



Resume of John J. Lentini, CFI, D-ABC

Scientific Fire Analysis, LLC
32836 Bimini Lane
Big Pine Key, FL 33043
(770) 815-6392 scientific.fire@yahoo.com

Capabilities

He can investigate fire or explosion scenes, locate the point of origin, and chemically determine the presence of flammable liquids or explosives. He can evaluate the validity of the work of other investigators through review of reports, testimony, photographs and other data. He is familiar with fire and building codes and can determine whether a structure, product, service or installation met applicable code requirements prior to a fire or other loss. He is also capable of performing all types of chemical and instrumental analyses, and giving expert testimony as to the results of his investigations.

Scientific Fire Analysis Responsibilities

President and Principal Investigator. Conducts preliminary evaluations of customer problems. Conducts, supervises or reviews investigations in the area of fire, arson, explosion, and asphyxiation, including review of chemistry issues. Prepares and presents expert testimony. Provides litigation support.

Education

B.A. in the Natural Sciences (Chemistry, Biology, Physics), New College, Sarasota, FL, June 1973.
Postgraduate courses in Chemistry and Criminal Investigation, University of Akron, OH, 1973-74.
Twenty credit hours Graduate Level Chemistry, Georgia State University, Atlanta, GA, 1979-80.

Training

Short Course in Instrumental Analysis, F.B.I. Academy, Quantico, VA, 1976.
Seminar on Arson and Fraud Investigation, University of Alabama at Birmingham, 1979.
Seminar on Gas Fires and Explosions, University of Alabama at Birmingham, 1980.
33rd, 35th, 37th, 39th, 40th, 42nd and 59th International Association of Arson Investigators Seminars, 1982-91.
Southeast Arson Seminar, University of Georgia, 1979-84, 1996, 2002.
1st, 2nd and 3rd Int'l Symposia on Recent Advances in Arson Analysis and Detection, 1982, 88, 90.
American Academy of Forensic Sciences (AAFS), Annual Meetings, 1988-2010.
National Fire Protection Association (NFPA) Life Safety Code Seminar, Nashville, TN, 1991.
IAAI Electrical Fire Investigation Seminar, Atlanta, GA 1991.
AAFS Workshop on Contemporary Issues of Fire Investigation and Analysis (Panelist) Seattle, WA, 1995.
FBI International Symposium on the Forensic Aspects of Arson Investigations, Fairfax, VA, 1995.
Georgia Fire Investigators Association (GFIA) Seminar on Appliance Fires, Decatur, GA, 1997.
Workshop on Fire Investigations, Forensic Science Society, Harrogate, England, 1997.
Anglo-American Fire Investigation Conference, Brunel University, Uxbridge, England, 1997.
Forensic Fire Engineering and Failure Analysis, Society of Fire Protection Engineers (SFPE), 1998.
International Fire Investigation Conference, Brunel University, Uxbridge, England, 1999.
Fire Litigation Seminar, National Association of Fire Investigators (NAFI)/NFPA, Sarasota, FL, 2000.
Lightning 101, Global Atmospheric, Inc., Atlanta, GA, 2000.
Technical Working Group on Fire and Explosion Investigations, 2nd, 3rd and 4th Annual Symposia, Orlando, FL, 2002 -2004.
Fire Dynamics Seminar, NFPA Technical Committee on Fire Investigations, Baltimore, MD, 2003.

Training (continued)

First International Symposium on Fire Investigation, Fire Service College, Moreton, England, 2004.
10th International Fire Science & Engineering Conference (Interflam), Edinburgh, Scotland, 2004.
Introduction to Fire Dynamics Simulator and Smokeview, SFPE, Chicago, IL, 2004.
International Fire Investigation Conference, Brunel University, Uxbridge, England, 2005.
The Scientific Method for Fire and Explosion Investigations, CFI Trainer.net, 2006.
Second International Symposium on Fire Investigation, University of Cincinnati, Cincinnati OH, 2006.
Third International Symposium on Fire Investigation, University of Cincinnati, Cincinnati OH, 2008.
Introduction to Fire Dynamics and Modeling, CFI Trainer.net, 2008.
A Ventilation-Focused Approach to the Impact of Building Structures and Systems on Fire Development, CFI Trainer.net, 2009.
Post Flashover Fires, CFI Trainer.net, 2009.

Professional Certifications and Licensure

He holds certifications from both the International Association of Arson Investigators (IAAI) and the National Association of Fire Investigators (NAFI). These certifications are based upon a peer review of education, training and experience, and successfully completing a written certification exam. Maintenance of certification requires continuing education.

