

## Multimedia Learning System to Educate First Responders on Natural Gas Emergencies

To help gas companies better educate first-responding personnel about natural gas emergencies, gas industry researchers and training experts developed DVD-based learning modules with realistic scenarios covering a variety of issues. Designed to enhance public and worker safety, the training product also serves to improve emergency-response effectiveness and coordination.



### Project Description

Prompt, effective, and safe response to natural gas emergencies requires coordinated efforts between natural gas companies, police, and fire professionals. To help firefighters, police, and other first responders properly respond to gas-related incidents, gas industry experts and researchers developed a package of DVD-based training modules.

Results of this research project will help gas companies meet U.S. Department of Transportation (DOT) rules requiring gas companies to provide education programs for first responders.

### Deliverable

The deliverable for this project is a commercially available DVD-based training product for use by utilities and others involved in emergency response.

### Benefits



Although always a priority, in recent years the importance of emergency training has increased due to the heightened security concerns. However, faced with reduced budgets, staff limitations,

and increased competition for resources, many gas companies have found that updating educational materials and delivering needed training is becoming increasingly difficult.

In addition to compliance with DOT's 49 CFR Part 192.615 Emergency Plan requirements, the benefits to gas companies for providing this training include reduced loss of life, reduced property loss, and an enhanced public image.

### Technical Concept & Approach

After a search of currently available materials, researchers identified a highly rated product from AEGIS Insurance Services, Inc. – the largest insurer of gas companies in the United States – that had already been used by gas companies to train first responders. Impressed with the product, OTD agreed that a supplement to this DVD would complement the original DVD and provide a discussion of additional first-response issues.

With management provided by Gas Technology Institute (GTI), OTD investors funded the design, development, and delivery of the supplement, with additional involvement of AEGIS. The



same production company that produced the original AEGIS DVD was used for this project. The second volume includes a concise review of the fundamentals covered in the original DVD, plus a targeted treatment of additional topics, including LNG emergencies.

The training materials are organized into modules that are heavily video- and graphics-based. The new DVD provides realistic scenarios to allow first responders to practice formulating objectives and tactics within the framework of the fundamental concepts they have learned.

Researchers focused on a format that will allow for portable, modular presentation. The DVD may also provide a library of source files for the video that enables OTD participants to customize materials.



## Results

A script was developed and reviewed by project investors. Script changes were incorporated into successive versions and circulated among investors, AEGIS, and GTI for final consensus.

The DVD modules cover 1) gas leaking indoors; 2) gas leaking outdoors; 3) gas burning indoors; and 4) gas burning outdoors.

Specific topics include:

- Fires in Industrial Complexes
- Static Electricity Build-Up on Plastic Pipe

- Main Line Leaks and Fires
- Odorant Hazards Involving Natural Gas
- Liquefied Natural Gas

Scenarios are provided on each of the emergencies for reinforcement and discussion.

## Status

Efforts are being considered about creating additional scenarios for discussion based on the breadth of experience of the investors.

The training DVD was completed in 2007 and copies were distributed to OTD funders and other OTD members. Copies are available for sale on the OTD website: [www.otd-co.org](http://www.otd-co.org).

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