



Lorne L. Brunner, MS-Forensics, IAAI-CFI(v)
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Lorne Brunner is a Certified Fire Investigator through the International Association of Arson Investigators (IAAI) and National Association of Fire Investigators (NAFI), with 15-plus years of experience conducting forensic fire and explosion origin and cause investigations, and liability/subrogation identification. He is Founder and Principal of Fire-pi, Inc., Minnesota's only Service-Disabled Veteran Owned Small Business, certified by the Veteran's Administration.

Lorne served 20 years in the US Navy; 12 as a Chief Petty Officer. He has testified as an expert in fire and explosion investigation in state courts. Lorne's experience includes large/complex loss management and investigations that have involved long duration deployments and team responses. Lorne's fire/explosion investigations include: Petro-chemical refinery, ethanol refinery, gun ranges, warehousing, multi-residential complexes, large retail centers, farm and agricultural Coops, heavy equipment, dwellings, vehicles, explosions, and multiple fatality incidents. He is experienced in providing opinions and assistance on fire litigation, including witness interviews, report review, photograph analysis and evidence. Lorne follows the ASTM's and NFPA-1033/921. He has conducted live burns of motor vehicles, products, structures, and burning dirt, as well as teaching continuing education seminars for the insurance industry. Lorne was the recipient of the 2012 International Association of Arson Investigators (IAAI) - ND Chapter Distinguished Service Award.

Highlights of Major Lead Investigations

- 2021-2022, Northfield, MN, Complex \$20 million historic hotel complex fire; managed and led a team of forensic investigators over 14 months, several multi-day scene and lab exams.
- 2020, Marshall, MN, double-fatal farm dwelling explosion resulting in more than \$5 million in successful subrogation and personal injury.
- 2019 Cameroon, Africa, \$600 million explosion destroyed the SONARA petrochemical refinery; led an international team of forensic investigators that identified the cause.
- 2015, Fargo, ND, double-fatal apartment complex fire caused more than \$5 million in damages, investigating the claim, collecting artifacts, and providing deposition testimony.
- 2012, South Dakota, \$2 million bar/grill fire; lead origin and cause forensic investigator and provided testimony in deposition and trial.

Professional Experience

Fire-pi, Inc., October 2019 – Present, Owner/Founder

- Responsible for timely investigation of forensic fire and explosion events including origin and cause determination, evidence handling, authoring reports and supervises fire investigators.

Envista Forensics, 2018 – 2019, Forensic Fire & Explosion Investigator

- Responsible for investigation of fire and explosion events including origin and cause determination.

EFI Global, Inc., /Unified Investigations & Sciences, 2009 – 2018, Forensic Fire & Explosion Investigator

- Responsible for investigation of fire and explosion events including origin and cause determination.

Education

- Eastern Kentucky University: Post-graduate study in Fire Protection, 2016-2017.
- National University, 1996, Master of Science, Forensics.

Certifications

- Certified Fire/Explosion (vehicle credential) Investigator (CFI-v) #16-100331: International Association of Arson Investigators (IAAI) attached with Pro Board Accreditation #1254554.
- Certified Evidence Collection Technician (ECT) #255: International Association of Arson Investigators (IAAI).
- Certified Fire/Explosion Investigator and Instructor (CFEI-i) #11968-6967i: National Association of Fire Investigators (NAFI).
- Certified International Fire/Explosion Investigator (CIFI): Int'l Assn of Fire Investigators.

Licenses

- State of Iowa, Private Detective #5098.
- State of Minnesota Private Detective #PDC-2151.
- State of Wisconsin, Private Detective #17407-62.

Professional Organizations

- International Association of Arson Investigators (IAAI).
- International Fire Investigation Research Institute (IFIRI).
- National Association of Fire Investigators (NAFI).
- Minnesota Association of Private Investigators (MAPI).
- National Fire Protection Association (NFPA).

Guest Lecturer | Instructor

- See attached guest lecturer.

Publications

- See attached publications.

Training Courses Taken

- See attached 1033 matrix.

Expert Testimony

- See attached Expert Testimony.

Awards | Achievements | Military Service

- Distinguished Service Award (2014) - ND-IAAI Chapter.
- Burn to Learn Training for small to large cities.
- U.S. Navy service as a Chief Petty Officer and Electronic Warfare Cryptologist, 1979-1999.
- Awarded the Navy and Marine Corps Commendation medal for meritorious service.
- Member of the National Fire Protection Association.

