

**Ram Haddad, P.Eng., B.Eng., B.Sc., C.F.E.I, C.V.F.I, CCFI**  
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## **RESUME of Ram Haddad, P.Eng.**

### ***Forensic/Chemical Engineer***

#### **SPECIALIZED PROFESSIONAL COMPETENCE**

##### **Fire Investigation**

Origin and Cause Investigation, Fire Scene and Evidence Documentation, Arson Investigation, Explosion Investigation, Failure Analysis, Wood, Building and Fire Code Assessment (Compliance), Egress, Fire Suppression, Flame Spread Testing and Analysis, Motor Vehicle Fire Investigation, Equipment Fire Cause Assessment, Gas, Oil and Wood Furnace Evaluation, Fire Spread Analysis, Product Liability, Subrogation, Chemical Reaction Reconstruction, Spontaneous Combustion, Natural Fire Cause.

##### **Forensic Laboratories**

Specialized knowledge in Thin Layer Chromatography, Gas Chromatography, Mass Spectrometry, and IR Technologies. Laboratory examinations, Chemical analysis of pesticides, toxic materials, blood, and body fluids. Crime and Fire scene Reconstruction, Burn pattern interpretation of fires. Post Blast Investigation (PBI) to determine explosion source and cause for fire, Arson, explosions, applications, and explosives effects, IED component recognition and evidence collection. Perform Chemical and Industrial Process Investigation, Fire Spread, and Corrosion Analysis.

##### **Chemical Engineering**

Industrial Process Evaluation and Design, Analytical Chemistry, Thermodynamics and Heat Transfer, Procedure Analysis and Design, Classification, Ion Exchange, Waste Water Treatments and chemical analysis using BOD5, VSS, TSS, DS, and Ammonia Nitrogen tests, Q&M Laboratory techniques.

##### **Professional Engineer**

Registered P.Eng. in Ontario (PEO), Alberta (APEGA), Engineers Nova Scotia, Newfoundland & Labrador (PEGNL), Northwest Territories & Nunavut (NAPEG), New Brunswick (APEGNB), Engineers Geoscientists Manitoba (APEGM).

#### **ACADEMIC BACKGROUND**

- Bachelor of Science (Honour), State University of New York, USA, 2007.
- Bachelor of Chemical Engineering, Jordan University of Science and Technology, 1996.

## **ADDITIONAL COURSES & PROFESSIONAL DEVELOPMENT**

- NAFI, National Fire Investigation Main Training, Eastern Kentucky University, USA.
- Vehicle Fire, Arson & Explosion Investigation Science & Technology Training. N.A.F.I & Scott County Fire Department, Kentucky, USA.
- Advanced Fire Dynamics, Arc Mapping & Burn Cell Investigation, Continuing Education Certificate. GTAA FESTI, Toronto, Canada.
- Post Blast Investigation-1, United States Government, USA.
- Advanced Forensic Technicians, United States Government, USA.
- Introduction to PBI / Forensic Techniques, United States Government, USA.
- Post Blast Investigation -2, United States Government, USA.
- Advanced Electronics Investigation, United States Government, USA.
- Examination Skills for Engineering Graduate, University of Toronto, Canada.
- Forensic Photography, Royal Police Academy.
- Crime Scene Investigation, Royal Police Academy.
- Waste Water Treatment Training, Suez Environment.
- Radiation Protection.
- Civilian Police & U.N Peace Keeping Operations, United Nations
- Stress Management, United Nations.
- Customer Relationship Management, Canada.
- Police Foundation, Royal Police Academy.

## **EMPLOYMENT BACKGROUND**

### **Envista Forensics, Forensic Project Engineer, Mississauga, Canada.**

- Serves as a Project Engineer on forensic engineering projects from project initiation to project close out completing projects and reports in a timely and accurate manner. within the specified budget.
- Perform field investigations to identify clues and potential sequence of events that could lead to failure and/or performance problems.
- Determine possible destructive and non-destructive testing necessary to assist investigations.
- Determine project scope of work and estimated costs as required.
- Perform engineering observations (at “forensic work sites”) and directs subcontractors and design consultants as required.
- Research historical project documentation, codes, standards, and past analyses for various construction materials, products, and systems
- Perform destructive and non-destructive field testing to supplement investigations.
- Prepares engineering reports from project data and field observation notes.
- Prepares laboratory testing assignments for field samples in accordance with the testing program established in the proposal.
- Dictates, details, and photographs findings of field observations.
- Conducts engineering analysis of field data and laboratory test results supporting the preparation of report data.

