



Fire Extinguisher Program

Department of Public Safety
Environmental, Health and Safety (EHS)
Standard Operating Procedure (SOP) #21

Department of Public Safety Fire Extinguisher Program

Department of Public Safety – Environmental, Health and Safety (EHS)

Standard Operating Procedure (SOP) #21 – November 2024

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1.0 Purpose, Scope and Applicability

Lafayette College provides and maintains portable fire extinguishers in all facilities for use in the event of a fire. The extinguishers, as well as their installation and maintenance, must meet requirements found in the National Fire Protection Association (NFPA) standard (#10).

Abbreviations, Acronyms and Definitions:

1. **NFPA:** National Fire Protection Association
2. **PFE:** Portable Fire Extinguishers
3. **IFC:** International Fire Code

2.0 Responsibilities

- Directors and Department Heads will:
 - o Ensure that appropriate supervisors and employees (new hires and transfers) are trained and knowledgeable in Fire Extinguisher safety as required by this standard.
- Department of Public Safety Environmental Health and Safety will:
 - o Review and update the College's Fire Extinguisher Safety Program annually.
 - Conduct Fire Evacuation Drills each semester
 - Inspect Fire Extinguishers Annually
 - Schedule maintenance for Fire Extinguishers as needed
 - Keep an inventory count of all replacement Fire Extinguishers

3.0 General Training

Lafayette College directs students, staff and faculty to sound a fire alarm and evacuate the building in the event of a fire.

Portable fire extinguishers (PFE's) are found in all buildings on campus. When used properly, PFE can save lives and property by putting out a small fire or containing it until the fire department arrives. PFE however, are not designed to fight a large or spreading fire. Extinguishers can be used to allow you to safely exit a burning building.

To provide educational training program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage firefighting and training in the use of appropriate equipment.

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The education and training shall be provided upon initial employment and at least annually, thereafter. PFE training is required for those who intend, or are expected, to use a fire extinguisher to put out a small fire in their work area, especially those who work in laboratories.

- Authorized employees will:
 - o Attend training as required.
 - o Follow the guidelines of Fire Extinguisher safety.

4.0 Specific Training

Those that require training include:

- **Facilities Management Trades**
- **Business Services and Events**
- **Public Safety:** Police, Security Officers
- **Faculty, students, or staff:** Any members who are assigned to work or study in a laboratory using flammable and/or combustible liquids or chemicals for the purpose of research or instructional needs. This includes persons that work in chemical storage rooms or facilities.

5.0 Fire Extinguisher Ratings and Class of Fires: (Appendix A)

- Class A: Ordinary Combustibles
- Class B: Flammable Liquids
- Class C: Energized Electrical Equipment
- Class D: Combustible Metals
- Class K: Cooking Media

Class of Fire	Description
Class A Fires	Fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.
Class B Fires	Fires in flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable gases.
Class C Fires	Fires that involve energized electrical equipment.
Class D Fires	Fires in combustible metals, such as magnesium, titanium, zirconium, sodium, lithium, and potassium.
Class K Fires	Fires in cooking appliances that involve combustible cooking media (vegetable or animal oils and fats).

6.0 Lafayette College Facilities - Fire Extinguisher Policy

- Placement of Fire Extinguishers in common areas of residential buildings shall be a minimum UL Classification of 2-A and 40-BC and shall be achieved with a single Fire Extinguisher.

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- Maximum walking distance shall be 75ft to a Fire Extinguisher.
- Placement of Extinguishers in Areas with Special Hazards or High Hazards:
- Common area(s) within 50 feet walking distance to a special/high hazard area/room shall be considered part of the hazard area. The hazard area shall be covered within the walking distance of the Fire Extinguisher installed in the common area.
- Placement of Fire Extinguishers in common areas of special/high hazards shall:
 - Have a minimum UL Classification of 4-A and 80-BC
 - Achieve this rating by no more than two extinguishers mounted within three feet of each other.

7.0 Placement of Portable Fire Extinguishers

Fire Extinguishers on Lafayette College owned properties shall be installed in Common Areas: areas along normal paths of travel including exits, hallways, seating areas near exits, and any other shared spaces.

Common area Fire Extinguishers in all Lafayette College owned buildings shall have the following minimum requirements: A UL Listing of 2A-40BC, be properly mounted, and have a 75-foot maximum walking distance to the Fire Extinguisher.

This policy contains additional requirements for non-common areas, residential areas, and special/high hazard areas.

