

President/Fire Protection Engineer**Specialty Fields**

Fire Protection Engineering	Life Safety Assessment
Maintenance & Acceptance Testing	Product Fire Performance
Flammable & Combustible Liquids	Fire Protection Systems Design
Master Planning Community Fire Protection	Building Codes and Standards

Specialized Professional Competence

- ~ Life Safety Assessment: High-rise, laboratories, business, healthcare, assembly, detention and corrections, warehouse/distribution, education, existing buildings, and large mixed use and occupancy.
- ~ Hazard Analysis: Flammable and combustible liquids storage and handling, computer facilities, laboratory facilities, nuclear plants and other Highly Protected Risks.
- ~ Fire Protection System Design: Fire alarm and detection, automatic fire sprinklers, foam systems, fire pumps and water storage facilities, fixed water spray, and gaseous suppression systems.
- ~ Education: Fire science technology at the University level including Fire Protection Structures and System Design, Fire Dynamics, Fire Department Deployment Analysis, Basic Fire Protection Engineering for Allied Professionals, Building Code Analysis

Major Projects and Activities

Initiated, assisted and/or coordinated implementation of Department of Energy Fire Protection Program for Goodyear Atomic Corporation at the uranium enrichment plant in Piketon, Ohio. Performed fire and life safety audits of 57 existing structures and provided fire protection design guidance on new projects including proposed expansion of the facility. Assisted in the investigation of a major water main break in the fire suppression systems supply for the facility resulting in recommended modifications.

Have provided consultation to architects on the development of new facilities and the renovation and rehabilitation of existing facilities. Provides support to architects and engineers for code interpretation and fire protection planning on a wide array of projects.

Developed users guide for the implementation of the Fire Safety Evaluation System in board and care occupancies for the National Park Service under contract to the National Bureau of Standards (now the National Institutes of Standards and Technology). This was an alternative methods design manual for compliance with present day standards for historic structures.

Performed industrial fire protection surveys and audits of organic coatings manufacturing, warehousing and retail facilities throughout the United States. Provided plan review services and assisted underwriters with client evaluations. Developed risk potential for all surveyed locations. Developed educational materials for the paint and coatings industry related to fire protection and static electricity. Represented fire protection concerns on committees for the National Paint and Coatings Association; primarily interested in fire retardant coatings and generation and control of static electricity.

Have served as fire protection and life safety project manager for major renovations and additions to the University of Pittsburgh Medical Center, Presbyterian University Hospital, Montefiore University Hospital and the Eye and Ear Facilities in Pittsburgh, PA. He has provided fire protection and life safety consultation to Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, and Greater Baltimore Medical Center in Baltimore, MD; Kimbrough Army

Hospital, Fort Meade, MD; Children's Hospital of Pittsburgh, PA; and Veteran's Administration Hospital, Washington, DC and Butler, PA. He assisted with the design of fire alarm system replacements and automatic sprinkler systems for the Veteran's Administration Hospital in Butler, PA. Is currently providing fire protection and life safety consultation to the design team for the major expansion and development of a new Children's Hospital for the University of Pittsburgh Medical Center, a \$500 million project involving additions to an existing complex.

Performed numerous fire protection and life safety assessments and recommended upgrades for existing facilities, including 19 Federal Bureau of Prisons facilities across the U.S.; Montefiore University Hospital, Pittsburgh, PA; the former ALCOA Corporate Headquarters, Pittsburgh, PA; University of Pittsburgh Medical School and Presbyterian University Hospital, Pittsburgh, PA; and many federally occupied offices including the Pentagon in the Washington, D.C. metropolitan area. He has performed these services under contract to the United States General Services Administration.

He has over 29 years experience in conducting surveys of existing healthcare facilities for fire protection and life safety. He has prepared *Statement of Conditions and Life Safety Assessments* for all levels of healthcare occupancies from small outpatient centers to 1,500 bed major medical centers. During this process, he has developed long term plans of correction which have been accepted by JCAHO, state and local agencies. He is well versed in the application of NFPA 101, the *Life Safety Code*[®], as he uses it on a daily basis.

