



Exponent[®]
Engineering & Scientific Consulting

Gregory Haussmann, Ph.D., P.E., CFEI

Principal Engineer | Thermal Sciences
Houston
+1-832-325-5711 | gregh@exponent.com

Professional Profile

Dr. Haussmann 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 engineering analysis of the cause, origin, and propagation of fires and explosions.

Dr. Haussmann's 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, burn injuries, and residential, commercial, and industrial fires. His investigations have included incidents ranging from residential (small appliances, HVAC equipment, water heaters, consumer products) to 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 & 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 (Caltech), 1983

Tau Beta Pi National Engineering Honorary Society

Sigma Xi Scientific Research Honor Society

Licenses and Certifications

Professional Engineer, Alabama, #PE28050

Professional Engineer, Arkansas, #14603

Professional Engineer Mechanical, California, #28328

Professional Engineer Mechanical, Louisiana, #PE.0033439

Professional Engineer Mechanical, Texas, #84193

40-Hour Hazardous Waste Operation and Emergency Response Certification (HAZWOPER)

Confined Space Entry (29 CFR 1910.146)

Certified Fire and Explosion Investigator (CFEI)

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)

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

Buehler C, Ogle R, Haussmann G. Flash fire from a fractionator overflow. 2014 Mary Kay O'Connor Process Safety Center International Symposium, College Station, TX, October 28, 2014.

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 NOx Control, New Orleans, LA, 1987.

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

Deposition & Trial Testimony

Depositions

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.

Connor Cook et al. vs The Pep Boys, Scepter, Inc. and Scepter Corporation, United States District Court, Eastern District of Tennessee, Southern Division, June 2011.

Crenshaw vs. CNH America et al, Superior Court of Sumter County, Georgia, September 2011.

Matthew vs Grand Bluff Construction Co. et al., 15th Judicial District, Parish of Vermillion, State of Louisiana, June 2012.

Hospice of East Texas vs Simplex Grinnell et al., United States District Court, Eastern District of Texas, Tyler Division, June 2012.

Novak vs. Kidde et al., In the District Court of Brazoria County, Texas, 23rd Judicial District, October 2012.

Lexinton Insurance vs. Whesco, Fireye and Invesys, United States District Court for the Western District of Wisconsin, September 2013.

Zachry Industrial, Inc. vs. Piedmont Green Power, LLC, American Arbitration Association, Orlando, FL, September 2014.

Tetra Technologies, Inc. vs Veolia Water Technologies, Inc., Non-administered arbitration proceeding, Houston, TX, April 2016.

Hanover Insurance Group; Ace USA as subrogees of Mission Well Services vs Stewart & Stevenson, LLC; Tognum America, Inc. f/k/a/ MTU Detroit Diesel, Inc., District Court of Atascosa County, Texas,

218th Judicial District, June 2016.

Wurster vs The Plastics Group, Inc. d/b/a Wedco, and Dow Chemical Canada, Inc., US District Court, District of Iowa Central Division, September, 2016

Gomez vs Harbor Freight Tools USA, Inc., US District Court, Middle District of Georgia, Athens Division, January, 2019

Hawkins vs Lowe's Home Centers, US District Court, District of South Carolina, Columbia Division, February, 2019

AIG Europe LTD vs Caterpillar Inc. and Dragon Products LLC, United States District Court for the Eastern Division of Texas, Beaumont Division, March, 2019

Jean v Kitchenware, Circuit Court, 11th Judicial District, Miami-Dade County, Florida, July, 2022

Trials and Arbitrations

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

Tangela Brown, et al. vs Georgia Gulf Lake Charles, LLC, 14th Judicial District Court, Parish of Calcasieu, State of Louisiana, July 2011.

Tetra Technologies, Inc. vs Veolia Water Technologies, Inc., Non-administered arbitration proceeding, Houston, TX, June 2016.

Hanover Insurance Group; Ace USA, as subrogees of Mission Well Services, LLC, vs Stewart & Stevenson, LLC; Tognum America, Inc. f/k/a/ MTU Detroit Diesel, Inc., 218th Judicial District, Atascosa County, Texas, January 2017.

Wurster vs The Plastics Group, Inc. d/b/a Wedco, and Dow Chemical Canada, Inc., US District Court, District of Iowa Central Division, April, 2017

CLAIMANT v. RESPONDENT, Arbitration Institute of Stockholm Chamber of Commerce, (virtual) January 2021. Instructed by Claimant.