Guest Lecturer / Instructor

November 2010, South Dakota Claims Association, Arson – Red Flags

November 2011, Western Dakota Claims Association, Arson – Red Flags

November 2012, North Dakota Claims Association, Why Hire Fire Investigation Experts?

November 2012, Western Dakota Claims Association, Why Hire Experts?

December 2012, Colorado Technical University, Tort Law and Fires

September 2013, Grand Forks Claims Association, Missed Subrogation Opportunities

March 2014, Grand Forks Claims Association, Why Fire Investigators Use the Scientific Method

April 2015, Fargo-Moorhead Claims Association, Fire Investigation and Cause Analysis

September 2015, IAAI – ND Chapter, Expert Witness Testimony Course

May 2016, Grand Forks Claims Association, Subrogation and the Fire Investigator

September 2016, International Association of Arson Investigators (IAAI) – North Dakota Chapter Annual Training Conference, Evidence Collection Course

December 2016, Auto Owners Annual Insurance, Subrogation and Vehicle / Ag Fire Investigations

February 2017, Auto Owners Quarterly Insurance, Subrogation and Vehicle / Ag Fire

February 2019, Fox Valley Adjusters Association, Vehicle Fire's for the Adjuster

January 2020, Minnesota Reliability Consortium (MRC), Scientific Method capable of withstanding cross examinations in court

August 2022, Dirty Dozen/Criminal Law Institute 2022 – Guest speaker

September 2022, Fox Valley Adjusters Association, Battery Fire's for the Adjuster

June 2010 to Present, Founder / Publisher of LinkedIn Fire and Explosion Blog

October 2011, "Forensics and Fire Investigations", MT-IAAI Quarterly Newsletter

October 2011, "Forensics and Fire Investigations", ND-IAAI Quarterly Newsletter

April 2012, "How Technology Can Be Used at a Fire Scene", ND-IAAI Quarterly Newsletter

October 2013, "The Tomes", ND-IAAI Quarterly Newsletter

December 2013, "The Dance of the Public, Private and the Tomes", North Dakota Fire Chief

December 2014, "The Journey of the Tomes and the Dance", North Dakota Fire Chief (Vol. 21, No. 112)

April 2016, "Fire Investigation and Documenting the Scene", North Dakota Fire Chief

July 2016, "Fire Chemistry Basics", ND-IAAI Quarterly Newsletter

January 2017, "Hydrocarbon Chemistry", ND-IAAI Quarterly Newsletter



Origin • Cause • Subrogation • Liability



1449

Year	Topic	TO TA L H o u r s o n C e r t i
		1449
1993	CJ640a Criminalistics1, National University	5
	CJ640b Criminalistics3, National University	7
1994	CJ640c Criminalistics2, National University	14
	NV-IAAI Advanced Fire Investigation Training	40
1995	NV-IAAI Basic Fire Investigator Training	40
	FS648 Forensic Photography, National University	40
	CFITrainer.net (IAAI) Fire Dynamis and Modeling	3
	CFITrainer.net (IAAI) Vacant and Adandoned Buildings	3
	CFITrainer.net (IAAI) Insurance and Fire Investigation	4
1998	CFITrainer.net (IAAI) Scientific Method	3
	CFITrainer.net (IAAI) Fire Investigations Safety	2
	CFITrainer.net (IAAI) Documenting the Event	4
	CFITrainer.net (IAAI) Physical Evidence at the Fire Scene	4
	CFITrainer.net (IAAI) Introduction to Evidence	4
	CFITrainer.net (IAAI) Utilizing the NFPA921/1033	4
	CFITrainer.net (IAAI) Postflashover Fires	4
	CFITrainer.net (IAAI) Arc Mapping	4
	CFITrainer.net (IAAI) Effective Investigation Testimony	4
2009	CFITrainer.net (IAAI) Motor Vehicle Fires	3
	CFITrainer.net (IAAI) Motive, Means and Opportunity in Arson	4
	CFITrainer.net (IAAI) Investigating Fatal Fires	4
	CFITrainer.net (IAAI) Ethics and Fire Investigation	4
	CFITrainer.net (IAAI) Managing Complex FSI	4

