

## Produce an Effective Hand Line and Master Stream

### Activity 3-1

**Format:** Individual

**Time Frame:** Open (based on a total of 21 hours for skills practice and completion)

### Description

This activity provides students with an opportunity to practice producing hand lines and master streams from four identified water sources. Hand line practice should include using both single hose line and variable hose line (multiple lines, mixed GPM, mixed hose lengths) configurations.

### Standard of Completion

Produce effective hand and master streams, given the sources specified in the following list, so that the pump is engaged, all pressure control and *apparatus* safety devices are set, the rated flow of the nozzle is achieved and maintained, and the apparatus is monitored for potential problems:

- 1) Internal tank
- 2) Pressurized source
- 3) Static source
- 4) Transfer from internal tank to external source  
(NFPA 1002 (2017) / Paragraph 5.2.4)

### Materials

- Pumping apparatus
- Pressurized water source (hydrant or supply line from another pumping apparatus)
- Static water source (drafting pit, portable tank, or natural water source)
- Hard suction hose
- Tools and equipment
- Radio equipment
- PPE (including gloves and helmet)

### Instructor Notes

- Demonstrate the skill for the students before they practice and complete each skill.
- The goal for hand lines is to have students flow hand lines from various water sources (tank water, hydrant, etc.)
- The goal for master streams is to put a master stream in service from a hydrant.

## Pump a Supply Line for a Relay Operation

### Activity 3-2

**Format:** Individual

**Time Frame:** Open (based on a total of 21 hours for skills practice and completion)

### Description

This activity provides students with an opportunity to practice pumping water from one apparatus to the next using a 2½" or larger supply line.

### Standard of Completion

Pump a supply line of 2½ in. (65 mm) or larger, given a relay pumping evolution the length and size of the line and the desired flow and intake pressure, so that the correct pressure and flow are provided to the next *pumping apparatus* in the relay. (NFPA 1002 (2017) / Paragraph 5.2.5)

### Materials

- Two (2) pumping apparatus
- Tools and equipment
- Radio equipment
- PPE (including gloves and helmet)

### Instructor Notes

- Demonstrate the skill for the students before they practice and complete each skill.

## Produce a Foam Fire Stream

### Activity 3-3

**Format:** Individual

**Time Frame:** Open (based on a total of 21 hours for skills practice and completion)

### Description

This activity provides students with an opportunity to practice properly proportion the foam and producing a foam fire stream.

### Standard of Completion

Produce a foam fire stream, given foam-producing equipment *and manufacturer's specifications and requirements*, so that proportioned foam is provided. (NFPA 1002 (2017) / Paragraph 5.2.6)

### Materials

- Pumping apparatus
- Foam portioning system
- Foam or foam substitute
- Tools and equipment
- Radio equipment
- PPE (including gloves and helmet)

### Instructor Notes

- Demonstrate the skill for the students before they practice and complete each skill.

## Supply Water to Fire Sprinkler and Standpipe Systems

### Activity 3-4

**Format:** Individual

**Time Frame:** Open (based on a total of 21 hours for skills practice and completion)

### Description

This activity provides students with an opportunity to practice supplying water to fire sprinkler and standpipe systems at the correct volume and pressure.

### Standard of Completion

Supply water to fire sprinkler and standpipe systems, given specific system information, a pumping apparatus, and sprinkler and standpipe systems, so that the water is supplied at the correct volume and pressure. (NFPA 1002 (2017) / Paragraph 5.2.7)

### Materials

- Pumping apparatus
- Sprinkler system or mockup appliance
- Standpipe system or mockup appliance
- Tools and equipment
- Radio equipment
- PPE (including gloves and helmet)

### Instructor Notes

- Demonstrate the skill for the students before they practice and complete each skill.