- This policy shall refer to IFC, NFPA 10, or other applicable codes for references on proper mounting of Fire Extinguishers, square footage requirements, minimum UL Listings, and any other code related reference not covered in this document.
- Fire Extinguishers shall be mounted with a code approved method. The mounting requirements for any new installation are as follows: Shall have 6 inches of clearance under the fire extinguisher to the floor unless stored in a Fire Extinguisher cabinet
- Shall have 24 inches of clearance to the sides of the fire extinguisher and the area around where the Fire Extinguisher is mounted
- Shall not be mounted more than 42 inches high to the top of the cylinder
- Shall not be mounted in a way that requires a user to strain or reach more than 12 inches to equip the fire extinguisher
- Shall have an unobstructed path of access to the Fire Extinguisher location
- Where the Fire Extinguisher is not clearly visible, there shall be a Fire Extinguisher sign installed indicating its location. For Signage requirements and standards reference NFPA 10.4
- Any new install completed by Department of Public Safety EHS shall follow current applicable codes.
- Any existing extinguisher locations will be reviewed by Public Safety and modified as allowed by room layout and in coordination with occupants.

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8.0 References for Common Area Fire Extinguisher Placement

- Lafayette College falls under the Jurisdiction of the Easton Code Enforcement. The City of Easton Fire Dept. phone – 610-250-6676
- The City of Easton has adopted the International Fire Code.
- There are amendments that the City of Easton has made to specific areas of the IFC. This document shall strictly adhere to any and all applicable codes and/or amendments that are adopted by the City of Easton.
- The international fire code heavily references NFPA 10 for code references pertaining to Fire Extinguisher placement.
- National Fire Protection Association: Standard for Portable Fire Extinguishers: NFPA 10 (6.2.1.1 & 6.3.1.1)
- National Fire Protection Association: Standard for Portable Fire Extinguishers: NFPA 10 (6.3)
- Lafayette College Facilities

9.0 Inspections and Maintenance

- Department of Public Safety EHS shall be responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.
- **Monthly Inspections:** Fire extinguishers shall be inspected monthly by custodial staff and a record maintained by EHS. Monthly Inspections are completed by the custodial staff (initials monthly on PFE hang tags). EHS Public Safety staff will inspect PFE annually.
- The record shall consist of signing/initialing the inspection tag, as well as being documented in the Public Safety records.
- Each extinguisher must have a tag or label attached that indicates the month and year the last annual certification was performed, the identification of the person performing the certification, and whether any service was performed.
- **Annual Inspections:** Department of Public Safety EHS shall assure that portable fire extinguishers are subjected to an annual maintenance check.
- **Dry Chemical PFE:** EHS shall assure that stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.

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- Hydrostatic Testing is performed by trained persons with suitable testing equipment and facilities. Hydrostatic testing shall meet all OSHA, NFPA, or other applicable regulatory standards.

A 6-year maintenance and Hydro testing will be done by A+ Fire Protection Co.

A+ Fire Protection Co.

2985 W. Scenic Dr.

Danielsville, PA 18038

610-837-9160

aplusfireservices@yahoo.com

10.0 Record Keeping

- Records are stored in the Public Safety, Google Shared (G) Drive, for reference;
[G:\Shared drives\Public Safety EHS Staff\Fire Extinguisher Program\New FE Recordkeeping](#)

11.0 Inventory & Storage

- Fire extinguishers are housed in the 1001 Bushkill Dr. basement in a locked, caged area.

12.0 Smoke Detector Inspections

- During the summer months, facilities operations will schedule inspections and testing of the smoke detectors in all residents' halls. A Department of Public Safety EHS Specialist will escort the 3rd Party Vendor to any rooms scheduled that a student occupies. This schedule will be confirmed with Department of Public Safety EHS prior to May of each year.

13.0 Fire Blankets

- Fire blankets are utilized in the following areas; this is to protect the equipment from further damage of using a fire extinguisher.
 - Acopian Engineering Center
 - William Visual Arts Building

14.0 Associated Standards:

- NFPA 10, Standard for Portable Fire Extinguishers
- NFPA 101, Life Safety Code
- OSHA, 29 CFR 1926.352, Fire prevention
- OSHA, 29 CFR 1910.157, Portable Fire Extinguishers
- OSHA, 29 CFR 1910.38, Emergency Action Plans
- OSHA, 29 CFR 1910.39, Fire Prevention Plans
- International Code Council/International Fire Code, 2015

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Notable references:

- A+ Fire Ext. Co. (extinguisher inspection/recharge)
- Easton Fire Co.
- JCI (fire alarms)






4National Fire Protection Association: Standard for Portable Fire Extinguishers: NFPA 10 (6.1.3.3.2)

5Occupational Safety & Health Administration: 29 CFR Section 1910.157

6National Fire Protection Association: Standard for Portable Fire Extinguishers: NFPA 10 (6.1.3.1)

7National Fire Protection Association: Standard for Portable Fire Extinguishers: NFPA 10 (6.1.3.3.2)

Appendix A: The following table, along with Table 6.2.1.1 and 6.3.1.1 of NFPA 10, will help you determine the required travel distance and maximum floor area.

