

Louise C. Speitel

(bio.) Update 2022-06-08

Louise has worked with the FAA Fire Safety Section as a research chemist for 46 years. As a chemist, she has developed numerous methods of analysis for fire gases. She continues to provide analytical chemistry support for micro-scale to full-scale fire tests of all types (post-crash, in-flight, cargo and engine).

Louise has a keen interest in the health and survival aspects of exposures of passengers to toxic and thermal hazards. She has developed survival models based on animal and primate exposures to combustion gases and applied these models to full-scale aircraft fire tests. She also authored a benefit analysis of smoke hoods based on past accidents.

Louise co-developed a simplified kinetic model for Halon and Halon replacement extinguishing agents to assess the cardio toxic hazard for exposures to changing concentrations of agent. This kinetic model was used to develop AC 20-42D safe-use guidance for hand extinguishers on aircraft. She has authored/co-authored status reports on Halons and options to the use of Halons.

Louise is active in developing fire standards and codes. She has served on the NFPA committees on Clean Agent Fire Extinguishing Systems, writing standards for Halon replacement extinguishing systems. She is also active with various ISO committees developing standards for sampling and analysis of combustion gases using FTIR and developing standards for assessing smoke toxicity.

Education

BS Chemistry, Hunter College of the City University of New York, 1973

MS Chemistry, Purdue University, 1975