



National Fire Protection Association

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To Whom It May Concern:

Thank you for the opportunity to comment on NIOSH's Fire Fighter Fatality Investigation and Prevention Program (FFFIPP).

NFPA makes use of the NIOSH FFFIPP output in three main areas: 1) our own annual firefighter fatality study; 2) our standards development work; and 3) in our handling of data requests related to the fire service.

For the firefighter fatality study, we find the thorough reporting of the circumstances surrounding each fatality to be invaluable. Details included in the investigation reports are often not available from other sources. The clear, relevant recommendations for each incident and the consistent reporting format make the investigations extremely useful in our efforts. With this information, we are able to develop a more accurate database, allowing us to better identify overall trends.

NFPA's technical committees are constantly reviewing their codes or standards to determine if the existing requirements are working or whether new requirements should be added. Such decisions are made using the best available information which sometimes is less than complete. The firefighter fatality investigation program has provided both detailed information for technical committees to use and technical staff who are involved with the program to participate as members of the technical committees to help interpret the information and develop the standards language needed to address the problems. NIOSH's investigation program directly impacts NFPA 1500, 1581, 1582, 1584, 1710, 1720, 1901, and 1982.

At NFPA, we are frequently asked questions about firefighter deaths and injuries, which we answer with a combination of statistics over a range of years and specific examples. We have national statistics available through other sources. The NIOSH reports provide excellent details

and specific recommendations that the requesting fire department can then incorporate into their training programs and operating procedures. The anecdotal material is used to flesh out the statistics, and we often provide links to the NIOSH FFFIPP reports along with the trend data related to the question.

NIOSH prepared a report, *National Institute for Occupational Safety and Health (NIOSH) Fire Fighter Fatality Investigation and Prevention Program, 1998 - 2005*, which summarizes the progress of the program and outlines possible future activities for this initiative. Input from stakeholders was requested in several areas. We extracted 13 specific questions in seven areas in this document.

- 1) Should fatality investigations continue to be the focus of the FFFIPP, with modest decreases in the intensity of fatality investigations to support more outreach and research?
- 2) What type of investigations should receive high priority for investigation, and how and when should prioritization change over time?

Fatality investigations should continue to be the focus of the FFFIPP. Ideally, ways should be found to maintain or increase the level of investigations while supporting more outreach and research. Any decrease in the number of fatality investigations should only occur because of a shift in focus to investigate more on-duty firefighter injuries. The NIOSH investigation program documents in a standard format the reasons for the fatality and recommendations that will help other fire departments prevent similar occurrences. The reports can be used by fire departments to evaluate the adequacy of their own health and safety programs, and for prioritizing and focusing training efforts. Research should not be done at the expense of data collection; however, there needs to be a balance between investigations and research. NIOSH should be funded to follow up and perform research when the firefighter fatality investigations reveal problems that might be solved with product changes (firefighter protective clothing or firefighting tools and equipment), or cultural or procedural changes that should be reflected in training and educational materials for the fire service. Research projects are typically going to require further investigations and data collection in order to have the relevant data to focus the research and monitor its effectiveness.

Ideally, NIOSH should be provided with the necessary resources to allow them to investigate all on-duty firefighter fatalities.

- 3) What is the value and need for summary publications like the Alert Bulletins?
- 4) How might NIOSH make such documents more useful to the fire service and occupational safety and health community?

5) What specific topics should they address in these documents?

The NIOSH Alerts are a very effective way to take the overall fatality statistics available from NFPA (which indicate the size of a problem) and combine them with the findings of the fatality investigations relevant to a specific topic that focuses on the cause of fatalities and their prevention.

The recommendations listed in the NIOSH Alert Bulletins and firefighter fatality reports often refer to NFPA standards. We would like to point out that NFPA now makes all of its codes and standards available for viewing, free of charge. Directing their readers to this new resource could make the NIOSH reports even more valuable to their constituency (http://www.nfpa.org/aboutthecodes/list_of_codes_and_standards.asp).

An important specific topic that should be addressed is the role incident management systems can play in preventing fatalities, or reducing the risk of fatalities, based on NIOSH investigations that document the effect of the lack of such systems.

6) Any suggestions on dissemination of NIOSH reports and publications focused on firefighter safety and health?

NIOSH has done an excellent job searching out ways to disseminate its investigation reports. Making the incident reports available to fire service magazines for publication is getting the information to individual firefighters. Simply sending hardcopy reports or emailing electronic versions to fire departments generally will not get the information into the hands of individual firefighters. The email notification available on the NIOSH website is another excellent means to reach interested individual firefighters.

We suggest that NIOSH establish a web-based conference board where firefighters could post comments, discuss changes they made to their SOPs based on the lessons learned, or other information for the "good of the order." This would give NIOSH feedback on their investigation program and would also encourage fire departments to incorporate the findings into their training and procedures.

