

#### **FIRE EXTINGUISHER**

### Introduction

Baton Rouge Community College is committed to preventing workplace injuries and damage to property by implementing Fire Prevention and control measures in place for all academic appointees, staff, students, and visitors to limit or minimize loss in the event of fire.

### **Purpose**

To provide control measures that limits or minimizes losses in the event of fire at BRCC locations. This policy is applicable to all BRCC locations.

#### POLICY IMPLEMENTATION PROCEDURES

All fire extinguishers shall be repaired, inspected, maintained and tested in accordance with this policy and procedure. The following safety guidelines are provided to maximize health and safety.

## I. Authority and Responsibility

Departments responsible for coordinating the fire extinguisher program are:

## A. Environmental Health & Safety

- 1. Working with Facility Services to perform the required monthly inspection on portable fire extinguishers as required by the Occupational Safety and Health Administration (OSHA) and the National Fire Protection Association (NFPA);
- 2. Maintaining a fire extinguisher inventory appropriate to the needs of the agency;
- 3. Maintaining appropriate brackets and extinguishers;
- **4.** Removing/replacing/exchanging inoperable or missing fire extinguishers discovered during building safety inspections;
- **5.** Upon being notified, replacing portable fire extinguishers with appropriate types when fire loads and/or occupancy change; and
- **6.** Scheduling and coordinating with a licensed contractor to perform the required annual inspection, maintenance, and testing of portable fire extinguishers;
- **7.** Maintaining all inspection, testing, maintenance, and any other service records for the life of the extinguisher;
- **8.** Maintaining a log for each building, campus, vehicle, etc. to include the size, type, serial number, and exact location for each extinguisher.

## **B.** Facility Services

- 1. Notifying Environmental Health and Safety in the event of a change in building fire loads or occupancy;
- 2. Surveying the entire campus for extinguishers during the normal course of the work day:
- **3.** Removing from service any inoperable fire extinguishers and replacing/exchanging it with an appropriate fire extinguisher from the Environmental Safety Inventory;

**4.** Relocating fire extinguishers to better serve the needs of the building occupants and meet the requirements of the applicable codes and standards.

#### C. Licensed Contractors

- 1. Performing annual maintenance and hydrostatic testing of portable fire extinguishers when scheduled; and
- 2. Making a report available upon completion of the annual inspection.

### **II.** Monthly Inspection

All portable fire extinguishers provided by Baton Rouge Community College shall be placed into a monthly inspection program. The monthly inspection shall be performed by the Environmental Safety and Facility Services departments.

The monthly inspection shall include a check of the following items:

- Confirm the extinguisher is in the proper location;
- Confirm the extinguisher is not obstructed;
- All seals and pins are in place and have not been removed or tampered with;
- If applicable, check gauge to ensure the pressure is within the operable range;
- Examine the extinguisher for obvious signs of physical damage, leakage, corrosion or clogged nozzles;
- Ensure that a current service log is available for the extinguisher;
- Should an inspector discover an extinguisher is damaged, missing, or inoperable, it shall be removed from service and replaced it with an extinguisher of the same rating and size;
- If the extinguisher is obstructed, the Environmental Safety department shall contact the responsible department whose materials are obstructing the fire extinguisher and make arrangements to have the obstructions removed immediately or work with the responsible department to relocate the fire extinguisher;
- Upon completing the monthly inspection, the inspector and Environmental Safety Department personnel shall date and initial the inspection log;
- The Environmental Safety Department shall maintain all inspection logs for the lifetime of the extinguisher.

### III. Annual Maintenance

All portable fire extinguishers shall have an annual maintenance check completed by a licensed and certified contractor or by an in-house service licensed and certified by the appropriate authority (i.e. NFPA, etc.). All maintenance and hydrostatic testing performed by the responsible party shall be in accordance with Chapter 10 "Portable Fire Extinguishers" of the National Fire Protection Association.

The scheduling of annual maintenance inspections is the responsibility of the Environmental Safety Department.

### IV. Selection

Any personnel responsible for the selection of fire extinguisher shall be familiar with the classes of fires and the fire rating of the area in question.