He is also a certified Diplomate of the American Board of Criminalistics, with a specialty in Fire Debris Analysis. This certification requires successfully challenging a written general knowledge examination covering all phases of evidence handling and analysis, and a specialty examination on the details of fire debris analysis. Maintenance of Diplomate status also requires continued professional development.

He holds Florida private investigator's license number C 2600083. Florida has reciprocal license agreements with the following states: CA, GA, LA, NC, OK, TN, VA.

Experience

Applied Technical Services, Inc.: 1978-2006
Manager, Fire Investigations. Authored over 3,000 technical reports. Supervised two fire investigators and an electrical engineer. Served as project manager for major fire investigations. Conducted site inspections, chemical analyses, designed and conducted physical experiments to re-create fire scenarios. Provided training, consulting and expert witness testimony.

Metallurgical Engineers of Atlanta: May-December, 1977
Fire scene inspection. Chemical analysis of fire debris. Quantitative chemical and physical analysis on all types of metal. Radiographic inspection of fittings and welds.

State of Georgia Crime Laboratory: August 1974 - May 1977
Qualitative and quantitative analysis of all types of physical evidence associated with violent and/or property crimes, and testifying to the results of such analyses. Responding statewide to conduct field investigations for law enforcement agencies. Conducting air and water quality measurements for other state and federal agencies. Instruction of law enforcement officers in the collection and protection of physical evidence.

Courtroom Experience

Since 1975, he has given expert testimony in over two hundred cases in civil and criminal court in several states and in the Federal Courts. He has testified for both Plaintiffs and Defendants, and has twice served as a neutral expert hired to advise the court. A schedule of testimony provided since 2000, both in trial and in depositions, is available upon request.

Professional Associations

Member, American Academy of Forensic Sciences President's Panel on Scientific Integrity, 2009.
Vice Chair, ASTM Committee E30 on Forensic Sciences, elected 1995, re-elected 1997 and 2005.
Chair, ASTM Committee E30 on Forensic Sciences, elected 1999, re-elected 2001 and 2003.
Chair, ASTM Subcommittee E 30.01 on Criminalistics, 1991-1995.
Director, American Board of Criminalistics (ABC), elected 1993, re-elected 1996.
Chair, ABC Proficiency Administration Committee, 1993-1999.
Fellow of the American Academy of Forensic Sciences (AAFS) 1992-present.
Chair, AAFS Criminalistics Section Nominating Committee, 1999-2007.
Member, Editorial Board, *Journal of Forensic Sciences*, 2003-present.
Member, National Fire Protection Association (NFPA) Technical Committee 921 on Fire Investigations, 1996-present. (Representing ASTM Committee E30 on Forensic Sciences)
Member, Technical Working Group on Fire and Explosion Investigations, 1997-present.
Planning Panel Member, U. S. Dept. of Justice, NIJ Technical Working Group on Fire Investigations, 1997-2000.
Peer Reviewer, U. S. Dept. of Justice, NIJ-Office of Science & Technology, 2002, 2007-present.
Member of the National Association of Fire Investigators (NAFI), 1996-present.
Member of the International Association of Arson Investigators (IAAI), 1978-2001, 2008-present.
Member of the Florida Chapter of the IAAI, 1978-2001, 2008-present.
Chair, IAAI Forensic Science Committee, 1988-1991.
Member of the Georgia Fire Investigators Association (GFIA), 1978-2007.
Member of the Metro Atlanta Fire Investigators Association, 1978-2007. President, 1981.
Member of the American Chemical Society, 1978-present.

