

CANNEY BROOK FORENSIC ENGINEERS

R. CRAIG WILLIAMS, PE CFEI CFI



**MAINE STATUTES & ETHICAL CONSIDERATIONS
RETENTION OF EXPERTS**

R. CRAIG WILLIAMS PE CFEI CFII

- * Licensed Professional Engineer, PE Mechanical & HVAC (Year of Licensing 1981)
- * BS Mechanical Engineering
 - * Thermodynamics, Heat Transfer, Fluid Dynamics, Materials Science
- * MS Architectural Engineering
 - * Convection, Conduction, Radiation, Boiling and Condensation, & Numerical Methods
 - * HVAC, Acoustics, Lighting, Building Systems
- * PhD (abd) International Business – Finance, Strategy
- * 27+ Years PE -- Research, Design, Specification, Operations & Maintenance
 - * Mechanical, HVAC, Materials, Electrical, Machinery, Heavy Equipment, Combustion, Boilers, Buildings, Heat Transfer and Fluid Dynamics
- * 9 Years PE -- Forensic Engineering Expert
- * Certified Fire and Explosion Investigator & Instructor

WHY EMPLOY AN EXPERT

- * Insurance Professionals and Attorneys are charged with determining liability and recommending funding/compensation required for the loss or injury.
- * An expert is necessary to preserve and protect the interests of the insured and the insurer.
- * The expert is responsible to provide an accurate analysis and defensible opinions which may be advanced in the client's interest.

EXPERT LICENSURE

Maine law requires persons who investigate insurance losses or who provide investigative information in arbitration or to court proceedings be a licensed private investigator or professional practicing in their area of licensure.

- * Adjusters, Attorneys, CPA's, etc.
- * Private Investigators (& assistants)
- * Licensed Trade Professionals
- * Professional Engineers, Architects, Surveyors

Is employing non-licensed investigators illegal? Or negligence?

Does employing a competent licensed expert matter?

Do bad investigative outcomes matter?

Is your investigator licensed? Do you require licensure?

Is your investigator competent in the investigative area?

EXPERT COMPETENCIES

- * Did you validate the required competencies and licensure?
- * Is Maine licensure on retention documents and reports
 - * Licensed Private Investigators – Legal ability to perform investigations, no competency requirements. May be fact witness unless able to demonstrate specific expert competencies.
 - * Registered Professional Engineers - Verify specific licensure, i.e. mech, elec, struct, fire protection. Etc. Document specific consulting, research, operations knowledge & experience.
Always verify practice in required competencies (field of licensure and specific consulting and manufacturing design & operations experience in field of loss event)
 - * Years of licensed practice – consulting & manufacturing ?
 - * Years of licensed practice prior to becoming an expert ?

INVESTIGATION COORDINATION PROBLEM

- * Very different outcomes are possible with same evidence – Experts do matter
- * The Expert's Ability to Render Scientifically Accurate Opinion Should Be Challenged .
- * Improperly Licensed Investigators Should be Disqualified.
- * Investigators Without Demonstrated Competency Should Be Disqualified.

WHEN TO EMPLOY EXPERT

- * Immediately upon determining the required competencies
- * Immediately upon determining additional competencies are required.
- * Employ an “Expert” capable of competing with other experts to protect your interests, advance your interests, and dispel invalid claims.
- * Expert must provide accurate, defensible, scientific opinions.

HOW TO SELECT YOUR EXPERT SYSTEMATIC APPROACH

- * Selection of experts requires the attorney or insurance professional to adopt a systematic approach to employing their expert.
- * Use of an analytical process to define the loss event.
- * Once required competency parameters are determined the process of selection can proceed.

HOW TO SELECT YOUR EXPERT CONT.

- * Define the Loss Event & Level of Exposure
- * Identify the Scope of the Event
- * Identify Critical Elements (Building, Equipment, Machinery etc.)
- * Identify Required Competencies
- * Predict Actions of Other Parties
- * Employ Highly Competent Experts

FIRE INVESTIGATIONS

- * Scope and Scale of Loss or Liability
- * Complexity of Loss or Liability
- * Electrical & Mechanical Equipment Involved
- * Installation, Operational & Maintenance Actions
- * Number of Interests & Parties
- * Skill Sets Required to Investigate and Litigate
- * Private Investigator or Professional Engineer

TYPES OF INVESTIGATORS

- * Private Investigators – Often Fire Investigators
- * Licensed Trades Persons – Plumbers, Gas Fitters, Electricians. Often for Assistance and Fact Witnesses
- * Professional Engineers – Fire Investigations, Mechanical, HVAC, Electrical, Machinery, Materials & Structural Experts.
- * Other Licensed Professionals