	CFITrainer.net (IAAI) Critical Thinking Solves Cases	4
	CFITrainer.net (IAAI) Station Nightclub Fire Analysis	4
	CFITrainer.net (IAAI) Understanding Fire Through the Candle	4
	CFITrainer.net (IAAI) Ventalation-Focused Fires	4
	CFI-Trainer.net (IAAI) MagneTek: Case Study of Daubert	2
	MN - Annual Training Conference: Vehicle Fires	20
	CFITrainer.net (IAAI) Digital Photography	20
	Fire Investigation in the Insurance Industry, EFI Global	3
	CFITrainer.net (IAAI) Fundamentals of interviewing	5
	CFITrainer.net (IAAI) Electrical Safety	3
2010	Expert Witness Courtroom Testimony IAAI-ND	20
	CFITrainer.net (IAAI) Wildland Fire Investigation	5
	CFITrainer.net (IAAI) Fundamentals of Residential Building Construction	3
	CFITrainer.net (IAAI) What happens in the Lab?	4
	SD-IAAI ATC - Fire Investigation Course	4
	CFITrainer.net (IAAI) Marine Fires	4
	CFITrainer.net (IAAI) HAZWOPER	4
	CFITrainer.net (IAAI) Explosion Dynamics	4
2011	CFITrainer.net (IAAI) DNA	4
	MT-IAAI ATC	20
	CFITrainer.net (IAAI) Fire Investigator and NFPA921/1033	2
	CFITrainer.net (IAAI) Charleston Sofa Super Store Fire	4
	MN-IAAI Learn to Burn	4
	MN-IAAI AFIC	20
	CFITrainer.net (IAAI) First Responders and Fire Investigation	2
	Facebook Investigative Procedures & Techniques	2
	Asbestos Awareness, EFI Global	1
	CFITrainer.net (IAAI) Search Seizure	4
2012	CFITrainer.net (IAAI) Using Resources to Validate Hypothesis	2
	CFITrainer.net (IAAI) Practical Application NFPA 1033/921	2
	Concepts of Chemistry, FEMA-NFA	2
	CFITrainer.net (IAAI) Writing Initial Origin Cause Report	3

	CFITrainer.net (IAAI) Fire Protection Systems	3
	CFITrainer.net (IAAI) NFPA 1033 and Career	2
	ND-IAAI ATC	40
	HAZWOPER -National Environmental Training	4
	MN-IAAI AFIC	20
2013	ND-IAAI ATC	20
	MN-IAAI AFIC	20
	MN Annual Training Conference: Truck/Bus Fires	20
	IAAI-ITC	40
	CFITrainer.net (IAAI) Potential Value of Electronic Evidence in FI	3
	HAZWOPER, E-training	8
	Fall Protection, eTraining	2
2014	CFITrainer.net (IAAI) Process of Elimination	3
	WDCA - Live Training Burn	1
	ND-IAAI ATC	20
	HAZWOPER, E-training	8
	CFITrainer.net (IAAI) Basic Electricity	4
	IAAI-ATC	40
	Origin Determination - IAFI	2
	CFITrainer.net (IAAI) Fire Dynamics Calculations	4
	CFITrainer.net (IAAI) NFPA921/1033 Revisions	3
	CFITrainer.net (IAAI) Ethics and Social Media	3
2015	Fire Claim Cases: Prepared Expert	1
	Spontaneous Combustion - Testing and Hypothesis	1
	ND-IAAI ATC	20
	OC Training Burn	16
	MN Private Detective	2
	IAAI-ATC	40
	IAAI-ECT	4
	CFITrainer.net (IAAI) The Deposition P2	3
	OC Training Burn	16
	MN-IAAI AFIC	20

