



FIRE INSTRUCTOR I Student Presentation Lesson Plan

13-Portable Extinguisher Classifications

Outline of Instruction

Objective

Upon successful completion of this lesson, the student shall be able to:

- Explain portable fire extinguisher classifications. [NFPA® 1001, 5.3.16]

Instructor Directions

1. Set up non-projectable training aids
 - a. Chart pad to include:
 - i. Title Page
 - ii. Acronym
 - iii. Summary
 - iv. 1 Application scenario
 - v. 2 Evaluation questions
2. Set up projectable training aids (LCD projector & computer)
3. Present lecture utilizing this outline of instruction, non-projectable and projectable audio visual aids.
 - a. Overall time 18 min. (set up, present topic, and take down of audio visuals)
 - b. Presentation time 8-12 min. (presentation time is part of the 18 min)
4. Breakdown of projectable training aids.

Reference Stowell, F.(2013). Essentials of Fire Fighting and Fire Department Operations (6th ed.). Upper Saddle River, N.J.: Brady Pub.; ISBN# 978-013-314080-4

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Preparation

Introduction

- Instructor introduction
- Objectives
- Preparation Step

Presentation

Classifications of Portable Fire Extinguishers

Classified by type of fire designed to effectively extinguish

Five classes match classes of fire

Class A

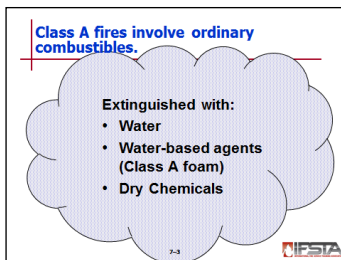
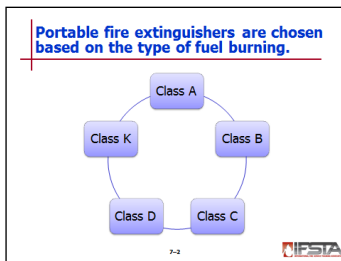
Class B

Class C

Class D

Class K

Choose which to use based on the fuel that is burning



Class A

Fires involve ordinary combustibles

Textiles

Paper

Plastics

Rubber

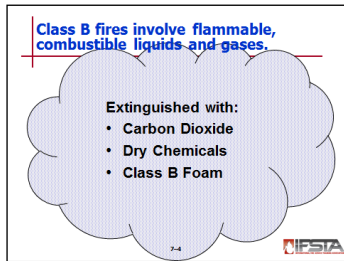
Wood

Extinguished with

Water

Water-based agents (Class A foam)

Dry chemicals



Class B

Fires involve flammable, combustible liquids and gases

Alcohol

Gasoline

Lubricating oils

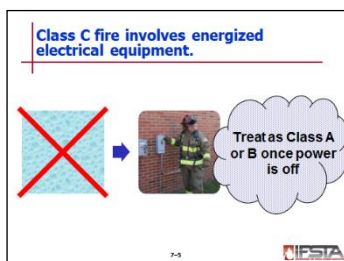
Liquefied petroleum gas (LPG)

Extinguished with

Carbon dioxide (CO₂)

Dry chemical

Class B foam



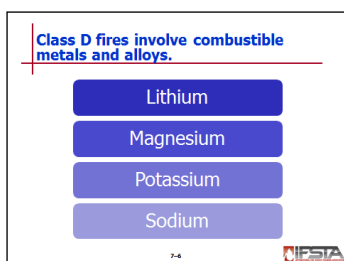
Class C

Fires involve energized electrical equipment

Cannot use water and water-based agents until current eliminated – These conduct electrical current

These extinguishing agents will not conduct electricity

Once power supply is turned off or disconnected – Fire can be treated as Class A or B



Class D

Fires involve combustible metals, alloys – Can be identified by bright white emissions during combustion process

Lithium

Magnesium

Commonly used in wheels, transmission components in autos

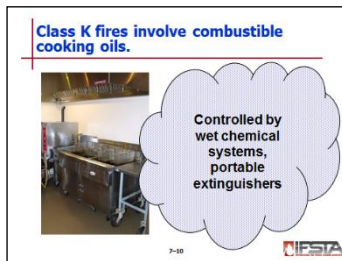
May be in metal box springs in beds

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Potassium

Sodium

Class K



Fires involve combustible cooking oils

Vegetable or animal fats

Oils that burn at extremely high temperatures

Found in commercial, institutional kitchens; industrial cooking facilities; private homes

Controlled by use of wet chemical systems, portable fire extinguishers

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Chart Pad:

Title Page

- Name, Department, Title of Presentation

Acronym

- **L.I.P.** (Life Safety, Incident Stabilization, Property Conservation) instructor relates these priorities to the lecture

Summary (2-4 key points)

- Instructor reviews 2-4 key points of the lesson plan to clarify uncertainties, prevent misconceptions, increase learning and improve retention

Application (1 scenario)

- The student is given a scenario where the student will apply all of the knowledge that was given in the lecture. *This is not a question*, it is merely the explanation of the scenario.

Evaluation (2 questions)

- Instructor should ask students 2 direct questions that were presented during the lesson. *Answer to the questions must be give after asking the question.*