

Massena Volunteer Fire Department

Drill – July 22, 2017

Drill No: 2017-MSS-018

Session(s): 1

Topic(s): Combustible Gas Indicator
Thermal Imaging Camera
Truck Electrical

Instructor(s):

Officer(s):

Time Required: 2 Hours

Materials:

- Gas Meter
- Career Staff (1)
- Engine 31
- Stopwatch or Timer
- Smoke Machine
- Extension cord
- Extra bottle of smoke
- Thermal Image Cameras (2)
- Tarps (1) (For bottle change area)
- Bottled Water (For Rehab)

References:

- The Firefighter's Handbook - Essentials of Firefighting & Emergency Response – New York Edition 2nd Edition Pages 465-477 & 567-573
- Firefighter Respiratory Protection - 29 CFR parts 1910.134 and 1910.156
- Standard on the Selection, Care, and Maintenance of Open-Circuit Breathing Apparatus – NFPA 1852
- Drager x-am 2500 Combustible Gas Indicator Guidance located at www.massenafire.com/gas-meters
- Thermal Imaging User Manual – Massena Fire Document Library

PREPARATION:

Drill Set-up:

INTERIOR

1. 220V cord reel and junction box will be run to the trailer plug for power
2. Smoke machine will be set-up on the inside kitchen counter (Only working outlet)
3. Ensure machine is full of liquid smoke mixture
4. Need to start machine running ~20 minutes prior to use to allow for it to heat and smoke
5. Trailer will be set-up and configured by company officer
6. MVFD member will play role of victim and will be placed appropriately by company officer
7. Search teams will make entry and conduct primary search using the Thermal Imaging Camera
8. This evolution may be performed in full PPE with SCBA or without to facilitate communication
9. Prior to drill insert disposable hand warmer packets inside dead electrical boxes and other heat sources where appropriate

EXTERIOR/INTERIOR

1. Exterior members will run electrical supply to trailer
2. While one officer runs members through search drills a second officer will instruct exterior members on PPE and use of truck electrical for scene lighting and horizontal ventilation
3. Once search evolutions are complete exterior members will proceed to set-up and demonstrate the use of:
 - a. Smoke ejectors – Use to completely clear the trailer
 - b. PPV Fans – Use to completely clear the trailer
 - c. Scene Lighting – Use cord reel(s) to and available scene lighting to light up the inside of the trailer
4. After exterior members have completed these evolutions and all interior members have completed rehab and hydration interior members will repeat steps 1 through 3 to demonstrate proficiency

Training Objectives (TO):

TO-1: Pre-use inspection of SCBA & Mask (INTERIOR)

Students shall demonstrate and verbalize the following SCBA pre-use inspection steps from memory when prompted by the instructor:

1. Ensures the cylinder is full
2. Verifies integrated PASS system activates when cylinder is turned on
3. Verifies that the cylinder gauge and regulator gauge are within 100 psi of each other
4. Verifies purge valve is functioning properly
5. Verifies all hoses and connections are free of damage and free of leaks

TO-2: Donning SCBA (INTERIOR)

Students shall demonstrate proper donning techniques using ONE of the following methods within 60 seconds:

1. Seat mounted
2. Over the head
3. Coat method

TO-3: Donning the SCBA face piece (INTERIOR)

Students will demonstrate the proper donning procedures for an SCBA face piece when prompted by the instructor (To include the following):

1. Loosens all straps on the face piece if not already done
2. Places chin in chin cup
3. Pulls head harness uniformly over head
4. Pulls all strap evenly and to the rear of the head
5. Checks for proper seal
 - a. Holds palm of hand over regulator hole –or–
 - b. Attaches regulator to face piece and starts air flow

TO-4: Operations involving Search (INTERIOR)

Students shall demonstrate the following:

1. Will demonstrate proper use of Thermal Imaging Camera to include start up, shut down & usage in primary/secondary search
2. Effective communications between partners
3. Maintains verbal or physical contact with partner the whole time
4. Identifies exits such as doors and windows as they are found
5. Successfully locates and removes victim

TO-5: Mayday and RIT procedures (INTERIOR)

1. Will activate PASS alarm manually when prompted by the instructor
2. Will deactivate PASS alarm when prompted by instructor
3. Reacts appropriate by calling MAYDAY in any of the following situations
 - a. Becomes disoriented
 - b. Becomes trapped
 - c. Becomes lost
 - d. Falls or has something fall on them
4. Will respond appropriately when a low air alarm is sounded by removing their team from the simulated IDLH (Immediate Danger to Life & Health) environment
5. Demonstrate use of hose couplings to identify exit point
 - a. Lifts hose and drops to sound out closest coupling
 - b. Moves towards coupling
 - c. Using coupling lugs accurately indicates direction of exit

- i. “Little to Big Back to the Rig” reminds firefighter that the female end of hose has small lugs and the male has longer lugs
 - ii. “Smooth sailing ahead” reminds firefighters that the female coupling is two parts....a smooth section followed by the small lugs whereas the male coupling is one piece and the lug runs the whole length.
6. Demonstrates at least one of two methods for RIT pack use
 - a. Face mask replacement method
 - b. RIT pack connection method

TO-6: SCBA bottle changes (EXTERIOR & INTERIOR)

Students will demonstrate proficiency in changing SCBA bottles (To include the following):

1. Firefighters will demonstrate the proper procedures for changing out a bottle to include:
 - a. Outward visual inspection of all parts looking for signs of damage or unusual wear.
 - b. Pays special attention to the retaining clip on the bracket and the O-Ring on the connection to the bottle. (Must verbalize)
 - c. Extends all straps on the harness
2. Outgoing firefighters will report to rehab WITHOUT exception

TO-7: Truck Electrical (EXTERIOR & INTERIOR)

Students shall demonstrate the following skills:

1. Shall place junction box in an appropriate location for its intended use and properly connect it to the truck electrical system
2. Shall demonstrate use of household plug to power either a light or ventilation fan

TO-8: Scene Lighting

Students shall demonstrate the following:

1. When instructed to do so by an officer will select appropriate scene lighting, will properly place it and will connect it to the trucks electrical system and power it up.
2. Shall demonstrate set-up of Honda portable generators with attached scene light and will verbally describe safety precautions for its use.
3. Will verbally list MVFD apparatus with tower lighting available

TO-9: Horizontal Ventilation

Students shall demonstrate the following:

1. When instructed to do so shall use negative pressure ventilation to clear smoke from the training trailer
 - a. Sets up fan in an appropriate window or doorway
 - b. Connects electrical to fan to power it
 - c. Performs tasks in a safe manner
2. When instructed to do so shall utilize positive pressure ventilation to clear smoke from the training trailer
 - a. Sets up the fan an adequate distance from the door
 - b. Ensures all doors and windows are closed
 - c. After turning on the PPV fan chooses an appropriate door or window to open to allow the pressurized smoke to be ejected
 - i. Opposite end of trailer
 - ii. Single exit point for smoke
 - iii. Should be the same size or smaller than the opening where the fan is located

TO-10: Combustible Gas Meter

Students shall demonstrate the following:

1. Shall verbally or physically demonstrate powering on the unit
2. Shall verbally acknowledge the display icon (!) indicating the unit has completed its self-test
3. Shall demonstrate the fresh air calibration
4. Shall verbally or physically demonstrate resetting the device following an alarm (Use truck exhaust)
5. Shall verbally or physically demonstrate powering the unit off