Mr. Hicks has conducted basic fire protection engineering training for the Army Corps of Engineers and the Air Force, and basic fire safety for the National Certification Program for Fire Safety in Board and Care Homes for the Developmentally Disabled. He has assisted teaching a Building Fire Safety Course to professors of engineering from around the world at the Emergency Management Institute in Emmitsburg, Maryland. Mr. Hicks is currently lead instructor for the 16th year for the Corps Basic Fire Protection Engineering Course and an instructor for the Fire Suppression Systems course; both 36 hour training classes for architects and engineers.

Served as a member of the District of Columbia Building Code Advisory Committee during the adoption process of the Basic National Building Code (BOCA) and chaired the Fire Safety Sub-Committee for several years. Continues to participate in the development of National Codes and Standards and is currently a member and past chairman of the NFPA Committee on Fire Doors and Fire Windows.

He provided fire protection and life safety consultation for the development of the \$328 million David L. Lawrence Convention Center in Pittsburgh, PA. The unique feature of this facility is a cable supported roof allowing for a 250,000 square feet clear span assembly hall on the second level. He worked closely to develop alternative performance based fire protection for the hall to take the place of automatic sprinkler protection. He has provided fire protection and life safety consultation on the development of numerous research laboratory facilities including projects at Carnegie Mellon University and Rensselaer Polytechnic Institute.

Professional Employment History

Atlantic Code Consultants, President and Principal Engineer, 1987 to present.
University of Pittsburgh, Contract Fire Protection Engineer, April 1993 to June 1994
University of Maryland and University College, Adjunct Professor (part-time), 1978 to 1993.
Chesapeake Engineering International, Inc., Principal Engineer, 1985 to 1987.
Rolf Jensen & Associates, Inc., Senior Fire Protection Engineer, 1983 to 1985.
Verlan Limited, Fire Protection Engineer/Team Leader, 1977 to 1983.
Goodyear Atomic Corporation, Fire Protection Engineer, 1976 to 1977.
University of Maryland, Department of Fire Protection Engineering, Data Analyst (part-time), 1974 to 1976.

Academic Background, Registrations and Memberships

B.S., Fire Protection Engineering, University of Maryland, 1976.
Professional Engineer Maryland, 1988
Member, National Fire Protection Association.
Member NFPA Technical Committee on Fire Doors and Fire Windows (NFPA 80 and 105), past chairman
Fellow, Society of Fire Protection Engineers

Member, Society of Fire Protection Engineers and Engineering Education Committee.
Past President, Chesapeake Chapter, Society of Fire Protection Engineers.
Past President, Three Rivers Chapter, Society of Fire Protection Engineers
Professional Member, International Code Council
Member, Salamander Honorary Society (University of Maryland Fire Protection Engineering)
Past President, Murrysville-Export Rotary
Assistant District Governor, Rotary District 7330
Advisor to the Fire and Safety Glazing Council of the Americas Glass Association

Technical Papers, Articles, Reports Published

"Research Subcommittee Findings," Symposium on Emergency Operations in High Racked Storage, Florence, South Carolina, June, 1981.

"Generation and Control of Static Electricity in the Paint and Coatings Industry," Marketing Development Committee, Steel Shipping Container Institute, Arlington, Virginia, October 1982.

Emergency Operations in High Rack Storage, Chapter 1, Committee on Emergency Operations in High Rack Storage, pp 11-14, June 1983.

A User's Guide for the Fire Safety Evaluation System for the National Park Service, Bush, K.E., Bradley, H., and Hicks, H.D., NBS-GCR-83-427, May 1983.

"Halogenated Extinguishing Systems, Computers: The Spectrum of Loss Prevention," Seventh Annual Seminar, Three Rivers Chapter of the Society of Fire Protection Engineers, Pittsburgh, Pennsylvania, March, 1985.

"Horizontal Exiting, Means of Egress - Innovation and Applications Seminar," Chesapeake Chapter of the Society of Fire Protection Engineers, College Park, Maryland, March, 1986.

"Engineering of Fire Sprinkler and Water Supply Systems Workbook," Society of Fire Protection Engineers Short Course, Boston, Massachusetts, 1988.

