



RESEARCH FOUNDATION

RESEARCH FOR THE NFPA MISSION

Enhancing Incident Commander Competencies for Management of Incidents Involving Pipeline and Rail Car Spills of Flammable Liquids

PROJECT SUMMARY

OCTOBER 1, 2015

Background

In the past two years there have been several emergency pipeline and rail car incidents involving crude oil spills in municipalities in North America. These incidents often involve a complex interaction with municipal authorities, the fire service as the first responders, and industry personnel. Experience has shown that the local personnel often do not have the required in-depth knowledge of the hazard or appropriate response techniques, thereby taxing the ability of local responders to manage the incident in a safe and effective manner. There is no standardized template or reference point to guide agencies with responsibility for these responses with pre, during, and post incident best practices; this challenge is shared by small and large departments alike.

NFPA publishes a nationally recognized suite of standards for the emergency response community including NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents. Chapter 8 of this standard provides requirements for competencies for incident commanders responsible for these incidents and is a widely used reference. Having an accepted nationally recognized standard ensures a common understanding of the knowledge and competencies needed by those incident commanders trained to the requirements of NFPA 472 and facilitates communications amongst all parties in the emergency. The standard is written from a broad perspective - establishing a framework that can be applied to a wide variety of incidents, but does not provide specific guidance information to address the crude oil pipeline/rail hazard.

The Department of Transportation's Pipeline Hazardous Materials Safety Administration has provided a grant to the Foundation to meet this need.

Project Goal

The goal of this project is to develop a tool for incident commanders for management of incidents involving pipeline and rail car spills of crude oil that addresses the competencies for incident commanders as outlined in Chapter 8 of NFPA 472. The tool would support pre incident preparation by guiding the user to identify how the agency complies with the Chapter 8 incident commander competencies, and generate a complete document that could serve as the foundation for an Incident Action Plan (IAP). The tool consists of a guidance document and an electronic application tool.

Project Tasks:

1. **Literature Review and Development of Strawman Guidance:** review current information including current best practices, incident specific protocols and lessons learned, industry

- guidance on hazards, (e.g. Enform training material, AAR Rail Transportation 101 program, NFPA 472 and other relevant standards)
2. **Scope and Outline of Guidance Document:** The scope will address the following NFPA 472 knowledge requirements: analyzing the incident; planning the response; developing an incident action plan; implementing the planned response; evaluating progress; and terminating the incident.
 3. **Guidance Document and Tool Delivery:** The guidance document will be prepared by a Foundation contractor, with oversight from a project technical panel of stakeholders from the emergency response community and made broadly available in the community. An electronic tool based on the document will also be made available to the community.

Schedule: Completion is scheduled for October 1, 2016