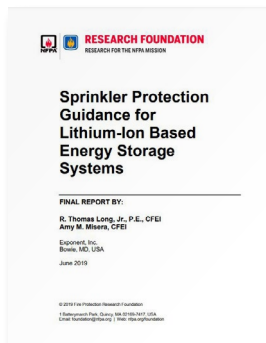


FPRF IMPACT ON THE FIRE SUPPRESSION SYSTEMS INDUSTRY



The Fire Protection Research Foundation (FPRF) researches the performance of suppression systems so the fire protection industry can have the latest information and knowledge to design and maintain solutions that perform as intended. Since 1982, FPRF has conducted a significant number of research studies to address the sprinkler industry's biggest challenges including but not limited to: the protection of a variety of storage arrangements and emerging technologies; the examination of the performance of inspection, testing, and maintenance of sprinklers; and the evaluation of the impacts of various clean agents and applications. Some of the recent projects are shown here.

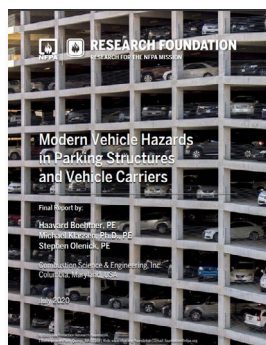


Sprinkler Protection Guidance for Lithium-Ion Based Energy Storage Systems (2019)

Overview: Determines sprinkler protection guidance for lithium-ion battery-based energy storage for commercial occupancies.

Impact on Codes & Standards: Provided information to the technical committees for NFPA 13, *Standard for the Installation of Sprinkler Systems*, and NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*.

Impact on Industry: Provides information to fire protection and fire service communities on performance of sprinklers for these systems in a building.



Modern Vehicle Hazards in Parking Structures and Vehicle Carriers (2020)

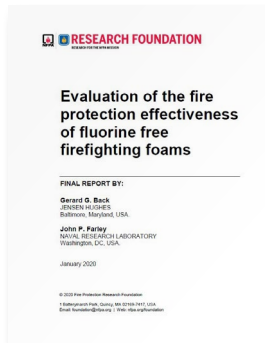
Overview: Analyzes current scientific literature regarding the fire hazard modern vehicles represent to parking garage and marine vessels, as well as knowledge gaps and areas of research required to address the hazard.

Impact on Codes & Standards: Provided information to technical committees for NFPA 13, *Standard for the Installation of Sprinkler Systems*, and NFPA 88A, *Standard for Parking Structures*.

Impact on Industry: Raises awareness to the fire protection community on the hazards of modern vehicles and the potential need to update fire protection requirements for open garages.



FPRF IMPACT ON THE FIRE SUPPRESSION SYSTEMS INDUSTRY

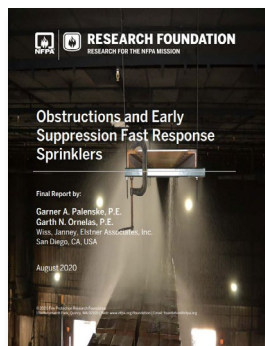


Evaluation of the Fire Protection Effectiveness of Fluorine Free Firefighting Foams (2020)

Overview: Determines the firefighting capabilities for four fluorine free foams and one short chain C6 AFFF formulation as a function of application rate (gpm/ft²) and discharge density (gal/ft²) for a range of test parameters including fuel type, water type, and fuel temperature.

Impact on Codes & Standards: Informed the technical committee responsible for the 2021 edition of NFPA 11, *Standard for Low-, Medium-, and High-Expansion Foam*, where the findings from this study were summarized as a new Annex H, "Synthetic Fluorine-Free Foam (SFFF) Research Testing Summary."

Impact on Industry: Provided information and knowledge for other industrial reference documents such as the American Petroleum Institute's foam transition guidance document.



Obstructions and Early Suppression Fast Response (ESFR) Sprinklers (2020)

Overview: Investigates the impact of obstructions on ESFR sprinklers in a warehouse setting to inform the NFPA 13 technical committees.

Impact on Codes & Standards: NFPA 13 Technical Committee revised the 2022 edition to address isolated and continuous obstructions below ESFR sprinklers.

Impact on Industry: Reduces challenges designers face by providing information and a tool that simplifies the decision-making process for the placement of ESFR sprinklers in relation to obstructions.

Learn More

Have a research need? Submit your project idea on our [website](#).

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- ▶ Become a project sponsor.
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