"Building Codes - A Perspective - Fire Retardant Coatings and Technical Research Developments for Improved Fire Safety," Fall Conference, The Fire Retardant Chemicals Association, Annapolis, Maryland, October, 1988.

"Fire Safety In Board and Care Homes - A Training Program:" Member Focus Group and Instructor, prepared for United States Department of Health and Human Services by Bonnie Walker and Associates, November, 1988.

"Conflicts Between State and Local Code Issues During Construction or Renovation Projects" - 1988 Health Care Forum, Hospital Engineers of Southwestern Pennsylvania, Pittsburgh, Pennsylvania, April, 1989.

"The Fire Protection Engineer and The Authority Having Jurisdiction," National Fire Protection Association Annual Meeting, Washington, D.C., May 1989.

"Microprocessor Based Fire Alarms and Smoke Management," International Conference on Municipal Code Administration. Building Safety and the Computer, Manitoba Building Officials Association, Inc., Winnipeg, Manitoba, Canada, September, 1989.

"Microprocessor Based Fire Alarms and Smoke Management," National Fire Protection Association Annual Meeting, Society of Fire Protection Engineers Education Seminar, San Antonio, Texas, May, 1990.

Basic Fire Protection Engineering Course, United States Army Corps of Engineers, prepared for Bonnie Walker & Associates, Bowie, Maryland, 1990 - 1993.

"Playing by the Rules: Code and Standard Uniformity," National Commercial Buildings Exhibition and Conference, Cincinnati, Ohio, September, 1990.

"Fire Protection for Government Owned and Occupied Buildings - Update on Codes and Standards," Washington Federal Safety Council, Silver Spring, Maryland, September, 1990.

"Fire Ratings for Glass Block: What They Don't Tell You," *The Construction Specifier*, February, 1991.

"Fire Rated Glazing Panel", National Glass Association Annual Show and Convention, Seminar Number 605, San Antonio, Texas, April 3, 1992.

"Fire Rated Glazing", *Progressive Architecture*, April, 1992.

"Sprinkler Retrofit Tendencies of Major Cities for High-rise Buildings", Update ... Fire Protection and Life Safety Symposium, Florida Chapter of the Society of Fire Protection Engineers, Orlando, Florida; September, 1992.

"Voice Fire Alarm Systems - Into the Future," National Fire Protection Association Annual Meeting, Orlando, Florida, May 1993.

"Voice Fire Alarm Signaling Systems - Design Considerations", 41st International Conference on Campus Safety, Campus Safety Association, West Virginia University, Morgantown, West Virginia, June, 1994.

Basic Fire Protection Engineering Course, United States Army Corps of Engineers, prepared for MSC Associates, Inc., Oakton, VA, 1993 - 2002. This is a comprehensive course covering design issues for architects and engineers from military agencies and the Federal Aviation Administration. It is offered twice each year.

Fire Protection and Life Safety Considerations in Healthcare Facility Design and Maintenance, an 8 hour short course for healthcare facilities management personnel, Westmoreland Regional Hospital, February, 1996.

MPDSI: Designing Building Fire Safety Course, Fire Detection and Suppression Systems Analysis, prepared for Emergency Management Institute, National Emergency Training Center, Emmitsburg, Maryland, July, 1996, July, 1997, August, 1998 and August 2000.

Fire Suppression Systems Design Course, United States Army Corps of Engineers, prepared for MSC Associates, Inc., Oakton, VA, 1996 - 2002. This course concentrates on design of sprinkler and water supply systems for military facilities and incorporates computer system calculations using the HRS HASS program.

Fire Protection and Life Safety Considerations in Healthcare Facility Design and Maintenance, an 8 hour short course for healthcare facilities management personnel, Johns Hopkins Hospital, October, 1997.

National Fire Protection Association Fire Protection Handbook, Chapter on Confinement of Fires in Buildings, 19th edition, to be published in 2002.

"Fire and Smoke Dampers – Design, Installation and Testing", Society of Fire Protection Engineers Three Rivers Chapter, Engineering Society of Western Pennsylvania, Pittsburgh, PA, April 17, 2002.

In addition to the presented papers and published documents, we have been interviewed and quoted in a number of professional magazines on topics related to fire protection engineering.