	CFITrainer.net (IAAI) Residential Electrical Systems	3
	CFITrainer.net (IAAI) The Deposition P1	3
2016	Hazwoper Refresh 8-hr	8
	Fire Prevention Course - ECU	5
	Thermometry	1
	Thermodynamics	3
	CFITrainer.net (IAAI) Ethical Duties Beyond Fire Scene	3
	CFITrainer.net (IAAI) Accreditation, Certification and Certificates	3
	CFITrainer.net (IAAI) Investigating LODD Fatal Fires	4
	Forensic Investigation - UIS	24
	MN-IAAI ATC	20
	Asbestos Recertification	1
2017	CFITrainer.net (IAAI) Fire Dynamis and Modeling (Refresh)	4
	CFITrainer.net (IAAI) Intoduction to Youth-Set Fires	3
	CFITrainer.net (IAAI) Ethical Duties Beyond Fire Scene (Refresh)	3
	CFITrainer.net (IAAI) Charleston Sofa Super Store Fire (Refresh)	4
	CFITrainer.net (IAAI) Basic Electricity (Refresh)	4
	CFITrainer.net (IAAI) Critical Thinking Solves Cases (Refresh)	4
	CFITrainer.net (IAAI) Station Nightclub Fire Analysis (Refresh)	4
	CFITrainer.net (IAAI) Motor Vehicles: Engine, ignition, Electrical and Fuel System	3
	CFITrainer.net (IAAI) Wildland Fire Investigation (Refresh)	5
	CFITrainer.net (IAAI) Insurance Professional Need to Know About FI	3
	CFITrainer.net (IAAI) Motor Vehicles: Transmission, Exhaust, Brake and Accessory	3
	CFITrainer.net (IAAI) Potential Value of Electronic Evidence in FI (Refresh)	4
	CFITrainer.net (IAAI) Using Resources to Validate Hypothesis (Refresh)	2
	CFITrainer.net (IAAI) Fire Protection Systems (Refresh)	3
	CFITrainer.net (IAAI) Understanding the FI Job: A Guide for Non-Investigators	3
	CFITrainer.net (IAAI) Practical Application NFPA 1033/921 (Refresh)	2
	CFITrainer.net (IAAI) Search Seizure (Refresh)	4
	CFITrainer.net (IAAI) Marine Fires (Refresh)	4
	CFI-Trainer.net (IAAI) Residential Natural Gas Systems	3
	CFITrainer.net (IAAI) HAZWOPER (Refresh)	8

CFI-Trainer.net (IAAI) Investigating Natural Gas Systems (Refresh)	3
CFITrainer.net (IAAI) NFPA 1033 and Career (Refresh)	2
CFITrainer.net (IAAI) Motive, Means and Opportunity in Arson (Refresh)	4
CFITrainer.net (IAAI) Managing Complex FSI (Refresh)	4
CFI-Trainer.net (IAAI) Legal Aspects of Investigating Youth-Set Fires	3
CFI-Trainer.net (IAAI) MagneTek: Case Study of Daubert (Refresh)	2
CFITrainer.net (IAAI) Discovery in Civil Cases	3
CFITrainer.net (IAAI) Discovery in Criminal Cases	3
CFITrainer.net (IAAI) Motor Vehicle Fires (Refresh)	4
CFITrainer.net (IAAI) Investigating LODD Fatal Fires (Refresh)	4
CFITrainer.net (IAAI) First Responders and Fire Investigation (Refresh)	2
CFITrainer.net (IAAI) Fundamentals of Residential Building Construction (Refresh)	3
CFITrainer.net (IAAI) Fundamentals of interviewing (Refresh)	4
CFITrainer.net (IAAI) Explosion Dynamics (Refresh)	4
CFITrainer.net (IAAI) Ethics and Social Media (Refresh)	3
CFITrainer.net (IAAI) Ethics and Fire Investigation (Refresh)	4
CFITrainer.net (IAAI) Electrical Safety (Refresh)	4
CFITrainer.net (IAAI) Effective Investigation Testimony (Refresh)	3
CFITrainer.net (IAAI) Arc Mapping Basics - Refresh	3
CFITrainer.net (IAAI) Value of IAAI Membership	3
Hazwoper Refresh 8-hr	8
IAAI – MN ATC	20
CFITrainer.net (IAAI) Process of Elimination	3
Deposition Part 2: Questioning Tactics and Effective Responses	3
CFITrainer.net (IAAI) Writing the initial Origin and Cause Report	3
CFITrainer.net (IAAI) The Deposition Part 1: Format, Content	3
CFITrainer.net (IAAI) Investigating Fatal	3
CFITrainer.net (IAAI) Vacant & Abandoned Buildings: Hazard	4
MN-IAAI AIC	4
CFITrainer.net (IAAI) Fire Scene Safety	3
CFITrainer.net (IAAI) Post Flash-over fires	4
CFITrainer.net (IAAI) Documenting the Event	4

