



THE FIRE PROTECTION RESEARCH FOUNDATION

A Five-Year Research Agenda for the Fire Protection Research Foundation

The next 25 years will bring many challenges to fire safety in the built environment. Last year, in celebration of our 25th anniversary, the Fire Protection Research Foundation convened a series of meetings to learn from members of NFPA technical committees, staff, and leadership about the strategic issues likely to affect future fire safety. The goal was to identify key emerging challenges for NFPA standards and how we might structure ourselves to develop research information to help address those challenges. The result is a research agenda designed to focus and set priorities for the Foundation's research program in the near term and to ensure that it is meeting the emerging research needs of NFPA technical committees and other constituents.

The Foundation currently has active research programs in the following areas, which correspond with major technical committee activities at NFPA: detection and signaling; electrical safety; fire suppression; firefighter protective clothing and equipment; firefighting tactics; hazardous materials/commodity storage; and transportation. Over the past five years, we have undertaken major research projects in each of these areas to meet the NFPA committees' needs for technical information in support of standards development. These projects range from research supported by the Department of Homeland Security on firefighter protective clothing and equipment and firefighting tactics, to industry-supported research to determine hazards associated with storage of commodities and associated automatic sprinkler protection, to advancing our understanding of fire and smoke detection and the long-term performance of electrical safety equipment.

In our meetings with the NFPA family, we structured the conversation around three strategic areas: our changing demographics as a society; the new materials and technology we are introducing; and the increasing concern about sustaining our natural resources. We developed a set of strategic issues within this framework. These issues, **described in Appendix A**, represent the input of over 350 leaders in NFPA codes and standards development. All will have an impact on the future of fire safety and NFPA standards.

The Foundation staff and leadership have reviewed this input to determine how it should shape our near-term research priorities, and a research agenda, comprised of six thrust areas, has been developed. These areas are a subset of broader strategic issues being considered by the Foundation. Their selection as our current focus took into account our mission in support of the NFPA mission and activities standards and the importance of addressing issues emerging for

NFPA committees; the Foundation's structure and capabilities; and the current interest of our supporters and stakeholders. Those issues include:

- Assessing the hazards of changing building furnishings, storage contents, and configurations
- Developing performance criteria for advanced fire detection and suppression systems
- Determining performance issues for advanced firefighting equipment and tactics to ensure that they meet the real needs of first responders
- Evaluating the effectiveness of fire and electrical safety systems as they age in place
- Developing guidance on the fire and electrical safety infrastructure needed for alternative fuels and energy sources
- Analyzing fire safety strategies for the growing aging and disabled population
- Developing fire protection strategies within the context of environmental considerations

The Foundation has been active in each of these areas, which have all been identified by NFPA's codes and standards technical committees, as well as by industry leadership as areas of increasing importance to fire safety.

Over the next five years, we will use this strategy to guide us as we further define specific research needs, projects, and stakeholders. The Foundation will revisit the agenda periodically to ensure that it adequately addresses the near horizon for NFPA codes and standards. We look forward to working with all those within the NFPA family to improve the foundation of NFPA's fire safety codes and standards.