

FIRE INVESTIGATION ASSOCIATION OF ALBERTA

Fatal Fire Investigations



June 12 and 13, 2025

Day 1 – June 12th – 08:00 – 17:00

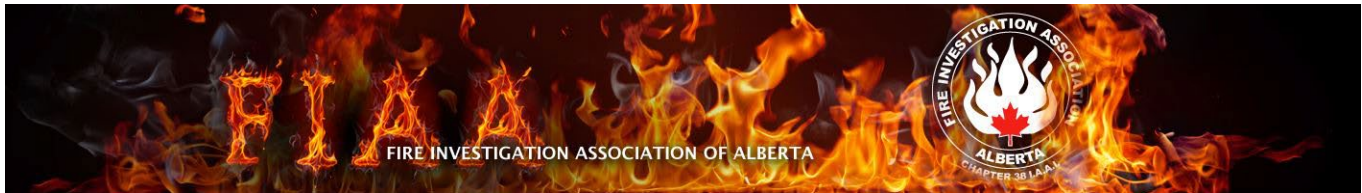
Fatal Fire Investigation Presentation Topics:

- Introduction to how the human body burns as layered soft tissues and burned bones and their characteristics when observed at the fatal fire scene.
- Body movements and limb flexion of the pugilistic posture.
- Common myths and misconceptions within the history of fatal fire death investigation.
- Characteristics of heat-related changes and burn pattern characteristics of the arms, legs, torso, head, and entire body from durations of minutes to hours and their burned condition at the fatal fire scene.
- The roles of clothing, body position, fuel types, durations, etc.
- Burn characteristics of altered heat-related changes resulting from preexisting traumatic injuries from blunt and sharp force injuries in burned soft tissues and bones (cranial and long bones).
- Contributions of rendered subcutaneous fat as a sustainable fuel source (hours) and the resulting burn patterns at the fire scene.
- Burn pattern characteristics of radiant and direct heat exposure, ignitable liquids, and case studies.
- The process of heat-related changes to the body for varying burning durations from minutes to hours.
- Burn pattern characteristics from different fire environments: vehicles, structures with different furnishing types, confined spaces, outdoor settings, and incendiary fires.
- What survives as evidence of the victim's body and the characteristic burn patterns from cases of partial to complete cremation.
- Post-fire alterations to fragile burned human remains from fire suppression tactics, scene overhaul, search efforts, and improper recovery.
- Investigating the burn patterns of both the victim's body and the scene together in their original in situ condition.
- Importance of NOT removing the victim's body from the scene immediately after discovery.
- Fatal fire scene investigation protocols of forensic photography, mapping, and excavation techniques.
- Effective search methods through fire debris involving burned bones and teeth (charred, calcined, and fragmented).
- Effective recovery techniques for documenting and collecting charred soft tissues, burned bone fragments, and evidence handling.
- Proper handling methods for removal of the victim's body from the fire scene.
- Pitfalls from excessive damage and improper handling of burned human remains during recovery and removal from the fatal fire scene.
- Proper preparations and handling of the burned victim's burned body for transport from the scene to the Medical Examiner/Coroner's Office for the postmortem examination.

Day 2 – June 13th – 08:00 – 17:00

Live Burn Demonstrations and Examination of Heat-Related Damage to the Body at the Fatal Fire Scene

- Observations of the pre-fire conditions of the body and its context within the scene.
- Live burn demonstrations with participant observations of the fire's growth and development, the progressive fire damage of both the vehicle and/or structure with furnishings and the corresponding heat-related changes of movements from the pugilistic posture and the thermal tissue damage of the burned body inside.
- Observations of the post-flashover conditions of both the fire scene and the burned body.
- The effects of fire suppression tactics on the burned body.
- Observations of the heat-related damage and burn patterns to the layered tissues of the body after the fire has been extinguished.
- Recognition and characteristics of charred and calcined human burned bones and teeth and their comparisons to common types of fire debris that can appear similar to fragmentary burned bones.
- The importance of NOT removing the victim's burned body from the fatal fire scene.
- Field techniques for the documentation of both the burned victim's body and the burn patterns of the fire scene with forensic photography, maps, and detailed scene notes of the burned body's condition.
- Documentation of dispersal patterns of fragmented charred and calcined bones within the fire scene around, on, and/or under the burned body.
- Hands-on activities of search and identification of the burned body with forensic mapping, flagging evidence, and documentation of the fatal fire scene with photography and notes.
- Hands-on excavation techniques of forensic archaeological excavation of the surrounding fire debris and field recovery of burned bone fragments and teeth.
- Hands-on recovery process of forensic evidence associated with the victim and preparations of the burned body and associated evidence for removal from the fire scene.



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Instructor Biography

Elayne Pope, Ph.D. Fatal Fire Forensics

Dr. Elayne Pope is a Forensic Anthropologist and the President of Fatal Fire Forensics www.burnedbone.com. Dr. Pope's research has focused on how the human body burns within different types of fire environments (structures, vehicles, confined spaces, outdoor, and incendiary) and what types of physical evidence remains of the victim's body at the fatal fire scene for crime scene and fire investigators. She completed her doctorate from the University of Arkansas in 2007 for "The Effects of Fire on Human Remains." Dr. Pope worked as the Autopsy Supervisor and Forensic Anthropologist for 6 years at the Tidewater Office of the Chief Medical Examiner in Norfolk, Virginia (2011-2017). Dr. Pope provides ongoing instructional course lectures and training, forensic expert consultation and examination of fatal fire casework for fire investigators, law enforcement, medical examiners/coroners, attorneys, and court testimony. She has conducted ongoing field research that examines the process of how human bodies burn under different fire scene conditions and environments in collaboration with the San Luis Obispo Fire Investigation Strike Team (SLO FIST) Fatal Fire Death Investigation Course (FFDIC) in San Luis Obispo, California where she has been an instructor since 2008.

Registration

FIAA Registration: \$1,200.00 (FIAA-Member) \$1,400.00 (Non-Member)

Early Bird (register by April 30, 2025): \$1,100.00 (FIAA-Member) \$1,300.00 (Non-Member)

Register today at www.fiaa.ca. **Registration Deadline: May 30, 2025**

**** INCLUDED in your registration fee ****

The FIAA will provide morning coffee, snacks, and lunch each day.

Attention: Alberta Safety Codes Officers. LEARN & EARN!

This course qualifies for "5" Alberta Safety Codes Council Continuing Education Credits

Following class on Day 1, from 18:00 – 23:30, join your FIAA hosts in the executive suite on the 5th floor for hospitality night. Enjoy some light snacks and refreshments while making some new connections and visiting with old friends.

ACCOMMODATIONS:

Holiday Inn and Suites Edmonton Airport and Conference Centre 1100 – 4 Street Nisku, AB
A block of rooms has been reserved for course participants. Use this link [FIAA](#) or Call **780-979-0839** and reference "FIAA" prior to **May 30, 2025**, to confirm your rate of **\$109.49/night** (+ taxes) (includes breakfast)

Training Location:

Holiday Inn and Suites Edmonton Airport and Conference Centre
1100 – 4 Street Nisku, AB **Glacier 1, 2 and 3 rooms**

Class Times:

08:00 – 17:00
Registration @ 07:00