Peer Reviewed Publications

- "Forensic Science Standards: Where They Come From and How They Are Used," *Forensic Science Policy and Management: An International Journal*, Vol.1, No. 1, February 2009.
- NFPA 921, *Guide for Fire and Explosion Investigations*, NFPA, Quincy, MA, Contributor to the 1995, 1998, 2001, 2004 and 2008 editions as a principal member and task group leader of the Technical Committee on Fire Investigations.
- "Persistence of Floor Coating Solvents," *J. Forensic Sciences*, Vol. 46, No. 6, November 2001.
- "Fire and Arson Scene Evidence: A Guide for Public Safety Personnel," National Institute of Justice Office of Justice Programs, USDOJ Publication Number NCJ 181584, Contributor to the document as a chapter author and editorial board member, June 2000.
- "The Petroleum-Laced Background," (co-authored with Julia Dolan and Cheryl Cherry), *J. Forensic Sciences*, Vol. 45, No. 5, September 2000.
- "A Calculated Arson," *The Fire and Arson Investigator*, Vol. 49, No. 3, April 1999.
- "Differentiation of Asphalt and Smoke Condensates from Liquid Petroleum Distillates Using GC/MS," *J. Forensic Sciences*, Vol. 43, No. 1, January 1998.
- "Comparison of the Eluting Efficiency of Carbon Disulfide with Diethyl Ether: The Case for Laboratory Safety," (co-authored with Dr. Andrew T. Armstrong), *J. Forensic Sciences*, Vol. 42, No. 2, March 1997.
- "An Improved Method of Obtaining Ion Profiles From Ignitable Liquid Residue Samples," *FBI International Symposium on the Forensic Aspects of Arson Investigations*, Fairfax, VA, August 1, 1995.
- "ASTM Standards for Forensic Sciences," *J. Forensic Sciences*, Vol. 40, No. 1, January 1995
- "Behavior of Glass at Elevated Temperature," *J. Forensic Sciences*, Vol. 37, No. 5, September 1992.
- "Baseline Characteristics of Residential Structures Which Have Burned to Completion: The Oakland Experience," (co-authored with David M. Smith, C.F.I. and Dr. Richard W. Henderson, C.F.I.), *Fire Technology*, Vol. 28, No. 3, August 1992.
- "Standard Test Method for Flammable or Combustible Liquid Residues in Extracts from Samples of Fire Debris by Gas Chromatography," ASTM E 1387-90. Principal Author as Task Group Coordinator.
- "Guidelines for Laboratories Performing Chemical and Instrumental Analysis of Fire Debris Samples," Principal author as Co-Chair of IAAI Forensic Science Committee, June 1988.

Editorial-Reviewed Publications

- Scientific Protocols for Fire Investigation*, CRC Pres, Boca Raton, FL, 2006.
- “The Standard of Care in Fire Investigation,” *Canadian Association of Fire Investigators Journal*, Spring 2007.
- “Report on the Peer Review of the Expert Testimony in the Cases of *State of Texas v. Cameron Todd Willingham* and *State of Texas v. Ernest Ray Willis*,” submitted to the State of Texas Forensic Science Commission, May 2, 2006. (Co-authored with Douglas J. Carpenter, Daniel L. Churchward, David M. Smith and Michael A. McKenzie) Available at www.innocenceproject.org
- “What You Don’t Know Can Hurt You: How Do You Know Your Lab Has It Right?” *The Fire and Arson Investigator*, Vol. 53, No. 3, April, 2003.
- “Forensic Arson Investigation,” McGraw-Hill *Yearbook of Science and Technology*, 2003.
- “Fires, Arsons and Explosions,” Chapter 26 in *Modern Scientific Evidence: The Law and Science of Expert Testimony*, edited by Faigman, Kaye, Saks and Sanders, West Publishing Co., St. Paul, MN, 1997, (Revised 2001, 2007)
- “Fires, Arsons and Explosions,” Chapter 7 in *Science in the Law, Forensic Science Issues*, West, 2002. (Essentially a reprint of the 2001 revision in *Modern Scientific Evidence*)
- “Standardization in the Criminalistics Laboratory,” *Standardization News*, Vol. 23, No. 4, April 1995.
- “Unconventional Wisdom: The Lessons of Oakland,” *The Fire and Arson Investigator*, Vol. 43, No. 4, June 1993.
- “The Lime Street Fire: Another Perspective,” *The Fire and Arson Investigator*, Vol. 43, No. 1, Sept. 1992.
- “Melted Steel: How Important?” (co-authored with J. Finis McCarver, P.E.), *The National Fire and Arson Report*, Vol. 10, No. 4, August 1992.
- “The Behavior of Flammable and Combustible Liquids,” (co-authored with Laurel V. Waters), *The Fire and Arson Investigator*, Vol. 42, No. 1, September 1991.
- “Vapor Pressures, Flash Points, and the Case Against Kerosene Heaters,” *Fire Journal*, Vol. 83, No. 4, July 1989.
- “Appliance Fires: Determining Responsibility,” (co-authored with R.I. Underwood, P.E.), *The National Fire and Arson Report*, Vol. 7, No. 2, April 1989.

Selected Presentations (1996-Present)

- “Avoiding Wrongful Convictions: Proving the *Corpus Delicti*,” American Academy of Forensic Sciences (AAFS), Jurisprudence Section, February 26, 2010, Seattle, WA.
- “Meeting the Challenge of the NRC Report: Producing Meaningful Mandatory Standards for Forensic Science,” AAFS, Criminalistics Section, February 24, 2010, Seattle, WA.
- “Minimizing Expectation Bias in Fire Investigations,” Workshop # 18, AAFS, February 23, 2010, Seattle, WA.
- “Fire Investigation in the 21st Century,” Workshop # 17, AAFS, February 23, 2010, Seattle, WA.
- “Fire Investigation in the 21st Century,” AOUSC Sixth National Seminar on Forensic Evidence and the Law, January 7, 2010, San Diego, CA.
- “Scientific Protocols for Fire Investigation,” Central Texas Fire Investigators Association Training Course, December 1 and 2, 2009, Shertz, TX.
- “It’s All About the Science: Defense of a Large Fire Loss,” Property Loss Research Bureau 2009 Large Loss Conference, November 3, 2009, Tampa FL.
- “Myths and Misconceptions of Fire Investigation,” “Fire Investigation in the 21st Century,” 64th Annual Florida Arson Symposium, October 19, 2009, Orlando, FL.
- “Forensics Under Fire-Case in Point,” TCCA Actual Innocence Conference, Center for American and International Law, August 18, 2009, Plano, TX.
- “Fire Investigation in the 21st Century,” Ontario Fire College, May 14, 2009, Gravenhurst, Ontario.

Selected Presentations (continued)

- “Forensic Science in the 21st Century: The National Academy of Sciences Report and Beyond,” Sandra Day O'Connor College of Law at the University of Arizona, April 4, 2009, Tempe, AZ.
- “The State of the Art in Fire Investigation,” Inaugural Lecture Series, Centre for Forensic Science and Medicine, University of Toronto Medical School, February 27, 2009, Toronto, Ontario.
- “Watching Paint Dry, Testing Spontaneous Ignition Hypotheses,” AAFS Criminalistics Section February 20, 2009, Denver, CO.
- “Forensic Science Standards: Where They Come From and How They Are Used,” Workshop # 18, AAFS, February 17, 2009, Denver, CO.
- “Toward a More Scientific Determination: Minimizing Expectation Bias in Fire Investigations,” Canadian National Advanced Fire, Arson and Explosion Investigation Training Program, October 28, 2008, Toronto, Ontario.
- “Origin: A Fire Investigator’s Most Important Hypothesis,” Canadian National Advanced Fire, Arson and Explosion Investigation Training Program, October 28, 2008, Toronto, Ontario.
- “Evaluating Arson Cases: Avoiding Wrongful Prosecutions and Convictions,” 63rd Annual Short Course for Prosecuting Attorneys, Northwestern University School of Law, July 22, 2008, Chicago, IL.
- “Toward a More Scientific Determination: Minimizing Expectation Bias in Fire Investigations,” 3rd International Symposium on Fire Investigations Science and Technology, May 20, 2008, Cincinnati, OH.
- “The Mythology of Arson Investigation,” 59th Annual Training Course, International Association of Arson Investigators, April 30, 2008, Denver, CO.
- “Sources of Error in Fire Investigation,” AAFS Criminalistics Section, February 21, 2008, Washington, DC.
- “Evaluating Arson Cases: Avoiding Wrongful Prosecutions and Convictions,” 62nd Annual Short Course for Prosecuting Attorneys, Northwestern University School of Law, July 24, 2007, Chicago, IL.
- “The State of the Art in Fire Investigation,” National Academy of Sciences, Committee on Identifying the Needs of the Forensic Sciences Community, April 23, 2007, Washington, D.C.
- “Critical Evaluation of Arson Charges,” California Attorneys for Criminal Justice, California Public Defenders Association Capital Case Defense Seminar, February 17, 2007, Monterey, CA.
- “Distinguishing Fact from Fantasy in Arson Investigations,” Indiana Public Defenders Council, September 15, 2006, Indianapolis, IN.
- “The Mythology of Arson Investigation,” 2nd International Symposium on Fire Investigations Science and Technology, June 27, 2006, Cincinnati, OH.
- “Critical Evaluation of Arson Charges,” Third National Seminar on Forensic Evidence and the Criminal Law, Administrative Office of the U. S. Courts, January 28, 2006, San Antonio, TX.
- “Sources of Error in Fire Investigation,” Canadian National Advanced Fire, Arson And Explosion Investigation Training Program, October 25, 2005, Toronto, Ontario.
- “Origin: A Fire Investigator’s Most Important Hypothesis,” Canadian National Advanced Fire, Arson And Explosion Investigation Training Program, October 24, 2005, Toronto, Ontario.
- “Distinguishing Fact from Fantasy in Arson Investigations,” Capital Cases: Third Seminar Series, Illinois Supreme Court Committee on Capital Cases, September 8, 2005, Springfield, IL.
- “NFPA 921, Design and Development,” Live, Learn & Pass It On, Training Conference, Gardiner Associates, Brunel University, June 29, 2005, Uxbridge, England.
- “Distinguishing Fact from Fantasy in Arson Investigations,” Capital Cases: Third Seminar Series, Illinois Supreme Court Committee on Capital Cases, May 13, 2005, Chicago, IL.
- “Laboratory Analysis of Fire Debris: Why It’s Important, How It Works, and How to Evaluate a Lab,” Insurance Committee for Arson Control, 15th National Training Seminar, February 3, 2004, Sandestin, FL.
- “Sources of Error in Fire Investigation,” Technical Working Group on Fire and Explosion Investigations (TWGFEX), 3rd Annual Symposium, University of Central Florida, November 21, 2003, Orlando, FL.