- Participates in report preparation as required to satisfy client's needs.
- Assist in preparing preliminary construction budgets and schedules.
- Through personal professional development and working with senior staff, develops a working understanding of applicable standards, specifications, and engineering practices to develop competence to review assigned engineering reports and construction documents.
- Participate in development and implementation of corporate marketing plans.

**R. J. Shirer & Associates Inc. "Consulting Forensic Engineers", Forensic Engineer, CFEI, CVFI, Mississauga, Canada.**

- Perform fire and explosions investigations at commercial, industrial & residential locations.
- Perform Failure Analysis and forensic assessment for different equipment failures.
- Perform site examinations relating to loss and failure.
- Test the operation of systems and equipment.
- Assist in developing and preparing engineering drawings and simulations from field measurements, sketches, engineering calculations, specification sheets, and other data.
- Manage projects according to client-approved scopes of work, and deliver high-quality reports on time and within budget.
- Perform Environmental (Mould) testing.
- Directly liaise with clients on a regular basis and provide updates throughout the investigation.
- Review plans and specifications to determine whether they meet relevant guidelines, codes, and other regulations.
- Coordinate with Fire and Police Departments to request information related to investigations.
- Prepare technical reports based upon sound investigations and analysis.
- Expert opinion testimony for Trials.

**Forensic Science Laboratories, Forensic Engineer & Post Blast Investigation (PBI).**

- Post Blast Investigation (PBI) to determine explosion origin and cause for fire, Arson, explosions, Fire and explosion effects and patterns, IED component recognition and evidence collection, Fire and Crime scene Reconstruction.
- Perform Chemical and Industrial Process Investigation, Fire Spread, and Corrosion Analysis.
- Specialized knowledge in Thin Layer Chromatography, Gas Chromatography, MS Spectrometry, and IR Technologies.
- Carrying out laboratory examinations, Chemical analyses for pesticides, toxic materials, blood, and body fluids.
- Comparing and interpreting the crime scene physical evidence.

**United Nations (UN), Professional Standards Unit, CIVPOL Investigator, Civilian Police HQ.**

- Performing background investigations for new members by interviewing, interrogating, or interacting with witnesses to collect human intelligence.

- Prepare comprehensive written reports based on research, collection, and analysis of collected data with recommendations and conclusions for hiring purposes.
- Performing investigation for the police members and to commence disciplinary actions and corrective measures to prevent further misconduct or poor performance.

#### **Eagle Distillery Company, Chemical Engineer, Quality Control Engineer.**

- Conducting Chemical analysis for different spirit productions and wines.
- Performing chemical tests and treatments for water softeners to be used in production.
- Producing Ethanol from fermented materials using high quality distillation procedure.
- Specialized knowledge in Gas Chromatography techniques for alcoholic products.
- Conducting quality control inspections for all alcoholic and spirit products.

#### **PROFESSIONAL SOCIETIES**

- Professional Engineers Ontario (PEO).
- The Association of Professional Engineers and Geoscientists of Alberta (APEGA).
- Engineers Nova Scotia.
- Professional Engineers & Geoscientists Newfoundland and Labrador (PEGNL).
- Northwest Territories and Nunavut Association of Professional Engineers (NAPEG).
- Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB).
- Association of Professional Engineers and Geoscientists of Manitoba (APEGM).
- Ontario Society of Professional Engineers (OSPE).
- Canadian Association of Fire Investigators (CAFI).
- National Association of Fire Investigators (NAFI).
- Member with Association of Certified Fraud Examiners (ACFE).
- International Association of Fire Investigators (IAFI).
- Executive Member with Canadian Association of Fire Investigators (CAFI), Chapter 006.

#### **HONOURS AND AWARDS**

- United Nations “Medal of Peace Service “United Nations.
- Outstanding Graduate Honors, State University of New York, USA.
- Dr. Donald Bishko Award for outstanding academic achievement, SUNY, USA

#### **CERTIFICATIONS**

- Registered P.Eng., PEO, Ontario.
- Registered P.Eng., British Columbia.
- Registered P.Eng., PEI.
- Registered P.Eng., APEGA, Alberta.
- Registered P.Eng., Engineers Nova Scotia.
- Registered P.Eng., PEGNL, Newfoundland and Labrador.
- Registered P.Eng., APEGNB, New Brunswick.
- Registered P.Eng., APEGM, Engineers Geoscientists Manitoba.

- Registered P.Eng., NAPEG, Northwest Territories and Nunavut.
- Certified Fire Investigator C.F.E.I.
- Certified Vehicle Fire Investigator C.V.F.I.
- Canadian Certified Fire Investigator C.C.F.I.