#### A. Classes of Fire

The following descriptions of the classes of fires will help determine what type of extinguisher is needed to extinguish a specific type of fire:

- 1. Class A fires involve ordinary combustible such as paper, cloth, wood, rubber and some plastics;
- 2. Class B fires involve flammable liquids such as gasoline, thinners, oil-based paints and greases;
- **3.** Class C fires involve energized electrical equipment such as computers, copy machines, television sets and video equipment;
- **4.** Class D fires involve combustible metals such as magnesium, titanium, zinc and potassium;
- **5.** Class K fires involve kitchen fires that contain cooking oils, and greases.

## **B.** Fire Loading

The following is a description of the three degrees of fire loading present on campus:

- 1. Light (Low) Fire Load: An Occupancy in which Class A combustible materials including furniture, window treatments, and its contents is of minor quantity. Small amounts of Class B flammable liquids such as duplicating and cleaning solvents are included provided that they are kept in closed containers and stored properly.
- **2. Ordinary** (**Moderate**) **Fire Load:** An occupancy in which Class A combustibles, Class B flammable liquids, and Class C energized electrical equipment are in greater amounts than expected under a low hazard. These locations include dining areas, storage areas, parking garages, and assembly halls.
- **3.** Extra (High) Fire Load: An occupancy in which the total amount of Class A combustibles, Class B flammable liquids, and Class C energized electrical equipment present is over and above those classified as moderate hazard. Theses occupancies and areas include laboratories, cooking areas, trade shops, and warehouses.

### C. Extinguisher Types

- **1. Pressurized Water:** The pressurized water extinguisher is the most popular type of extinguisher used for extinguishing Class A fires.
- **2.** Carbon Dioxide: The carbon dioxide fire extinguisher is primarily used in areas where the potential for Class B and Class C fire loads exist.
- **3. Multi-Purpose Dry Chemical:** The dry chemical fire extinguisher is used in areas where Class A, Class B or Class C hazards are encountered. This type of fire extinguisher is most common across the campus.
- **4.** Extinguishing Agents for Combustible Metals: There is no single extinguishing agent or powder that will control or suppress all combustible metal fires. The type of

extinguishing agent in a particular area is based on the type of combustible metals being used.

# **D.** Extinguisher Labels

All fire extinguishers shall have a label affixed to the front of the extinguisher showing operating instructions and the extinguisher rating. A pictogram, located on the fire extinguisher label, can be used for identifying the extinguisher's rating.

## **E.** Distribution of Portable Fire Extinguishers

The following chart gives the travel distances a person should not exceed in order to obtain a fire extinguisher.

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguisher (in feet)
Light (Low)	Class A: 2-A	75
	Class B: 5-B	30
	Class B: 10-B	50
	Class C: Based on placement of class A & B	
	Class D: Based on metal type	
	Class K: Compatible with automatic fire extinguishing system	30
Ordinary (Moderate)	Class A: 2-A	75
	Class B: 10-B	30
	Class B: 20-B	50
	Class C: Based on placement of class A & B	
	Class D: Based on type of metal	
	Class K: Compatible with automatic fire extinguishing system	30
Extra (High)	Class A: 4-A	75
	Class B: 40-B	30
	Class B: 80-B	50
	Class C: Based on placement of class A& B	
	Class D: Based on type of metal	
	Class K: Compatible with automatic fire extinguishing system	30

<sup>\*</sup>Most extinguishers located throughout the BRCC system are type ABC; however, there are type K extinguishers in all kitchens where oil and grease are present, and there is a type D extinguisher in the welding shop at the Acadian Campus.

## F. Extinguisher Mounting

All portable fire extinguishers shall be installed on brackets or mounted in wall cabinets. Extinguishers having a gross weight not exceeding 40 pounds shall be installed so the top of the extinguisher is not more than four (4) feet from the floor. Extinguishers having a gross weight exceeding 40 pounds shall be installed so the top of the extinguisher is not more than three and one half (3 ½) feet above the floor. The bottom of the extinguisher, in either case, shall not be less than four inches above the floor. Extinguishers shall be mounted in a manner to ensure the adequate support of the weight of the extinguisher.

Where the extinguisher is likely to be obscured, a sign shall be installed marking the location of the fire extinguisher. The sign shall be visible from a distance of at least 50 feet if the extinguisher cannot be relocated.

#### V. Documentation

Environmental Safety shall verify each affected employee has received and understood the required training through a written certification containing the name of each employee trained, the date(s) of training and the subject of certification.