

PHMSA/USFA-NFA Crude Oil Emergency Response Initiative

Background

There has been a recent rapid increase in energy production in the United States involving crude oil and ethanol moving by rail and truck from the oil fields. One of the epicenters of this energy boom is the Bakken Shale Formation, a rock unit that covers approximately 200,000 square miles in Montana, North Dakota, and Saskatchewan, Canada.

With this increase in production, comes the need to safely transport this product across the country. Currently, many companies are building pipeline facilities, however the majority of crude oil from this region is being moved by rail and highway transportation to refineries throughout the country. With the increased movement of this product, incidents have occurred and it is important that the risks of any potential future incidents be minimized through effective emergency planning, preparedness, response, outreach, and training. Public safety and other local officials generally do not have adequate information or actionable data about the materials transported through their communities, and therefore do not possess a full understanding of the chemistry and hazardous characteristics of those products to implement safe and effective emergency actions.

Moreover, the majority of the fire departments in the U.S. are composed of volunteers, many of which are located in rural areas. These departments general do not have adequate time or funding to conduct the necessary planning, preparedness, and dedicated training, nor do they have the resources, infrastructure, equipment, or personnel to safely and effectively respond to unit trains or cargo tanks carrying thousands of gallons of flammable liquids.

The Pipeline and Hazardous Materials Safety Administration (PHMSA) and the U.S. Fire Administration (USFA) / National Fire Academy (NFA) are working to provide access to best practices to include response guidelines and resources for first responders to safely respond to crude oil transportation incidents. The goal of the partnership is to expand awareness of critical information and issues related to crude oil transportation incidents, and improve preparedness, training, and response. These resources will be prepared by PHMSA and provided to USFA-NFA to share with the fire and emergency services community through USFA's extensive fire and emergency services communications network.

Proposed Approach

PHMSA will assemble a group of first responders and subject matter experts to collect information for emergency response to crude oil incidents (including lessons learned from prior incidents and available industry training resources (TRANSCAER, AAR, API, etc.)).

This information will be used to develop emergency response and incident management guidelines geared for awareness and operations level capabilities and resources. This will help support first responders to:

- gather valuable information prior to an incident
- analyze the information to determine the scope of the problem
- plan an initial response within the capabilities and competencies of available personnel, personal protective equipment, and control equipment
- implement the planned response to favorably change the outcomes consistent with the local emergency response plan and the organization's standard operating procedures
- evaluate the progress of the actions taken to ensure that the response objectives are being met safely, effectively, and efficiently

Information Sharing

Once the emergency response and incident management guidelines and resources are developed, the next phase will require dissemination of the information to the first responder community, especially in those states and communities located along major crude oil transportation routes. This effort would include using the following resources:

- USFA-NFA Coffee Break Training Series
- USFA Training Resources and Data Exchange (TRADE)
- PHMSA Web Site
- IAFF
- NVFC
- Fire Department Safety Officer's Association
- TRANSCAER
- AAR
- IAFC – Electronic Learning Community and Fusion Center
- ResponderSafety.Com
- DHS FirstResponder.Gov
- DHS Rural Domestic Preparedness Consortium - Responder Toolbox
- AAR
- Firehouse.Com
- Fire Engineering.Com
- Fire Rescue1.Com
- U.S. First Responders Association
- National First Responders Association
- Social Media Networks

Summary

Access to timely and accurate information and resources is the foundation for the safe management of any hazardous materials incident. Through the combined efforts of PHMSA, USFA-NFA, subject matter experts, and industry, important preparedness and response guidance will be made available to first responders to help them safely manage a crude oil transportation incident.

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