## Safety and Health Guidelines for Fire and Explosion Investigators

by Michael L. Donahue

Today's fire and explosion investigators work in environments and conditions that are considerably more hazardous than those 20 years ago. The widespread use of synthetic building materials and furnishings has greatly increased the amounts and kinds of toxic byproducts of combustion. In light of the recent acts of terrorism in the United States and abroad, investigators must also be aware of the potential for exposure to chemical and biological agents and hazardous materials, not to mention the dangers posed by special hazards such as clandestine drug laboratories, weapons of mass destruction, and explosive incidents. However, many public and private organizations have failed to

adequately address these newly recognized occupational safety and health hazards by modifying their standard operating procedures and training programs for investigating fires and explosions. In-service training programs, seminars, and conferences for investigators seldom address occupational safety and health training. In addition, safety and health are often taken for granted since most investigators assume that by the time they arrive at a scene, the potential hazards are either eliminated or diminished to the point that they are no longer concerns.

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Regardless of the scientific and technological advances in fire and explosion investigation during the past several years, the successful investigation of fires and explosions still requires investigators to work in potentially hazardous environments that may result in personal injury, illness, and death. Many investigators have been diagnosed with disabling and debilitating injuries and chronic illnesses that surfaced days, months, and years after investigations were concluded. Although investigators typically begin their investigations into the origins and causes of fires and explosions after fire-suppression operations are completed, they face many of the same safety and health hazards that confront firefighters during fire-suppression and overhaul operations.

The safety and health of fire and explosion investigators are increasingly key issues for many organizations and are becoming priorities to many investigators. In recent years, numerous injuries, illnesses, and deaths associated with the investigation of fires and explosions have been



documented. Many investigators have been diagnosed with a variety of cancers that occupational physicians believe may result directly from exposures that occur due to investigators' job duties and responsibilities.

Although many fire service organizations have focused on the safety and health of firefighters, this same level of awareness, funding, and research has not extended to fire and explosion investigators. Few available resources offer any specific guidance to assist organizations in developing the necessary policies, procedures, and training programs for investigators to comply with federal, state, and local occupational safety and health requirements.

Safety and Health Guidelines for Fire and Explosion Investigators is one of the most comprehensive occupational safety and health resource specifically designed for fire and explosion investigators available. It contains the most up-to-date safety and health-related information for federal, state, local, and private investigators based on guidelines and procedures recommended by some of the nation's leading authorities and resources in the following disciplines:

- Fire and explosion investigation
- Occupational safety and health
- Hazardous materials emergency planning and response
- Weapons of mass destruction
- Clandestine drug laboratories

Safety and Health Guidelines for Fire and Explosion Investigators is designed to be part of every investigator's formal training in occupational safety and health. As such, it is an essential complement to their training in conducting fire or explosion investigations. It addresses the following major subject areas:

- Potential safety and health hazards
- Fire and explosion scene safety practices and procedures

- Occupational safety and health administration regulations and voluntary consensus standards
- Hazardous waste operations and emergency response rules
- Hazardous materials incident operations for investigators
- Weapons of mass destruction incidents
- Clandestine drug laboratories
- Fire and explosion investigation safety and health program management guidelines
- Safety, health, and investigative sources of information

The book discusses a number of actual case histories of incidents in which fire investigators were injured or killed, and it emphasizes important safety lessons learned to prevent similar incidents. It includes over 60 technical references and links to more than 100 Internet Websites dedicated to occupational safety and health issues and fire and explosion investigation.

Safety and Health Guidelines for Fire and Explosion Investigators is a unique resource specifically designed for fire and explosion investigators that is based on federally mandated occupational safety and health regulations, national consensus standards, and recommended practices, procedures, and guidelines that have proven effective in reducing the incidence of accidental injury, exposure, and death. Any fire department, law enforcement agency, or insurance company investigator who conducts fire and explosion investigations will greatly benefit from the information contained in this book.

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