

- NFPA 1033 Fire Investigator – Hastings, Ontario (March 2025)
- NFPA 1033 Fire Investigator – Clarence Rockland (April 2025)
- NFPA 1033 Fire Investigator – Elgin Middlesex (May 2025)
- NFPA 1033 Fire Investigator – Richmond Hill (May 2025)
- NFPA 1033 Fire Investigator – Lambton Shores (June 2025)

Fanshawe College (2025)

- Professor – Fire Code Courses in the Fire Inspection and Fire Safety Education Program
- Professor – Fire Investigation in the Fire Inspection and Fire Safety Education Program

London Fire Department – Burn Cell (2024)

- Annual Burn cell scenario – Prepare ignition sequence and coordinate suppression for the burn a cell for fire investigation training. The cell is used for fire investigators, recruits, captains, and senior officers

London Police Services (February 2024)

- Deliver fire investigation training to all members of the Criminal Investigation Division

Fanshawe College (April 2024)

- Courtroom procedures/ CV/ Discovery Hearings/ Subrogation/ testifying as an expert for both the Fire Investigator and Fire Code Expert in the Court Support Services program

Peel regional Police Service (April 2024)

- 2-day fire investigation training to all members of the criminal Investigation Division

Lambton Shores Fire Service (June 2024)

Deliver Fire Code and Fire Investigation training to Incident Commanders.

London Fire Department Training (2024)

- Fire Code and Investigation Training – Captains – February/December
- Fire Code and Investigation Training – Senior Officers – April/October

Ontario Fire College, Various Regional Training Centres (2024)

- NFPA 1033 Fire Investigator – Grey County RTC (April)
- NFPA 1033 Fire Investigator – Grimsby Fire Service (April)
- NFPA 1033 Fire Investigator – Online
- NFPA 1033 Fire Investigator – Richmond Hill Fire Service (September)
- NFPA 1033 Fire Investigator – Thunder Bay Fire Service September)
- NFPA 921 – Guide for Fire and Explosion Investigations (November)

Fanshawe College (September – April 2024)

- Professor – Fire Code Courses in the Fire Inspection and Fire Safety Education Program
- Professor – Effective Writing in the Public Safety fundamentals Program

London Fire department Burn cell (2023)

- Annual burn cell scenario – Prepare ignition sequence and coordinate suppression for the burn cell for fire investigation training. The cell is used for fire investigators, recruits, captains, and senior officers

London Police Services (February 2023)

Deliver fire investigation training to all members of the Criminal Investigation Division.

London Fire Department (November 2023)

- Develop and deliver accredited training for maintaining NFPA 1033 and NFPA 921 certifications for London Fire Prevention Officers. 3 Day in-house training or evidence collection, report reviewing, burn cell excavation and analysis, arc mapping, appliance fires, electrical fires, warrant execution.

Fanshawe College (April 2023)

- Courtroom procedures/CV/Discovery Hearings/Subrogation/testifying as an expert for both the Fire Investigator and Fire Code Expert in the Court Support Services program

London Fire Department Training (2023)

- Fire Code and Investigation Training – Recruits (March/July)
- Fire Code and Investigation Training – Captains (April/October)
- Fire Code and Investigation Training – Senior Officers (January/August)

Ontario Fire College, Various regional Training Centres (2023)

- NFPA 1033 Fire Investigator – Huntsville (May)
- NFPA 1033 Fire Investigator – Richmond Hill Fire Service (April)
- NFPA 1033 Fire Investigator – Leeds & the Thousand Islands – Online (June)
- NFPA 921 – Guide for Fire and Explosion Investigations – Toronto (July)
- NFPA 1033 Fire Investigator – Richmond Hill Fire Service (September)
- NFPA 1033 Fire Investigator – Richmond Hill Fire Service (October)
- NFPA 1033 Fire Investigator – Ontario Police College (October)

London Middlesex Housing Corporation (2023)

London, Ontario

- Deliver training to property managers for responsibilities and Fire Code compliance

ARKaid Mission Services/London Cares (2023)

London, Ontario

- Deliver training to property managers for responsibilities and Fire Code compliance

London Police Service (2023)

- Presentation on Municipal Fire Investigation – Uniform Division (September)

Fanshawe College (2023)

- Professor – Fire Code Courses in the Fire Inspection and Fire Safety Education Program
- Professor – Fire Investigation in the Fire Inspection and Fire Safety Education program

London Fire Department Training (2022)

