

Course Description:

First Responder Safety Training for Alternative Fuel Vehicles

Train-the-Trainer Course

Gain important knowledge and skills to help safely deal with alternative fuel vehicles at the scene of an accident

The scene of a vehicle accident is often chaotic, and first responders must work within the constraints of a critical time frame to ensure their safety and the safety of accident vehicle occupants. When an accident involves an alternative fuel vehicle (AFV), first responders must achieve balance between speed and caution because many potential hazards are present.

This session is targeted toward the first responder trainer and is not specifically designated as an end-user session.

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Why First Responder Safety Training for Alternative Fuel Vehicles?

In an effort to properly educate first responders about alternative fuel vehicle safety, the National Alternative Fuels Training Consortium (NAFTC) has developed a first responder safety training course for alternative fuel vehicles. This train-the-trainer course prepares first responder trainers with the skills and knowledge they need to instruct fellow first responders in how to confront a growing number of automotive accidents involving AFVs. The training is not designed to replace a department's standard operating procedures, but rather to enhance the responder's current skill set to assist in dealing with these new emerging technologies.

The course consists of four separate four-hour modules taught over a two-day, 16 hour period. The modules include information on:

First Responder Safety Training: Biofuels (biodiesel and ethanol) and Biofuel Vehicles:

This workshop covers two biofuels (biodiesel and ethanol) and will properly train and educate first responders on the chemical properties, manufacturing and production, biofuel vehicles, infrastructure, transport, stations, and handling, as well as first responder procedures related to biofuels (biodiesel and ethanol) and biofuel vehicles.

First Responder Safety Training: Gaseous Fuels (natural gas and propane) and Gaseous Fuel Vehicles:

This workshop covers two gaseous fuels (natural gas and propane) and introduces the different types of gaseous fueling stations and station safety systems. First responders will also learn how to recognize compressed natural gas, liquefied natural gas, liquefied petroleum gas, their properties, current gaseous fuel vehicles, and their vehicle components. This workshop reviews how first responders should approach and assess an incident, required personal protective equipment for responding to an incident, general fire fighting measures, and extrication.

First Responder Safety Training: Hydrogen and Hydrogen-Powered Vehicles:

This workshop introduces first responders to hydrogen properties, describes current hydrogen-powered vehicles, and explains the various hydrogen-powered vehicle components. This workshop introduces the different types of hydrogen fueling stations and describes fueling station safety systems. First responders will also learn they should approach and assess an incident, required personal protective equipment for responding to an incident, general fire fighting measures, and extrication.

First Responder Safety Training: Electric Drive Vehicles:

With the ever-increasing popularity of hybrid electric vehicles (HEVs), these vehicles are in every city and town in America. Although as safe as conventional vehicles, these high-voltage HEVs pose a new set of concerns for first responders, especially when approaching an accident scene. This workshop introduces first responders to HEVs, plug-in hybrid electric vehicles (PHEVs), battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs), and describes their history, explains their characteristics and configurations, and their safety features and extraction procedures.

The first responder trainer will leave this course prepared to present this class to interested end-user parties with the full support of the National Alternative Fuels Training Consortium.

Course Materials Provided to the Participant:

- Instructor Manual - including course agenda and planning notes
- Program certificate
- Training aids (PowerPoint presentation, Flash animations, tests, etc.)
- Classroom materials, including surveys, assessments, videos, participant information forms, etc.
- List of suggested hands-on training aids for shop tasks