

LP 4.15

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Revised:

Policy Owner: Board of Trustees

Policy Administrator: VP for Finance and Administration

Affected Parties: Employees

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Flammable Liquids and Chemical Storage

References: OSHA 29 CFR 1910.106

- 1 Purpose
 - 1.1 The purpose of the Flammable and Chemical Storage Policy is to protect lives and property on the Lander University campus.
 - 1.2 This policy describes proper storage and handling procedures for flammable materials and other chemicals.
- 2 Scope
 - 2.1 This policy applies to all Lander University employees and staff.

3 Responsibilities

- 3.1 Safety and Regulatory Compliance Officer The Safety and Regulatory Compliance Officer has overall responsibility for:
 - 3.1.1 The currency and accuracy of this policy.
 - 3.1.2 The full implementation of this policy.

3.2 Facilities Operations Manager The Facilities Operations Manager is responsible for:

3.2.1 Working with all departments across the Lander University campus to ensure that the Fire Hazards Inventory – Storage and Handling Procedures (Appendix A) is completed and implemented, as described in Lander University's Fire Prevention and Safety Plan.

- 3.2.2 Working with all departments across the campus to ensure compliance with the program.
- 3.3 Supervisors

All supervisors are responsible for:

3.3.1 Ensuring that all aspects of this program are implemented in their areas of responsibility.

3.4 Employees

All employees are required to:

- 3.4.1 Follow the procedures outlined in this policy.
- 3.4.2 Report all hazards to their supervisors.

4 Definitions

- 4.1 <u>Aerosol</u>: A material which is dispensed from its container as a mist, spray, or foam by a propellant under pressure. Flammable aerosols shall be considered Category 1 flammable liquids for the purpose of this policy.
- 4.2 <u>Flashpoint (FP)</u>: The minimum temperature at which a liquid gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid, and that shall be determined as follows:
- 4.3 <u>Flammable Liquid</u>: Any liquid having a flashpoint at or below 199.4°F (93°C). There are four categories for flammable liquids:
 - 4.3.1 <u>Category 1</u>: Liquids that have a flashpoint below 73.4°F (23°C) and a boiling point at or below 95°F (35°C).
 - 4.3.2 <u>Category 2</u>: Liquids that have a flashpoint below 73.4°F (23°C) and a boiling point above 95°F (35°C).
 - 4.3.3 <u>Category 3</u>: Liquids that have a flashpoint at or above 73.4°F (23°C) and at or below 140°F (60°C). When a Category 3 liquid with a flashpoint at or above 100°F (37.8°C) is heated for use to within 30°F (16.7°C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint below 100°F (37.8° C).

4.3.4 <u>Category 4</u>: Liquids that have a flashpoint above 140°F (60°C) and at or below 199.4°F (60°C). When a Category 4 flammable liquid is heated for use to within 30°F (16.7°C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 3 liquid with a flashpoint at or above 100°F (37.8°C).

5 Storage Inside Building

- 5.1 Unless in protected fire-rated rooms, flammable liquids stored inside buildings (except in buildings described in Section 6 of this policy) shall be stored in flammable cabinets.
 - 5.1.1 Flammable liquids may be removed from flammable storage cabinets for one day's use and then returned to the storage cabinets.

6 Flammable Storage Buildings and Outside Storage

- 6.1 Flammable storage buildings shall be at least 50 feet from other buildings.
- 6.2 Flammable liquids shall not be stored in a manner that limits or obstructs the use of exits, stairways, or other areas normally used for the safe egress of people.

Category Liquid	Storage Level	Protected Storage Maximum Gallons per Pile	Unprotected Storage Maximum Gallons per Pile
1	Ground and upper floors	2,750	660
		(50) ¹	(12)
	Basement	Not permitted	Not permitted
2	Ground and upper floors	5,500	1,372
2		(100)	(25)
	Basement	Not permitted	Not permitted
3	Ground and	16,500	4,125
FP<100F	upper floors	(300)	(75)
	Basement	Not permitted	Not permitted
3	Ground and	16,500	4,125
	upper floors	(300)	(75)
FP≥100F	Basement	Not permitted	Not permitted
		-100	Not permitted
	Ground and upper floors	55,000	13,750
λ		(1,000)	(250)
4	Basement	8250	Not permitted
		-450	Not permitted

6.3 Storage inside buildings shall meet the following requirements:

- 6.3.1 When two or more categories of materials are stored in a single pile, the maximum gallonage permitted in that pile shall be the smallest of the two or more separate maximum gallonages.
- 6.3.2 Aisles shall be provided so that no container is more than 12 feet from an aisle. The main aisle shall be at least three feet wide and side aisles shall be at least four feet wide.
- 6.3.3 Each pile shall be separated from each other by at least four feet.
- 6.3.4 FP means Flashpoint.
- 6.3.5 The numbers in parenthesis indicate the corresponding number of 55-gallon drums.

¹ See Section 6.3.5 for explanation of numbers in parenthesis within this table.

Category	Maximum Qty. Per Pile	Distance Between Piles
1	1,100 gal.	5 feet
2	2,200 gal.	5 feet
3 FP<100°F	4,400 gal.	5 feet
3FP≥100°F	8,800 gal.	5 feet
4	22,000 gal.	5 feet

6.4 Storage outside buildings shall be in accordance with the following:

- 6.4.1 When two or more categories of materials are stored in a single pile, the maximum gallons in that pile shall be the smallest of the two or more separate gallonages.
- 6.4.2 No pile shall be closer than three feet to the nearest beam or other obstruction and shall be at least three feet below sprinkler heads or other overhead fire protection systems.
- 6.4.3 Aisles at least three feet in width shall be provided where necessary for egress paths and access to windows or standpipe connections.

7 Handling and Use

- 7.1 Category 1 or 2 flammable liquids, or Category 3 flammable liquids with a flashpoint below 100°F (37.8°C), shall be kept in covered containers when not actually in use.
- 7.2 Where flammable liquids are used or handled, except in closed containers, means shall be provided to dispose of leakages or spills promptly and safely.
- 7.3 Category 1 or 2 flammable liquids, or Category 3 flammable liquids below 100°F (37.8°C), shall be used only where there are no open flames or other sources of ignition within the possible path of vapor travel.
- 7.4 Areas of use shall be properly ventilated in order to prevent the build-up of fumes.
- 7.5 Combustible waste material and residues in a building or operating area shall be kept to a minimum and disposed of daily.

8 Non-flammable Storage and Handling

- 8.1 Non-flammable chemicals shall be stored and handled in accordance with the information on the chemical's Safety Data Sheet (SDS)
- 8.2 Chemicals that are not compatible shall not be stored together.
- 8.3 Safe operating procedures shall be followed for each chemical.

9 Policy Revision History

- First draft of policy submitted by Finance and Administration on 1/6/2025.
- Review by Policy Coordinator on 1/28/2025.
- Reviewed by Board of Trustees Policy Committee on 2/12/2025.
- Approved by Lander University Board of Trustees on 3/4/2025.