7) Should NIOSH continue to aggressively conduct outreach and partnership activities to foster increase use of FFFIPP findings and products by fire service organizations and pursue activities that complement and support prevention efforts of others?

8) Are there any specific suggestions for recommended areas for concentration?

NIOSH staff participation in the NFPA codes and standards process is extremely valuable. Distilling the findings from the investigations into suggested changes to codes and standards is possibly the most direct way that NIOSH can effect a reduction in firefighter deaths and injuries.

Beyond that, NIOSH could study the barriers that prevent their recommendations from being adopted by fire departments. For example, implementing health screening programs should have an effect on CVD-deaths, but fire departments do not always follow NFPA 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments*. What are the barriers that prevent implementation of a given standard that is designed to prevent or lessen fire fighter injuries or deaths? Once we have a better understanding as to whether the barriers are financial, lack of awareness, cultural, or some other reason, they can be addressed.

9) Is there value in, or need for, NIOSH to conduct data analyses of available data (from NFPA/USFA/NEISS/BLS) to guide NIOSH fatality investigations, add to knowledge about patterns of firefighter injury and illness, risk factors for injury and illness, level of risk experienced by firefighters and identify needed improvements in available surveillance data?

Epidemiological studies of deaths and injuries, based on NIOSH investigations and any other available data, would have great value and NIOSH would seem to be the ideal agency to conduct those studies. These studies could address questions concerning cancer rates among in the fire service as compared to other occupations; illness rates resulting from long-term exposures, etc. Some data from workers compensation programs might be used to study patterns in firefighter injury and illness, as well as the other data sources mentioned.

10) Should NIOSH increase efforts to foster and conduct research that is not centered on fatality investigations?

11) What specific research is needed?

12) What specific interventions should NIOSH evaluate?

NIOSH should look more at injuries, given that the number of on-duty firefighter fatalities is decreasing. NFPA estimates that approximately 75,000 firefighter injuries occurred in 2004. Almost half of these were on the fire ground. Approximately 3,000 were due to burns, 2,000 to smoke or gas inhalation and 600 to a combination of burns and smoke inhalation. In addition, close to 1,000 firefighters are stricken by non-fatal heart attacks and strokes annually while on duty. Clearly, there are a vast number of injuries each year that might be prevented if the fire service knew more about how they occur and steps they can take to prevent them. The focus should be on the severe injuries

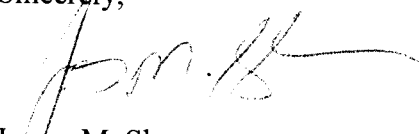
10) How can NIOSH measure the performance and impact of the FFFIPP, given that NIOSH is a research agency without a direct role in making changes in the workplace, and that about half the deaths result from CVD, which develops over decades?

It is unrealistic to expect that the NIOSH fatality investigation program, in only seven years, could be shown to have single-handedly reduced the U.S. firefighter fatality problem. Each year, of the estimated 1.1 million career and volunteer firefighters in this country, approximately 90 are killed while on-duty. Of those 90 firefighters, approximately 70 die of fatal injuries suffered while dealing with emergency incidents. The trauma investigations have great value in clearly showing how fatal injuries occurred and make excellent training tools for fire departments, but directly translating the investigation findings into changes in culture or behavior is beyond the role of NIOSH. The fire service leadership and members of the fire service must assume that role and focus on the results of the investigations. Participating in a process such as the NFPA standards-making system is another way that NIOSH staff can impact the way the fire service benefits from the fire investigations. NIOSH staff are often the most familiar with the circumstances of the fatality and can suggest specific changes to the safety and health standards that are used to regulate processes and procedures that could prevent future reoccurrences. Fatalities due to sudden cardiac death, which make up almost half of the emergency-duty-related deaths of career and volunteer firefighter deaths, are largely due to risk factors that take decades to develop and substantial time to address (weight, cholesterol, hypertension, etc.).

In conclusion, we note that, more than ever before, people at all levels throughout the fire service are focused on creating a safety culture in the fire service, and focusing on behaviors and wellness programs. This is helped in part by the constant drumbeat as NIOSH reports are released. In the past, with fatality figures reported only annually, we had just a brief time each year when the fire service's attention, and the public's, was focused on firefighter safety. The NIOSH fire investigations make a difference. Who will fill the void if the level of investigations is cut back? The investigation reports, the research projects that NIOSH can build around the investigations, and the NIOSH Alert Bulletins are all essential components in a drive to inform firefighters of the situations or circumstances that have led to firefighter fatalities, to improve the relevant codes and standards, and to legislate, enforce and fund changes in the fire service that will make firefighters safer.

Again, we would like to thank you for the opportunity to participate in the stakeholders' meeting last month and to provide this feedback.

Sincerely,



James M. Shannon
President