WHO TO SELECT FIRE INVESTIGATION

- * PI and/or PE depending on size of loss and its complexity
- * Licensure in State of Loss & of Evidence Examinations
- * CFEI and CFI – Certifications not Licensure
- * PI – 5-10 years of Fire Investigation in public sector
- * PE – 5-10 years of Licensed Design or Operations in Areas of Practice
- * 3-5 Years Private Sector Fire Investigation Experience

MECHANICAL, ELECTRICAL, MATERIALS FAILURE LOSSES

- * Must Select a Maine Licensed Engineer
- * Validate Specific Design, Research, Consulting, Manufacturing, and Operations Experience in Area of Loss
- * Validate Field of Licensure
- * Validate Years of Practice in Field of Engineering After Licensure.

MAINE §8122. PROOF OF VALID PROFESSIONAL INVESTIGATOR'S LICENSE

" A person or company soliciting work or employment as a professional investigator shall provide proof to any client that the professional investigator holds a valid professional investigator's license before entering into any agreement or contract to conduct investigations."

§8104. LICENSE REQUIREMENT; EXCEPTIONS

- * **1. License.** A person may not act as a professional investigator without first obtaining from the chief a license to be a professional investigator or investigative assistant.

- * **2. Exceptions.** This section does not apply to the following:
 - * E. An insurance company investigating the personal habits and financial responsibility of applicants for insurance or indemnity bonds;
 - * F. An attorney admitted to practice law in the State acting in a professional capacity;
 - * H. An insurance adjuster, or an employee investigating claims for or against the employee's employer;
 - * J. A person possessing a valid private investigator's license granted under any prior existing provision of law of this State, as long as, upon expiration of the license, the person is governed by this section;
 - * L. A person acting within the scope of the person's professional practice to analyze facts, evidence or other data for the purposes of supplying expert testimony in a legal proceeding; (licensed engineers)

TITLE 32, CHAPTER 89: PROFESSIONAL INVESTIGATORS

§8103. DEFINITIONS

4-A. Private investigation. "Private investigation" means for any consideration whatsoever, to agree to obtain, or to in fact obtain information with reference to any of the following:

C. The cause of or responsibility for libels, fires, losses, accidents or damage or injury to persons or property;

E. Evidence to be used before a court, board, officer or investigative committee;

5. Professional investigator. "Professional investigator" means any person who engages in or solicits business or accepts employment to conduct private investigations.

§8110. INVESTIGATIVE ASSISTANT'S LICENSE

- * **1. Qualifications.** A person is qualified to be licensed as an investigative assistant who meets the qualifications set forth in section 8105, subsections 1 through 6.
- * **2. Application.** An application for an investigative assistant's license must be made to the chief in accordance with the requirements of section 8105, subsection 5 and section 8107. The application must be accompanied by the fee required under section 8117.
- * **3. Term of license.** The investigative assistant's license is valid for 2 years from the date of issuance and is not renewable. To qualify for a license as a professional investigator, within those 2 years the investigative assistant must complete 1,200 hours of training.
- * **4. Sponsor.** An investigative assistant may engage in the business of private investigating only when sponsored by a professional investigator licensed under this chapter.

§8110-A. EMPLOYMENT OF INVESTIGATIVE ASSISTANT

A professional investigator duly licensed under this chapter whose primary place of business is located in the State may employ an investigative assistant pursuant to section 8110-B subject to the following:

- 1. Limit on number of investigative assistants.** No more than one investigative assistant is employed at one time; and
- 2. Investigative assistant to be licensed.** The investigative assistant is licensed under this chapter.

§8114. UNLAWFUL ACTS

A person is guilty of improper conduct in private investigation if the person commits any of the acts described in this section. Improper conduct in private investigation is a Class D crime.

1. Acting without license; false representation. A person acts without a license or commits false representation if that person intentionally or knowingly:

- A. Except as provided in section 8104, acts as a professional investigator without a valid license;
- B. Falsely represents that the person is the holder of a valid license;
- C. Falsely represents that any person in the person's employ is a professional investigator or investigative assistant;

§8123. VIOLATION

Except when a criminal penalty is otherwise provided, a person who violates this chapter or a rule adopted pursuant to this chapter commits a civil violation for which a fine of not less than \$1,000 may be adjudged.