	UIS - In-service Webinar Series; Essentials of NFPA 1033, 06-16 – 01-17	20
	ND-IAAI ATC	20
2018	CFITrainer.net (IAAI) Fire Investigation for Fire Officers	3
	CFITrainer.net (IAAI) Understanding Undetermined	3
	CFITrainer.net (IAAI) Thermometry, Heat, and Heat Transfer	3
	CFITrainer.net (IAAI) Fire Chemistry	4
	CFITrainer.net (IAAI) Postflashover Fires (Refresher)	4
	CFITrainer.net (IAAI) The Deposition Part I: Format, Content, and Preparation (R	3
	CFITrainer.net (IAAI) Fire Investigator Scene Safety (Refresher)	3
	CFITrainer.net (IAAI) DNA (Refresher)	3
	CFITrainer.net (IAAI) Introduction to Evidence	4
	2018 HAZWOPER Refresher	8
2019	CFITrainer.net (IAAI) Discovery in Civil Cases	3
	CFITrainer.net (IAAI) Digital Photography and the Fire Invest	3
	CFITrainer.net (IAAI) Accidental Common Causes	3
	CFITrainer.net (IAAI) Critical Evaluation and Testing of Common Reported Acci	3
	CFITrainer.net (IAAI) Principles of Fire Investigation and Multi-Program Concer	3
	MN-IAAI Vehicle Fire Class	8
	CFITrainer.net (IAAI) Fire Flow Analysis	3
	CFITrainer.net (IAAI) FI for Fire Officers and Multi-Program Concentration if M	4
	2019 HAZWOPER Refresher	8
	CFITrainer.net (IAAI) Knowledge 1 Motor Vehicle Fires Tier1	3
	CFITrainer.net (IAAI) Using Resources to Validate Hypothesis (Refresh)	3
	CFITrainer.net (IAAI) Motor Vehicle Fires (Refresh)	3
	CFITrainer.net (IAAI) Motor Vehicles: Engine, ignition, Electrical and Fuel System	3
	CFITrainer.net (IAAI) Accreditation, Certification and Certificates	1
	CFITrainer.net (IAAI) Arc Mapping Basics (Refresh)	4
	CFITrainer.net (IAAI) Basic Electricity (Refresh)	4
	CFITrainer.net (IAAI) Value of IAAI Membership	1
	CFITrainer.net (IAAI) Investigating Motor Vehicle Fires (Refresher)	3
	WI IAAI 2019 Spring Seminar	20
	MN-IAAI ATC	20

	CFITrainer.net (IAAI) Charting Your Career Path In Fire Inv.	2
	CFITrainer.net (IAAI) Understanding Fire Through the Candle Experiments (Ref	3
	CFITrainer.net (IAAI) 2019 HAZWOPER Refresher	8
2020	CFITrainer.net (IAAI) Fire Flow Analysis (Refresh)	3
	CFITrainer.net (IAAI) Documenting the Event (Refresh)	3
	CFITrainer.net (IAAI) Process of Elimination (Refresh)	3
	Hazwoper Refresh 8-hr	8
	CFITrainer.net (IAAI) Arc Mapping Basics (Refresh)	4
	CFITrainer.net (IAAI) Electrical Safety (Refresh)	4
	CFITrainer.net (IAAI) Basic Electricity (Refresh)	4
	CFITrainer.net (IAAI) Residential Electrical Systems (Refresh)	4
	CFITrainer.net (IAAI) Fundamentals of Interviewing (Refresh)	3
	CFITrainer.net (IAAI) Fire Scene Safety (Refresh)	3
	CFITrainer.net (IAAI) Scientific Method (Refresh)	3
	MN Certified Private Detective Seminar	3
	CFITrainer.net (IAAI) Fire Chemistry	3
	CFITrainer.net (IAAI) Ethics and Fire Investigation (Refresh)	3
	Dane County Arson Response Initiative, Inc. (DCARI) - Id damage to Electrical Cor	3
	CFITrainer.net (IAAI) Practical Application NFPA 1033/921 (Refresh)	1
	CFITrainer.net (IAAI) Introduction To Appliances	3
	CFITrainer.net (IAAI) NFPA 1033 and Career (Refresh)	1
2021	2021 HAZWOPER Refresher	8
	CFITrainer.net (IAAI) Value of IAAI Membership (Refresh)	1
	CFITrainer.net (IAAI) Accreditation, Certification and Certificates	1
	CFITrainer.net (IAAI) Charting Your Career Path In Fire Inv. (Refresh)	1
	CFITrainer.net (IAAI) Critical Evaluation/Testing Common Reported Acc. Cause	3
	Illinois Private Detective Training	20
	CFITrainer.net (IAAI) Charleston Sofa Super Store Fire (Refresh)	4
	CFITrainer.net (IAAI) Station Nightclub Fire Analysis (Refresh)	4
	CFITrainer.net (IAAI) Arc Mapping Basics (Refresh)	4
	CFITrainer.net (IAAI) Basic Electricity (Refresh)	4
	CFITrainer.net (IAAI) Electrical Safety (Refresh)	4

