

Instructor Guide

Topic: Dumpster Firefighting

Level of Instruction:

Time Required: Two hours

Materials: Appropriate visuals, water supply, fully equipped fire engine, PPE and SCBA for each participant, dumpster, Class A fuel if there is to be a fire in the dumpster, one instructor for each five students, and a safety officer

References: Essentials of Firefighting, 4th ed., IFSTA

Preparation:: If fire is to be set in the dumpster, make sure there are no hazardous contents before ignition

Motivation: While fires in dumpsters may not present a loss of property in terms of value, we should avoid being complacent. The content of a dumpster is unknown. There is a potential for hazardous materials being involved. It is important that we use proper attack techniques, adequate size attack lines, and PPE and SCBA.

Objective (SPO): Given hazards and extinguishment techniques, the student will be able to demonstrate the process to safely extinguish a fire in a dumpster.

Overview

Dumpster Firefighting

- * Types and Construction
- * Safety Hazards
- * Extinguishment
- * Fire Attack Practical

Dumpster Firefighting

- SPO Given hazards and extinguishment techniques, the student will be able to demonstrate the process to safely extinguish a fire in a dumpster.
- EO 1-1 Identify and describe the various types of dumpsters and their construction characteristics.
- EO 1-2 Identify and describe safety hazards posed by dumpster fires.
- EO 1-3 Identify and describe the proper extinguishment techniques for dumpster fires.
- EO 1-4 Demonstrate the proper extinguishment techniques for a dumpster fire.

I. TYPES AND CONSTRUCTION (1-1)

A. Types – discuss the potential hazards with each type of container

1. Open-top, roll-off – generally at construction sites; may also be on trucks being hauled to disposal facilities for emptying
2. Compactor/closed, roll-off – generally at commercial sites; may also be vehicles in a non-roll mode; could be attached to a building
3. Flip-top – generally at smaller businesses or multi-family occupancies

B. Construction Features – discuss the impact of the various construction features on fire attack

1. Heavy gauge steel for all types – difficult to make an opening
2. Sliding side doors on flip-top type
3. Drains in bottom on roll-off and flip-top type
4. Rear hinges and swing doors on flip-top type
5. Square to oblong shape
6. Hydraulic compactor cylinder, trash blade on truck mounted and roll-off compactors
7. Fire hose portal on top of compactor and roll-off types
8. Flip-top metal or plastic

C. Fire Behavior Characteristics

1. Unknown quantity of various combustibles inside – fire behavior and reaction unpredictable
2. Closed container will smolder from pockets of fire– may keep fire small due to limited oxygen supply
3. Large open-top will radiate heat
4. Plastic lids on flip-top type will melt from fire exposure
5. Heat may affect springs on hinged tops and sliding side doors

II. SAFETY HAZARDS (1-2)

A. Location of Container

1. Near exposures – could be attached to a building or even inside it
2. Narrow, confined area – may be located in an alley

B. Contents of Containers

1. Unknown contents – cannot rely on container markings; contents may be in plastic bags
2. Hazardous materials possible – may not be marked or obvious; any closed container can explode when heated regardless of whether the contents are combustible
3. Warning labels on container – may contain illegally disposed of waste
4. Explosives – may include blasting caps and ammunition
5. Fuels/petroleum products such as used motor oil and filters

III. Extinguishment Techniques (1-3)

A. Attack Line Advancement

1. Wear full personal protective clothing and SCBA
2. Use a minimum of 1-1/2" attack line
3. Approach from corners of container to avoid being struck by objects that may be blown out of side openings
4. Position stream between exposures and container
5. Protect exposures
6. Utilize pike poles (one on each side) to open and close lid to control fire as required – should not be looking at inside from above
7. Use pike pole or forcible entry bar to pull open side hatches (pushing will put personnel in the line of fire)
8. Rear hinged doors can be opened for inspection and overhaul as necessary

B. Overhaul

1. Dumpsters require special considerations – overhaul should be accomplished from outside the dumpster; personnel should not enter the dumpster as the surface is unstable
2. Contents should be unloaded at a landfill – water applied to the fire will add weight to the dumpster
3. In certain cases remove to vacant area and unload to conduct overhaul – may require fire department standby
4. Notify carrier or owner to assist in clean-up activities
5. If hazardous materials are suspected, authorities may need to be notified

IV. FIRE ATTACK PRACTICAL (1-4)

NOTE: The practical activity can be conducted with or without fire but should involve the use of a dumpster that can be used for this purpose. The content of the container must be known before the practical activity starts if the contents are to be

ignited.

A. Safety Precautions

1. All personnel should be in full protective clothing and using SCBA
2. It may be necessary to review hose handling techniques prior to the start of any evolutions
3. There should be a continuous supply of water
4. Only Class A non-contaminated fuels should be used
5. At least one 1-1/2" or larger attack line should be used
6. A safety officer must be appointed to oversee the training involving fire

B. Attack Methodologies

1. Place attack line(s) in service with equal students on each and one instructor on each
2. Rotate personnel as appropriate
3. Prepare to advance, cool, and extinguish
4. Charge and advance attack line(s)
5. Narrow streams to cool exterior of dumpsters on approach
6. As students approach hatches, maintain a position at the corners to the hatch using wall of dumpster as protective cover
7. Widen streams when closer to dumpster to increase heat absorption
8. Use pike pole or pry bar to open side doors
9. Be cautious and alert for post extinguishment/flare-up
10. Retreat from dumpster facing fire area
11. Use pike pole to open dumpster top or lid to vent while approaching on attack - vent person uses side wall of dumpster as protection and stays clear of hatch openings
12. Overhaul dumpster if appropriate

Review:

Dumpster Firefighting

- * Types and Construction
- * Safety Hazards
- * Extinguishment
- * Fire Attack Practical

Remotivation: While a dumpster fire may be considered a controlled burn, the contents in those containers is unknown and, in most costs, hazardous. The value of the contents of a dumpster is not worth an injury.

Assignment: