



Office of Environmental Health & Safety

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Fire Extinguishers

GUIDELINE

To establish standards for the selection, installation, distribution, testing, inspection, and employee safety training in the use of, and record-keeping requirements for portable fire extinguishers.

This guideline contains detailed requirements for the selection, installation, distribution, testing and inspection, employee safety training in the use of, and record-keeping requirements for portable fire extinguishers. The current edition of the National Fire Protection Association and Life Safety Codes may be referenced. Where contents of the guideline are more stringent than NFPA No. 10, the guideline shall prevail. “Fire extinguisher(s)” shall mean portable fire extinguishers.

This guideline applies to all portable fire extinguishers maintained at Morehead State University.

PROCEDURE

Choice of Fire Extinguishers

The type of fire extinguisher to be provided at any location shall be based on the class of fire hazard and the condition to which employees or others may be exposed.

- Class A Fires – include the ordinary combustibles, i.e., wood, paper, trash having glowing embers, where a large amount of water is essential extinguishing a fire.

Markers indicating “A” (in a green triangle) and containing the words “ordinary combustibles” must be located on the extinguishers. (Markers indicating “A”, “B”, “C”

and containing the appropriate words as to type of fire must be located on multipurpose dry chemical extinguishers.

The following types of extinguishers are approved for Class A Fires:

- 1) Multipurpose dry chemical fire extinguishers. Only the manufacturer's recommended dry chemical is to be used. Other types of dry chemical, even of the same manufacturer, are prohibited.
- 2) Stored water pressure extinguishers, 2 ½ gallon capacity with stainless steel or brass shells. Such extinguishers must be treated with the manufacturer's recommended antifreeze solution when subject to temperatures less than 40 degrees F.

Class B Fires – include flammable and combustible liquids, grease, natural gas, propane, etc., where a “blanketing” or smothering” effect is essential in extinguishing the fire.

Carbon dioxide extinguishers may be used on Class B fires in an emergency. However, this extinguisher is not as effective in controlling a Class B fire.

Water can be effectively used on large Class B fires with burning embers. However, water must not be used as the primary extinguishing agent.

Markers indicating “B” (in a red square) and containing the words “flammable liquids”; or markers indicating “B” “C” with a red square and blue circle containing the words “flammable liquids – electrical equipment” or similar identification are also acceptable and must be located on the extinguisher.

Hand Portable Extinguishers

All hand portable dry chemical cartridge operated extinguishers must be equipped with a ring pin.

Class C Fires – include burning electrical equipment where the use of a non-conducting extinguishing agent is essential to put out the fires. Of primary importance is the prevention of electrical shock to the operator by current flowing from the burning electrical equipment through the extinguishing agent to the operator.

Markers indicating “C” (in a blue circle containing the words “electrical equipment”); or markers indicating “B” “C” with a red square and blue circle containing the words “flammable liquids – electrical equipment” or similar identification are also acceptable and must be located on the extinguisher.

CAUTION:

- Water extinguishers approved for Class A Fires and carbon dioxide extinguishers with metal horns must not be used on this class fire as they present an electrical shock hazard.
- Carbon dioxide extinguishers must not be selected for use in poorly ventilated rooms or areas because they reduce the supply of oxygen.
- Only dry chemical extinguishers should be used under such conditions.
- Dry chemical extinguishers will work on Class C Fires. However, the chemical often leaves a coat on electrical equipment, which is undesirable and may ruin the equipment.

INSTALLATION

All extinguishers must be located to be conspicuous and readily accessible.

- In areas where visual obstructions cannot be completely avoided, conspicuous signs should indicate the location of the extinguisher.
- Any extinguisher which is not painted red must be mounted on a suitable red background.
- Extinguishers mounted in cabinets or wall recesses or set on shelves must be placed so that extinguisher operating instructions face outward.
- Extinguishers selected to protect the contents of closed rooms, closets, etc., must be installed outside the room or closet for easy access in the event of an emergency, rather than inside the room or closet where the availability or use may be restricted.
- Foam extinguishers must not be treated with an antifreeze solution and are not to be subjected to temperatures less than 40 degrees F.
- Cartridge-operated or stored-pressure type water extinguishers must be treated with the manufacturer’s recommended antifreeze solution when subject to temperatures less than 40 degrees.
- Carbon dioxide and dry chemical extinguishers may be installed in temperatures less than 40 degrees F. Protection from freezing is not required.
- Extinguishers are not to be installed where the ambient temperature exceeds 120 degrees F.

- Extinguishers shall be kept full at all times and recharged immediately after use, even though only partly used.

LOCATION

- Extinguishers shall be located as follows:
 - Hand Portable Extinguishers
 - Light Hazard – where the amount of combustibles or flammable liquids present is such that only fires of small sizes may be expected. These may include offices, meeting rooms, etc. Units shall be located so that the maximum travel distance to the nearest extinguisher is not greater than 75 feet to reach the nearest unit.
 - All other hazards – units shall be located so that the maximum travel to the nearest extinguisher is no greater than 50 feet.

TESTING AND INSPECTION REQUIREMENTS

- Inspection and Maintenance
 - Each extinguisher must be visually inspected on a monthly basis and receive proper maintenance annually, in accordance with manufacturer's requirements.
- Hydrostatic Testing
 - Extinguishers shall be hydrostatically tested in accordance with the manufacturer's requirements.

RECORD KEEPING

- The date (month and year) of each monthly visual inspection and annual maintenance check, and the initials of the person performing the work must be recorded on MSU's tag which is to be attached to the extinguisher.
- The Permanent Fire Extinguisher Maintenance Record must be maintained for all extinguishers assigned to each work location.
- The date (month and year) of the hydrostatic test of each fire extinguisher must be recorded on the Fire Extinguisher Record Tag and the Permanent Fire Extinguisher Maintenance Record.
- An outside company which performs hydrostatic testing must affix its hydrostatic test decal.

TRAINING

Fire extinguisher training will be conducted by the Office of Environmental Health & Safety. Other training may be offered and approved upon review by the Office of EHS.