

Gregory J. Haussmann, Ph.D., P.E., C.F.E.I.
Principal Engineer

Professional Profile

Dr. Gregory Haussmann is a Principal Engineer based in Houston, Texas. He is experienced in the investigation and failure analysis of products and systems in the consumer, industrial, and transportation environments. He specializes in mechanical engineering and the engineering analysis of the cause, origin, and propagation of fires and explosions. His research includes design and performance evaluation of combustion devices and systems, with special experience in thermal performance evaluation, carbon monoxide formation, and waste fuel firing. He also designs and evaluates instrumentation and testing programs involving gas and particulate sampling, air pollution, and indoor air quality issues.

Dr. Haussmann has investigated several hundred fire and explosion incidents, including boiler explosions, chemical plant incidents, dust explosions, gas explosions, and residential, commercial, and industrial fires. His investigations have included items ranging from household equipment (appliances, HVAC equipment, water heaters) as well as larger systems (boilers, oil and gas processing equipment, vehicles, agricultural equipment, and pipeline accidents). Dr. Haussmann has testified as an expert witness in various state and federal courts.

Prior to joining Exponent, Dr. Haussmann was a Research Assistant in the High Temperature Gas Dynamics Laboratory at Stanford University and also held the position of Design Engineer in the Environmental Quality Laboratory of the California Institute of Technology.

Academic Credentials and Professional Honors

Ph.D., Mechanical Engineering, Stanford University, 1990

M.S., Mechanical Engineering, Stanford University, 1984

B.S., Engineering and Applied Science, California Institute of Technology (with honors), 1983

Tau Beta Pi National Engineering Honorary Society; Sigma Xi Scientific Research Honor Society

Licenses and Certifications

Registered Professional Mechanical Engineer, California, #M028328

Registered Professional Engineer, Texas, #84193

Registered Professional Engineer, Alabama, # 28050

Registered Professional Engineer, Louisiana, #33439

Registered Professional Engineer, Arkansas, #14603

NAFI Certified Fire and Explosion Investigator (CFEI)
Hazardous Waste Operations and Emergency Response Training, 29 CFR 1910.120
Confined Space Operations Training, 29 CFR 1910.146

Publications

Matta LM, Haussmann GJ. Pipe explosion during pigging procedure. Pipeline and Gas Journal 2008; 82–86.

Haussmann G, Matta L. Flammable vapor ignition by engine exhaust systems. Journal of Applied Fire Science 2002–2003; 11(4).

Ross B, Noakowski P, Haussmann G. Investigation of refractory disintegration in a glass melting furnace and repair remedies. Technology, Law and Insurance, Vol. 1, 1996.

Haussmann G. Fire development and fatality analysis of the 19 April, 1993 fire at the Branch Davidian Mt. Carmel Center, Waco, Texas. Very Large Scale Fires, ASTM STP 1336. Keltner NR, Alvares NJ, Grayson SJ (eds), American Society for Testing and Materials, 1998.

Haussmann G. Evolution and reaction of fuel nitrogen during the early stages of pulverized coal pyrolysis and combustion. Ph.D. Thesis, Stanford University, 1990.

Haussmann G, Kruger CH. Evolution and reaction of fuel nitrogen during rapid coal pyrolysis and combustion. 23rd International Symposium on Combustion, The Combustion Institute, 1990.

Haussmann G, Kruger CH. Rapid pyrolysis and combustion of pulverized Montana rosebud subbituminous coal. 22nd International Symposium on Combustion, The Combustion Institute, 1989.

Presentations and Published Abstracts

Haussmann G. Design for fire prevention. Association of Equipment Manufacturer's Product Safety Seminar, San Antonio, TX, April 2006.

Haussmann G. Fire and explosions—analysis and investigative techniques. Invited Lecture, Department of Aeronautics and Astronautics, Stanford University, May 1994, April 1995, April 1997.

Haussmann G. Indoor air quality and chemical exposure. Presentation to the Alameda County Bar Association continuing education seminar, Oakland, CA, May 1994.

Haussmann G, Kruger CH, Krewson S. The interplay between chemistry and fluid mechanics in the oxidation of fuel nitrogen from pulverized coal. Joint Symposium on Stationary Combustion NO_x Control, New Orleans, LA, 1987.

Hausmann G, Kruger CH. A comprehensive kinetics model for CO oxidation during char combustion. American Chemical Society, New York City National Meeting, 1986.

Prior Experience

Research Associate, High Temperature Gasdynamics Laboratory, Stanford University, 1985–1990

Design Engineer, Environmental Quality Lab, California Institute of Technology, 1983

Engineer, Garrett AiResearch Industrial Division, 1982

Professional Affiliations

- The Combustion Institute (member)
- National Society of Professional Engineers (member)
- National Fire Protection Association (member)
- National Association of Fire Investigators (member)

Deposition / Trial Testimony

Depositions

Harold Harris v. Clean Air Power, American Arbitration Association, No. 70 198 00597 05, Houston, TX, February 2006.

Spain et al. v. McAbee Construction et al., Circuit Court of Tuscaloosa County, Alabama, March 2006.

ANR v. Holloman, 16th Judicial District Court, Parish of St. Mary, Louisiana, August 2006.

Louisiana Farm Bureau and Brown's Farm & Ranch v. Case Corporation and Scott Tractor of Lake Providence, Inc., 6th Judicial District Court, Parish of East Carroll, Louisiana, September 2006.

Staley v. Mr. Heater, Superior Court of Alaska, 3rd Judicial District at Kenai, September 2006.

Travelers Property Casualty Company of America v. FabTech, Inc., Loudon County Circuit Court, Tennessee, Case No. 7414, August 2007.

Everest v. Leviton Manufacturing Company, Inc., Cumberland Superior Court, Maine, October, 2007.

Jose Nevarez, et al. v. Pasadena Refining Systems, Inc., District Court, 333rd Judicial District, Harris County, State of Texas, Case No. 2007-03919, December 2008.

Joseph et al. v. Fluor et al., Civil District Court, Orleans Parish, Louisiana, October, 2008.

Zurich Insurance v. Joseph Oat et al., US District Court for the Southern District of Texas, McAllen Division, November, 2008.

Bustamante et al v. Electrolux and Leviton, US District Court for the Western Division of Texas, San Antonio Division, December, 2008.

Chapman v El Paso Energy Corporation, Fifth Judicial Circuit Court, County of Eddy, State of New Mexico, No. 2001-062, July, 2009.

In Re: Gramercy Plant Explosion at Kaiser, State Court of Louisiana, St. James Parish, 23rd Judicial District, November, 2009.

Mississippi Farm Bureau v. CNH America et al., US District Court, Southern District of Mississippi, Jackson Division, November, 2009.

Troy Lankford vs. Olin Chemical Corporation, Safety Source, Inc. and Joseph Workman, et al., Circuit Court of Washington County, Alabama, May 2010.

State Farm Fire and Casualty Company (as subrogee of Claude Walker) vs Case International Corporation, United States District Court, Western District of Louisiana, Shreveport Division, January, 2011.

Trials and Arbitrations

Harold Harris v. Clean Air Power, American Arbitration Association, No. 70 198 00597 05, Houston, TX, March 2006.

Spain et al. v. McAbee Construction et al., Circuit Court of Tuscaloosa County, Alabama, September 2006.

Valero v. Encompass Power, American Arbitration Association, Houston, TX, December 2006.

Linde Gas v. Zurich American Insurance Company, Houston, TX, May 2007.

Chapman v El Paso Energy Corporation, Fifth Judicial Circuit Court, County of Eddy, State of New Mexico, No. 2001-062, December, 2009.

Mississippi Farm Bureau v CNH America et al., US District Court, Southern District of Mississippi, Jackson Division, March, 2010.