- Fire Code and Investigation Training – Captains (February/April/September)
- Fire Code and Investigation Training – Recruits (May/November)
- Fire Code and Investigation Training – Senior Officers (March/April/September)

London Middlesex Housing Corporation (2022)

London, Ontario

- Deliver training to property managers for responsibilities and Fire Code compliance

ARKaid Mission Services/London Cares (2022)

London, Ontario

- Deliver training to property managers for responsibilities and Fire Code compliance

Fanshawe College (2022)

- Professor – Fire Investigation in the Fire Inspection and Fire Safety Education program

Ontario Fire College, Various Regional Training Centres (2022)

Mix of Shadowing and Lead Instructor in person and on-line

- NFPA 1033 Fire Investigator – Leeds & the Thousand Islands (April)
- NFPA 921 – Guide for Fire and Explosion Investigations, Shadow Instructor (May)
- NFPA 1033 Fire Investigator – Richmond Hill Fire Service (August)
- NFPA 1033 Fire Investigator – Richmond Hill Fire Service (September)

- NFPA 1033 Fire Investigator – Ontario Police College (October)
- NFPA 921 – Guide for Fire and Explosion Investigations – Shadow Instructor

London Police Service (2022)

- Presentation on Municipal Fire Investigation – Uniform Division (September)

London Middlesex Housing Corporation (2021)

London, Ontario

- Deliver training to property managers on responsibilities and Fire Code compliance

ARKaid Mission Services/ London Cares (2021)

London, Ontario

- Deliver training to property managers on responsibilities and Fire Code compliance

Ontario Fire College (Various Regional Training Centres (2021)

** Shadow Instructor for all courses listed**

- NFPA 1033 Fire Investigator – Richmond Hill (May)
- NFPA 1033 Fire Investigator – Grimsby (September)
- NFPA 1033 Fire Investigator – Mississippi Mills (October)
- NFPA 1033 Fire Investigator – Grimsby (November)

London Fire Department (2021)

- Fire Code and Fire Investigation Training – Recruits (April/October)

Ontario Fire College (Various Regional Training Centres (2020)

** Shadow Instructor for all courses listed**

- NFPA 1033 Fire Investigator – Richmond Hill (May)
- NFPA 1033 Fire Investigator – Grimsby (November)
- NFPA 1033 Fire Investigator – Grimsby (November)

London Middlesex Housing Corporation (2020)

London, Ontario

- Deliver training to property managers on responsibilities and Fire Code compliance

ARKaid Mission Services/ London Cares (2020)

London, Ontario

- Deliver training to property managers on responsibilities and Fire Code compliance

London Fire Department Training (2019)

- Develop and deliver Fire Code/inspection and Investigation Training to 8 new staff members in the Fire Prevention Division – November

Ontario Fire College Grimsby Regional Training Centre (2019)

- NFPA 1033 Fire Investigator – Shadow instructor – May
- NFPA 1033 Fire Investigator – Shadow Instructor – October

London Fire Department (2019)

- Assisted with Fire Code and Fire Investigation Training
- Conducted field test burns with cigarettes on various materials
- Conducted field test burns with cigarettes placed specifically near tubing connected to an oxygen machine and recorded results – February

Ontario Fire College, Grimsby Regional Training Centre (2018)

NFPA 1033 Fire Investigator – Student

London Fire Department (2018)

- Conducted field test burns with cigarettes on various materials
- Cigarette fire tests were conducted with government-regulated tobacco products compared to contraband cigarettes
- Video recording done by CTV news, recorded results and conducted post-field test interviews with the news anchor

COMMITTEE MEMBERSHIP

- Training Committee Member – Develop and execute the training program for new Fire Prevention Officers and Investigators (2019 – Present)
- Health and Wellness Committee, London Fire Service – Present
- OMFPOA – Committee Member for London as we were granted the opportunity to host, requested to be a speaker (2021 – 2022)
- ICO/LFRS – Actively involved in testing and providing feedback on LFS new reporting system (2021)
- Joint Health and Safety Committee Member, London Fire Service (2016 – 2021)
- Joint Health and Safety Committee Member, Corporation of the City of London (2004 – 2006)
- Joint Health and Safety Committee Member, Liquor Control Board of Ontario (2000 – 2008)
- OPSEU London Area Union Representative, Liquor Control Board of Ontario (2002 – 2008)
- Encampment Strategy Team, London Ontario

COURT EXPERIENCE

Testified as a qualified expert witness for the Crown in Criminal Court

Testified as a qualified expert witness for the Crown in Provincial Offenses Court

Testified as witness in Landlord Tenant Board Tribunals