Selected Presentations (continued)

- “Fire Debris Analysis: Evolution and Standardization of Techniques,” Technical Working Group on Fire and Explosion Investigations (TWGFEX), 4th Annual Symposium, November 19, 2004, Orlando, FL.
- “Evaluating Allegations of Arson,” National Defense Investigators Association, April 6, 2004, Boston, MA.
- “Investigating Fire Scenes,” University of Rhode Island, Forensic Seminar Series, April 2, 2004, Warwick, RI.
- “Misadventures in Fire Investigations: Common Features, Common Errors, and How to Spot a Dog,” AAFS, Interdisciplinary Session, February 20, 2004, Dallas, TX.
- “Where Are the Scientists?” AAFS, Criminalistics Section, February 19, 2004, Dallas, TX.
- “Bogus Opinion Evidence: Exposing It Without DNA,” AAFS, Plenary Session, February 18, 2004, Dallas, TX.
- “Measurement, Certification, Accreditation,” 30th Annual FBI Symposium on Crime Laboratory Development, Sponsored by the FBI Laboratory. September 25, 2002, St. Louis, MO.
- “Standards Development for Fire Investigations,” Southeastern Arson Seminar, Sponsored by the Georgia State Fire Marshal and the Georgia Fire Investigators Association. August 8, 2001, Brunswick, GA.
- “The State of the Art in Laboratory Analysis,” Southeastern Arson Seminar, Sponsored by the Georgia State Fire Marshal and the Georgia Fire Investigators Association. August 8, 2001, Brunswick, GA.
- “Understanding the Opposing Expert,” Southeastern Arson Seminar, Sponsored by the Georgia State Fire Marshal and the Georgia Fire Investigators Association. August 8, 2001, Brunswick, GA.
- “Consensus Standards: A Priority for Forensic Science,” Crime Laboratory Improvement Program (CLIP) Summit, Sponsored by the U. S. Justice Department. July 14, 2000, Washington, D. C.
- “Cross-Examining Expert Witnesses,” Institute of Continuing Legal Education, 18th Annual Insurance Law Institute, September 14, 1999, St. Simons Island, GA.
- “The Role of Experts in Fire Litigation,” Anglo-American Fire Investigation Conference, Gardiner Associates, Brunel University, June 30, 1999, Uxbridge, England.
- “The Petroleum-Laced Background,” Southern Association of Forensic Scientists Spring Seminar, April 14, 1999, Decatur, GA.
- “Accreditation, Certification and Standardization in the Forensic Sciences,” AAFS Interdisciplinary Session, February 18, 1999, Orlando, FL.
- “The Quality Triangle in the Forensic Sciences: The Role of Standardization, Certification and Accreditation,” AAFS Criminalistics Section, February 18, 1999, Orlando, FL.
- “Low Voltage Leads to High Heat Release,” AAFS Engineering Section, February 13, 1998, San Francisco, CA.
- “A Calculated Arson,” Anglo-American Fire Investigation Conference, Gardiner Associates, Brunel University, June 15, 1997, Uxbridge, England.
- “Misleading Evidence or Misreading Evidence?” Joint Meeting of the Forensic Science Society and the California Association of Criminalists, June 11, 1997, Harrogate, England.
- “Forensic Science Standards: How to Write Them,” AAFS, February 22, 1997, New York, NY.
- “Standardization in the Criminalistics Laboratory: The Role of ASTM Committee E 30,” Eastern Analytical Symposium, November 20, 1996, Somerset, NJ.
- “Differentiation of Asphalt and Smoke Condensates from Liquid Petroleum Products Using GC-MS,” AAFS Criminalistics Section, February 22, 1996, Nashville, TN.

Awards

- American Academy of Forensic Sciences, Criminalistics Section Special Meritorious Service Award, 2008.
- Boy Scouts of America Silver Beaver Award, Atlanta Area Council, 2004.
- ASTM Award of Merit, 2001.
- ASTM E30 Forensic Sciences Award, 1996.