Extinguisher Class	Max Travel Distance	NFPA 10 Section (2018 ed.)	Notes
Ordinary  Combustibles	75 ft	Table 6.2.1.1	Travel distance can be altered by the type of hazard anticipated and the numerical A rating of the extinguisher.
Flammable  Liquids	30 ft or 50 ft	Table 6.3.1.1	Travel distance is based on the type of hazard anticipated and the numerical B rating of the extinguisher. See table 6.3.1.1 below.
Electrical  Equipment	N/A	6.4.3	Since extinguishers are never only Class C rated you need to follow the Class A or Class B rating requirements.
Combustible  Metals	75 ft	6.5.2	
K Cooking Media 	30 ft	6.6.2	Class K: Cooking Media

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Appendix B: The following table, along with Table 6.2.1.1 and 6.3.1.1 of NFPA 10, will help you determine the required travel distance and maximum floor area.

Table 6.3.1.1 Fire Extinguisher Size and Placement for Class B Hazards			
Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers	
		ft	m
Light	5-B	30	9.14
	10-B	50	15.25
Ordinary	10-B	30	9.14
	20-B	50	15.25
Extra	40-B	30	9.14
	80-B	50	15.25

Table 6.2.1.1 Fire Extinguisher Size and Placement for Class A Hazards			
Criteria	Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A
Maximum floor area per unit of A	3000 ft ²	1500 ft ²	1000 ft ²
Maximum floor area per extinguisher	11,250 ft ²	11,250 ft ²	11,250 ft ²
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

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Appendix C: Hydrostatic Inspection & Test Tag – (front/back)

Building # Ext # Birth Year of Y Fire Exting.

FIRE EXTINGUISHER RECHARGE & INSPECTION RECORD

INSPECTION CHECKLIST

1. Access to, or visibility of, the extinguisher shall not be obstructed.
2. The operating instructions on the extinguisher nameplate shall be legible and facing outward.
3. Check the safety seal for tamper indications and make sure the pin is not missing. Any seals of tamper indicators that are broken or missing shall be replaced.
4. Visually examine externally. Check that there is no obvious physical damage or condition that would prevent operation.
5. Check to make sure the extinguisher has a yellow Lafayette College sticker on it.
6. Check that the extinguisher is fully charged and operable. Be sure those and/or nozzle is unobstructed.
7. Sign-off inspection on reverse with the date (month/year) and your initials.

*HYDROSTATIC TEST RECORD

Date of Test: 2020

LAFAYETTE

INSPECT THE EXTINGUISHER CAREFULLY BEFORE SIGNING INSPECTION RECORD

HELP PREVENT FIRE

Example

INSPECTION RECORD

2024	INITIAL	2025	INITIAL	2026	INITIAL
JAN		JAN		JAN	
FEB		FEB		FEB	
MARCH		MARCH		MARCH	
APRIL		APRIL		APRIL	
MAY		MAY		MAY	
JUNE		JUNE		JUNE	
JULY		JULY		JULY	
AUG		AUG		AUG	
SEPT		SEPT		SEPT	
OCT		OCT		OCT	
NOV		NOV		NOV	
DEC		DEC		DEC	

custodian's initials

RECHARGE RECORD

DATE	BY	DATE	BY

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Appendix D: Fire Extinguisher Inspection and Recharge Record – (front/back)

Building
Ext

Birth Year of Extinguisher
Y Y

FIRE EXTINGUISHER RECHARGE & INSPECTION RECORD

INSPECTION CHECKLIST

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6. Check that the extinguisher is fully charged and operable. Be sure those and/or nozzle is unobstructed.
7. Sign-off inspection on reverse with the date (month/year) and your initials.

HYDROSTATIC TEST RECORD

Date of Test: _____

LAFAYETTE

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Example

INSPECTION RECORD

2024	INITIAL	2025	INITIAL	2026	INITIAL
JAN		JAN		JAN	
FEB		FEB		FEB	
MARCH		MARCH		MARCH	
APRIL		APRIL		APRIL	
MAY		MAY		MAY	
JUNE		JUNE		JUNE	
JULY		JULY		JULY	
AUG		AUG		AUG	
SEPT		SEPT		SEPT	
OCT		OCT		OCT	
NOV		NOV		NOV	
DEC		DEC		DEC	

Custodian's Initials

RECHARGE RECORD

DATE	BY	DATE	BY
10/24-6YR	A+Fire		