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|  | Pennsylvania State Fire Academy | |
| | 717.248.1115 In PA: 1.800.459.4096 | 1150 Riverside Drive Lewistown, PA 17044-1979 |
| | FAX 717.248.3580 | www.osfc.pa.us |
| Minimum Standard for Accreditation (MSA) | | |

Date: June 1, 2015
Last Revision: -----

Course Title: Responding to Utility Emergencies: Natural Gas

SFA Course Code: RTUENG

Course Length: 4 Hours

Lecture/Lab Breakdown: 4/0

Prerequisites: none

Referenced Text(s): “Responding to Natural Gas Emergencies” by Michael Callan (recommended)

Course Goal: This program is designed to increase general awareness of natural gas at the scene; provide responders with specific safety skills to recognize and identify hazards and develop proper attitudes when responding to natural gas emergencies.

Course Description: This course will address the hazards, risks, response and players (utility and public service) involved in responding to emergencies involving natural gas.

Description of Methodology: This program is delivered through lecture and illustration methods, PowerPoint materials, embedded visuals, case histories, and periodic exercises support the classroom lecture. Quizzes are provided for a course evaluation. There is also a web based learning component that can be used as a pre or post classroom support that is referenced in the participant (student) text.

Student Equipment & Supplies: Pen or pencil. The referenced text is recommended for students during training. Departments should contact their local service provider to seek assistance in obtaining student (text) manuals for training.

Equipment/Audiovisual/Facility/Supply Requirements: Classroom setup with table and chairs: AV equipment needed is a computer/monitor, speakers and projector to show PowerPoint presentation and embedded videos.

Special Notes & Conditions: Whenever possible contact your local natural gas company to attend to help with specific questions. If they cannot attend acquire a contact that you can contact with any questions that arose during the delivery.

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Course Outline

| <u>Time</u> | <u>Topic</u> | <u>Notes</u> |
|-------------|--|--------------|
| :30 | Introduction and Overview | |
| :60 | Understanding Natural Gas | |
| :60 | Transmission and Distribution of Natural Gas | |
| :60 | Responding to Natural Gas Emergencies | |
| :30 | Exercises, case histories or evaluation | |

Competency Evaluation Mechanism:

The program provides several methods of competency checks for the instructor. There are unit quizzes based on objectives to allow the instructor to evaluate the student's mastery of the objectives. In addition to quizzes there are three exercises to assess awareness and recognition of natural gas hazards, equipment, and response. The program is also supported by actual case histories to be discussed in groups.

Learning Outcomes (Behavioral Objectives):

1. Identify at least three key players (public and/or private) involved in a utility natural gas emergency.
2. Identify at least two federal, state or private agencies or organizations that regulate or impact community emergency response to a natural gas emergency.
3. Describe the limitations of a community emergency first responder in an incident involving natural gas.
4. Identify two major chemical components of natural gas.
5. Explain the difference between transmission pipelines and distribution pipelines.
6. Describe the benefits and limitations of odorant in natural gas.
7. Describe the four operations or components that bring natural gas from the field to the customer
8. Identify at least four pieces of equipment found in natural gas transmission or distribution system.
9. Describe the difference or operation between a main valve and a customer valve.
10. Describe the shutoff method for closing a residential or small commercial service.
11. Describe the limitations of using fire-service and emergency-services equipment around natural gas.

Questions/Comments: Please contact the Assistant State Fire Academy Administrator