	CFITrainer.net (IAAI) Residential Electrical Systems (Refresh)	4
	CFITrainer.net (IAAI) Fire Chemistry	3
	CFITrainer.net (IAAI) Alternative Fuel Vehicles	3
	CFITrainer.net (IAAI) Electric & Hybrid Vehicle Design Basics	3
	CFITrainer.net (IAAI) Electric & Hybrid Vehicle Fires	3
	CFITrainer.net (IAAI) Motor Vehicles: Engine, ignition, Electrical and Fuel System	3
	CFITrainer.net (IAAI) Investigating Motor Vehicle Fires (Refresher)	4
	CFITrainer.net (IAAI) Scientific Method (Refresh)	3
2022	CFITrainer.net (IAAI) Emerging Technologies in FI	2
	CFITrainer.net (IAAI) Lithium Ion Battery Fires	2
	2021 HAZWOPER Refresher	8
	CFITrainer.net (IAAI) Fire Dynamics and Modeling (Refresh)	4
	CFITrainer.net (IAAI) Fundamentals of Interviewing (Refresh)	3
	CFITrainer.net (IAAI) Explosion Dynamics (Refresh)	4
	CFITrainer.net (IAAI) Ethics and Social Media (Refresh)	3
	CFI-Trainer.net (IAAI) Investigating Natural Gas Systems (Refresh)	3
	CFITrainer.net (IAAI) Fundamentals of Residential Building Construction (Refresh)	3
	CFITrainer.net (IAAI) Understanding Undetermined (Refresh)	3
	CFITrainer.net (IAAI) Fire Protection Systems (Refresh)	3
	MN-IAAI Building Construction for the Fire Investigator	5
2023	MN-IAAI Origin Determination Relationship b/n Fire Dynamics, Fire Effects and Patterns	5

Expert Testimony

Date	Type of Testimony	Case	Plaintiff / Defendant	Case Number	District/City/State
12-28-12	Depo	State of SD v. Charles Johnson	Plaintiff	CRI 12-15	First Judicial Ckt, County of Bon Homme, SD
6-18-13	Trial	State of SD v. Charles Johnson	Plaintiff	CRI 12-15	First Judicial Ckt, County of Bon Homme, SD
7-1-15	Depo	Page Meadows, LLC and VLN 2014, LLP v. Thomas Olsen	Defendant	09-2014-CV-01552	District Ct, County of Cass, ND
11-23-16	Depo	Jack Mutnick and Beth Mutnick v. State Farm Ins.	Plaintiff	15-2476 (DWF/FLN)	US Dist Ct, Dist of MN
3-20-18	Depo	Derek Depauw and Amanda Depauw v. State Farm INs	Defendant	40-2016-CV-00141	Dist Ct of ND County of Rolette, NE Judicial Dist
6-20-21	Depo	American Family Connect Property and Casualty Insurance Company a/s/o Patton v. Stanley Black and Decker, Inc., et al.	Plaintiff	AMPF #2525038	
07-01-22	Trial Prep	SFP Holding, Inc. Summit Co., Summit Fire Protection Co., Richie Holdings Inc.	Defendant	62-CV-21-3005	Dist Ct, Second Judicial Dist of MN

Origin • Cause • Subrogation • Liability