

## SECTION 21 PORTABLE EXTINGUISHERS

### *Live Fire Prerequisite*

21-I.01 Trainee shall identify the classification of types of fires as they relate to the use of portable extinguishers as follows:

**NFPA 1001 5.3.16.A**

- A. Identify the five (5) classes of fire:
  - 1. Class A
  - 2. Class B
  - 3. Class C
  - 4. Class D
  - 5. Class K
- B. Identify examples of fuels for each class of fire:
  - 1. Class A
  - 2. Class B
  - 3. Class C
  - 4. Class D
  - 5. Class K

21-I.02 Trainee, given a group of differing extinguishers, shall identify the appropriate extinguishers for each class of fire as follows:

**NFPA 1001 5.3.16.A**

- A. Class A fire:
  - 1. pump tank water extinguisher
  - 2. stored-pressure water
  - 3. foam
  - 4. dry chemical (multi-purpose agent)
- B. Class B fire:
  - 1. dry chemical (ordinary base)
  - 2. dry chemical (multi-purpose)
  - 3. CO<sub>2</sub> (carbon dioxide)
  - 4. foam
  - 5. Halon 1211
- C. Class C fire:
  - 1. dry chemical (ordinary base)
  - 2. dry chemical (multi-purpose)
  - 3. CO<sub>2</sub> (carbon dioxide)
  - 4. Halon 1211
- D. Class D fire:
  - 1. powder extinguishing agents for metal fires.
- E. Class K
  - 1. wet chemical systems

21-I.03 Trainee shall identify the portable fire extinguisher rating system (Underwriters Laboratories, Inc.):

**NFPA 1001 5.3.16.A**

- A. the basic symbols for the classes of fires
- B. the picture-symbol labeling system for the selection of fire extinguishers
- C. the numerical rating system for Class A & B fire extinguishers
- D. the test procedure for rating Class C portable extinguishers
- E. the test procedure for rating Class D portable extinguishers
- F. portable extinguishers suitable for more than one class of fire
- G. the test procedure for rating Class K portable extinguishers

21-I.04 Trainee shall demonstrate the use of portable extinguishers for each class of fire as follows:

**NFPA 1001 5.3.16.B**

(FD can document with Portable Fire Extinguishers #1 skill sheet found in appendix and retain on file)

- A. extinguish a class A fire using a pump tank water extinguisher
- B. extinguish a class B fire using a dry chemical extinguisher
- C. extinguish a class B fire using a CO<sub>2</sub> extinguisher

21-I.05 Trainee shall identify and explain the extinguishing effect needed for each class of fire as follows:

**NFPA 1001 5.3.16.B**

- A. Class A fire:
  - 1. cooling
  - 2. smothering
- B. Class B fire:
  - 1. smothering
  - 2. blanketing
- C. Class C fire:
  - 1. smothering & non-conductive
- D. Class D fire:
  - 1. must be non-reactive with burning material
- E. Class K fire:
  - 1. oxygen depletion & vapor suppression

21-I.06 Trainee shall identify and explain fire extinguisher characteristics and operations of:

**NFPA 1001 5.3.16**

- A. Pump tank water extinguishers, stored-pressure water extinguishers, aqueous film forming foam extinguishers, Halon 1211 extinguishers, CO<sub>2</sub> extinguishers, dry chemical extinguishers (ordinary base agent), and dry chemical extinguishers (multi-purpose base) as to their:
  - 1. size
  - 2. applicable to what class of fires
  - 3. stream reach under normal conditions
  - 4. discharge time under normal conditions
  - 5. protection from freezing
  - 6. methods of operation

*Firefighter I - There are no objectives required for this certification level.*

*Firefighter II - There are no objectives required for this certification level.*