PRIVATE INVESTIGATOR ATTRIBUTES

- * Witness Interview Skills
- * Documentation Skills
- * Ability to Render Opinions May Be Restricted
 - * Documented Experience and Education
 - * Must Establish Competency In Investigative Area Or Only Fact Witness

TRADES PROFESSIONALS

- * Licensed Trade Professionals – Exemption
 - * Gas Fitters, electricians, plumbers, HVAC technicians, equipment operators
 - * Often Assist in operating and to disconnect equipment
 - * Provide Operations, Maintenance, Service Information.
 - * Opinions limited to specific licensure

PROFESSIONAL LICENSE EXCEPTION

- * Attorneys
- * Insurance Adjusters
- * Licensed Trades
- * Engineers, Architects, Surveyors, CPAs

**TITLE 32: PROFESSIONS AND OCCUPATIONS CHAPTER
19: ENGINEERS
SUBCHAPTER 3: LICENSURE**

§1351. Licensure required

- * In order to safeguard life, health and property, any person practicing or offering to practice the profession of engineering is required to submit evidence of qualification to practice the profession of engineering and must be licensed as provided. It is unlawful for any person to practice or to offer to practice the profession of engineering in the State or to use in connection with the person's name or otherwise assume, use or advertise any title or description tending to convey the impression that the person is a professional engineer, unless that person has been duly licensed or exempted under this chapter.

§1251. DEFINITIONS

- * 3. Practice of professional engineering. "Practice of professional engineering" means any professional service, such as consultation, investigation, evaluation, planning, design or responsible supervision of construction in connection with any public or private utilities, structures, buildings, machines, equipment, processes, works or projects, wherein the public welfare or the safeguarding of life, health or property is concerned or involved, when such professional service requires the application of engineering principles and data.
- * 4. Professional engineer. "Professional engineer" means a person who, by reason of a knowledge of mathematics, the physical sciences and the principles of engineering, acquired by professional education and practical experience, is qualified to engage in engineering practice as defined.

§1256. VIOLATIONS; PENALTIES; INJUNCTION

A person who practices or offers to practice the profession of engineering in this State without being licensed or exempted in accordance with this chapter, or a person presenting or attempting to use the license or the seal of another, or a person who gives a false or forged evidence of any kind to the board or to a member of the board in obtaining a license, or a person who falsely impersonates any other licensee of like or different name, or a person who attempts to use an expired or revoked license, or a person who violates any of the provisions of this chapter for which a penalty has not been prescribed commits a civil violation for which a fine of not more than \$1,000 may be adjudged.

The State may bring an action in Superior Court to enjoin a person from violating this chapter, regardless of whether other administrative, civil or criminal proceedings have been or may be instituted

PE LICENSURE REQUIREMENTS

- * BS Engineering (Accredited University)
- * MS Engineering (Optional) (Qualifies as 1yr Intern)
- * 8 hour Fundamentals Examination
- * 4 Years Supervised Design (Intern) – Under PE
- * 8 Hour Professional Exam in Area(s) of Practice
- * Examples of Work
- * Letters of References
- * Ongoing Continuing Education (Most States)
- * Licensure in each State of Practice

WHO TO SELECT

COMPETENCY REQUIREMENTS FOR PE

- * PE's - Demonstrated design and operations competencies in the area of practice prior to becoming a forensic engineer "Expert."
- * 5-10 years Licensed Engineering in Consulting and/or Manufacturing practice prior to forensic work
 - * Mechanical, HVAC, Electrical, Materials, Structures, Fire Protection, Machinery, etc.
- * Expert must provide specific evidence of engineering design and operations experience in area of investigation
- * Verify year of professional licensure

FORENSIC ENGINEERING PRACTICE

- * Demonstrated design & operations (consulting and manufacturing) competencies in areas of practice.
- * Licensure in each state of practice
- * National Engineering Record – NCEES
- * Signed, dated, and stamped reports

RED FLAG WARNINGS

- * No professional licensure
 - * “Senior Engineer,” “Electrical Engineer,” “Senior Associate,” “Inspector,” “Project Manager” or “Consultant” are meaningless
- * Reports not signed, dated, and stamped by PE
- * Year of Professional Licensure not disclosed
 - * CV may not accurately report “Professional Experience” (CV’s sometimes include high school activities as years of experience)
 - * Begin professional experience with licensure
- * Practice out of area of licensure & competency

RED FLAGS – CONT.

- * Limited (or no) design and operations experience following licensure and/or in area of practice.
- * Advertising “mechanical & electrical” as practice area competencies when licensure and experience is limited to “fire protection”
- * Years of licensed engineering practice prior to becoming “Forensic Engineer” not disclosed
- * CFEI or CFI without P.E. or PI being reported
- * Lists of non-accredited training used to justify engineering competencies and practice areas

HIRE THE EXPERT – NOT THE FIRM

- * When selecting an expert – select the expert not the firm.
- * Do not accept entry level engineers – Licensure date
- * Verify licensure discipline mech, elec, struct, fp
- * Require broad professional engineering experience prior to becoming a forensic engineer
- * Require expert to verify professional design and operations experience in areas of practice.

THANK YOU

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