

Foam Operations

Activity: Related to Topic 2-1: Extinguishing an Ignitable Liquid Fire with Foam

Format: Small group (maximum 10 students)

Time Frame: Open (based on a total of 8 hours for skills practice and completion)

Description

This exercise measures a fire fighter's ability to operate as a member of a team to extinguish an ignitable liquid fire by identifying escape routes and safety zones prior to advancing, selecting the correct type of foam concentrate for the given fuel and conditions, applying a properly proportioned foam stream to the surface of the fuel to create and maintain a foam blanket, extinguishing the fire, preventing reignition, maintaining team protection, and facing hazards until the team successfully retreats to a safety zone.

Materials

- Adequate hose lines (1½" width or larger)
- Adequate foam capable nozzles
- Eductor (must match nozzle)
- B:C fire extinguisher
- Minimum of two (2) water sources
- Adequate water supply
- Adequate Class B foam or foam substitute
- Flammable liquid pan or equivalent
- Adequate propane supply or flammable liquids
- Full PPE and SCBA
- Communication equipment

Instructions

Working in groups, students will demonstrate the following foam operation skills:

1. Prepare foam concentrate supply for use
2. Assemble foam stream components
3. Approach the spill as part of a coordinated team
4. Demonstrate foam application techniques
 - Rain down
 - Roll in/on
 - Bank back
5. Retreat from spills as part of a coordinated team

Gas Cylinder Fires

Activity: Related to Topic 3-1: Controlling a Flammable Gas Fire

Format: Small group (maximum 10 students)

Time Frame: Open (based on a total of 8 hours for skills practice and completion)

Description

This exercise measures a fire fighter's ability to operate as a member of a team to control a flammable gas cylinder fire by maintaining crew integrity, identifying contents, identifying escape routes and safety zones prior to advancing, closing any open valves, and extinguishing flames only when leaking gas is eliminated, the cylinder is cooled, cylinder integrity is evaluated, hazardous conditions are recognized and acted upon, and the cylinder is faced during approach and retreat.

Materials

- Adequate hose lines (1½" width or larger)
- Adequate nozzles
- B:C fire extinguisher
- Minimum of two (2) water sources
- Adequate water supply
- Gas cylinder prop or equivalent
- Adequate propane supply
- Full PPE and SCBA
- Communication equipment

Instructions

Working in groups, students will demonstrate the following skills:

1. Advance hoseline(s) toward gas cylinder(s)
2. Apply water application techniques
3. Assess cylinder integrity and changing cylinder conditions
4. Operate control valve(s)
5. Respond to changing incident conditions
6. Retreat hoseline(s)

Gas Meter Fires

Activity: Related to Topic 3-1: Controlling a Flammable Gas Fire

Format: Small group (maximum 10 students)

Time Frame: Open (based on a total of 8 hours for skills practice and completion)

Description

This exercise measures a fire fighter's ability to operate as a member of a team to control a flammable gas meter fire by maintaining crew integrity, identifying contents, identifying escape routes and safety zones prior to advancing, closing any open valves, and extinguishing flames only when leaking gas is eliminated, meter integrity is evaluated, hazardous conditions are recognized and acted upon, and the meter is faced during approach and retreat.

Materials

- Adequate hose lines (1½" width or larger)
- Adequate nozzles
- B:C fire extinguisher
- Minimum of two (2) water sources
- Adequate water supply
- Meter prop or equivalent
- Adequate propane supply
- Full PPE and SCBA
- Communication equipment

Instructions

Working in groups, students will demonstrate the following skills:

1. Advance hoseline(s) toward meter
2. Apply water application techniques
3. Assess meter integrity and changing meter conditions
4. Operate control valve(s)
5. Respond to changing incident conditions
6. Retreat hoseline(s)

Gas Fires Involving Valves, Flanges, and Piping

Activity: Related to Topic 3-1: Controlling a Flammable Gas Fire

Format: Small group (maximum 10 students)

Time Frame: Open (based on a total of 8 hours for skills practice and completion)

Description

This exercise measures a fire fighter's ability to operate as a member of a team to control a flammable gas fires involving valves, flanges, and piping by maintaining crew integrity; identifying contents; identifying escape routes and safety zones prior to advancing; closing any open valves; and extinguishing flames only when leaking gas is eliminated, valves, flanges, and piping integrity is evaluated, hazardous conditions are recognized and acted upon; and the valves, flanges, and piping is faced during approach and retreat.

Materials

- Adequate hose lines (1½" width or larger)
- Adequate nozzles
- B:C fire extinguisher
- Minimum of two (2) water sources
- Adequate water supply
- Valve, flange, and piping prop or equivalent
- Adequate propane supply
- Full PPE and SCBA
- Communication equipment

Instructions

Working in groups, students will demonstrate the following access and egress skills:

1. Advance hoseline(s) toward valve, flange, and piping prop
2. Apply water application techniques
3. Assess valve, flange, and piping integrity and changing conditions
4. Operate control valve(s)
5. Respond to changing incident conditions
6. Retreat hoseline(s)