

What to Expect During a NIOSH Investigation

At NIOSH, we are notified of a line-of-duty death in a number of ways:

- The United States Fire Administration (USFA)
- A fire department representative
- The International Association of Fire Fighters (IAFF)
- State Fire Marshal's Offices
- Media coverage

We conduct investigations of both career and volunteer fire fighter line-of-duty deaths. Once we are informed of a fatality, we review each event and determine whether or not to initiate an investigation. We may also investigate select injury and near-miss events that may be new or emerging hazards in the fire service.

If we decide to conduct an investigation, a NIOSH representative will contact the fire department to enlist their cooperation and schedule a site visit. For traumatic injury deaths, we work to conduct a site visit within three weeks of the incident. A fire department's decision to participate in the FFFIPP is voluntary. However, past participants recognize the value of an objective, independent investigation that focuses on developing recommendations to prevent future injuries and deaths.

We visit the incident site to gather information and take pictures and measurements. We review all applicable documents. This could include:

- Department standard operating procedures
- Dispatch records
- Training records for the victim, Incident Commander and officers
- The victim's medical records (where applicable)
- Coroner/medical examiner's reports
- Death certificates
- Blueprints of the structure
- Police reports
- Photographs
- Video

We interview fire department personnel and fire fighters who were on the scene at the time of the incident. The interview process is voluntary and witnesses' statements are not made under oath or reviewed by the witness. Because the interviews are not recorded, we rely on our interview notes and the applicable documents to describe the conditions and circumstances leading to the fatalities or injuries. We provide these descriptions in our reports only to provide context for our recommendations to prevent similar occurrences. We may work closely with other investigating agencies. When we do not have the necessary subject matter expertise, we enlist the help of other experts, such as experts in motor vehicle incident reconstruction, building construction or fire growth modeling.

In cases that could be due to respirator or personal protective clothing performance problems we will request the equipment or clothing be sent to the NIOSH National Personal Protective Technology Laboratory for evaluation.

Once the investigation is completed, we summarize the sequence of events related to the incident and prepare a draft report. Each department, union (if present), or family (where applicable because some draft reports includes personal or medical history) will have the opportunity to review this portion of the report. This helps ensure it is factually accurate. The report is then finalized and recommendations are added to prevent death and injuries in similar circumstances.

In traumatic injury incidents, fire service subject-matter experts also review the draft reports and recommendations. Once the fire department, union (if present), and family (where applicable) have received the final copy of the NIOSH incident report, it is posted on the FFFIPP website. The reports are anonymous and do not name the fire department, victim(s) or other fire fighters involved in the incident.

Contact Us

If you have further questions concerning the NIOSH Fire Fighter Fatality Investigation and Prevention Program contact us at (304) 285-5916 or please visit our website www.cdc.gov/niosh/fire to:

- Contact the program
- Access all individual investigation reports
- Search for specific topics (e.g., training deaths, heat stroke deaths, etc.)
- Download other related fire fighter publications

To receive NIOSH documents or more information about occupational safety and health topics, contact NIOSH at: 1-800-CDC-INFO (1-800-232-4636)

TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov

or visit the NIOSH Web site at: www.cdc.gov/niosh

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The NIOSH Fire Fighter Fatality Investigation and Prevention Program



**Department of Health and Human Services
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health**



The NIOSH Fire Fighter Fatality Investigation and Prevention Program

The United States currently depends on approximately 1.1 million fire fighters to protect its citizens and property from losses caused by fire. Of these fire fighters, approximately 336,000 are career and 812,000 are volunteers. The National Fire Protection Association (NFPA) and the U.S. Fire Administration estimate that on average, 90 to 100 fire fighters die in the line-of duty each year.

In 1998, Congress recognized the need for further efforts to address the continuing national problem of job-related fire fighter deaths and funded NIOSH to implement a fire fighter safety initiative. With fire service stakeholder input, we developed the Fire Fighter Fatality Investigation and Prevention Program.



Fire Fighter Fatality Investigations

The NIOSH Fire Fighter Fatality Investigation and Prevention Program (FFFIPP) conducts independent investigations of select fire fighter line-of-duty deaths. We do this to provide recommendations to prevent future deaths and injuries. The FFFIPP is a public health practice investigation program. We do not conduct our investigations to enforce compliance with state or federal job safety and health standards. We also do not determine fault or place blame on fire departments or individual fire fighters.

Program Goal

Our program's goal is to learn from these tragic events and prevent future similar events. We do not investigate every fire fighter death. We have investigated approximately 40% of fire fighter deaths since the program's start in 1998. We prioritize fatality investigations using a decision flow chart, which is available on the FFFIPP website. Investigation priorities may change based upon the ongoing review of fatality data on leading risks to fire fighters and on fire service stakeholder input.

Program Objectives

- Better identify and define the characteristics of line-of-duty deaths among fire fighters
- Recommend ways to prevent deaths and injuries
- Disseminate prevention strategies to the fire service.

Cardiovascular Disease (CVD) Deaths

NFPA data show that sudden cardiac death is the most common type of on-duty death for fire fighters. Our investigations assess personal and workplace factors. Personal factors include identifying individual risk factors for coronary artery disease. The workplace evaluation:

- Estimates the acute physical demands placed upon the fire fighter
- Estimates the fire fighter's acute exposure to hazardous chemicals
- Assesses fire department coronary artery disease screening efforts
- Assesses fire department efforts to develop fitness and wellness programs.



Traumatic Injury Deaths

Our program investigates select fireground and non-fireground fatal injuries resulting from a variety of circumstances, such as:

- motor vehicle incident
- burns
- falls
- structural collapse
- diving incidents
- electrocution

We may also investigate select non-fatal injury events that suggest the potential to identify new or emerging hazards. Our staff experts in personal protective equipment and respirators also assist with investigations in which the function of protective clothing and respiratory protective equipment may have been a factor in the incident. They evaluate the performance of the protective clothing and/or self-contained breathing apparatus (SCBA) and conduct evaluations of SCBA maintenance programs upon request.

Each investigation results in a report summarizing the incident that includes specific recommendations for preventing similar events.

Information Dissemination

We post all investigative reports onto the NIOSH Web site (<http://www.cdc.gov/niosh/fire>) and notify subscribers to the FF Safety Announcements of each posting. All NIOSH reports and publications are public domain information and may be freely copied and reproduced for training and educational purposes.

Participation on Standards Setting Organizations

We participate on a number of National Fire Protection Association (NFPA) and other consensus standard setting committees. This direct participation allows key findings from our investigations to be submitted directly to the organizations and committees best positioned to influence change to improve fire fighter safety and health.

