

I. Purpose

This policy protects employees, students, visitors, and contractors from accidental machine or equipment start-up. It also prevents the release of stored energy during maintenance or servicing.

II. Scope

This policy applies to all Kansas State University employees, students, visitors, and contractors working on equipment that has an energy source.

III. Definitions

- 1) **Affected Employee** - Someone who operates or works near machines or equipment under lockout.

This also applies to any work that may result in the release of stored energy to include but not limited to the following: steam lines, water lines, hydraulic lines, electrical wiring, and devices.

- 2) **Authorized Employee** - A person who locks out machines or equipment to safely perform maintenance or servicing.
- 3) **Energized** - When a machine or equipment is connected to a power source or contains stored energy.
- 4) **Energy Isolating Device** - A mechanical device that blocks the release of energy (e.g., circuit breaker, valve, or switch). Regular light switches or push buttons do not count.
- 5) **Energy Source** - Any power source, including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or kinetic energy.
- 6) **Lockout** - Placing a lock on an energy isolating device to prevent operation until the lock is removed.
- 7) **Lockout Device** - A lock used to keep equipment in a safe, off position.
- 8) **Qualified Person** - Someone trained to recognize and avoid electrical hazards.

- 9) Servicing and/or maintenance** - Activities like installation, inspection, cleaning, adjusting, or repairs that expose employees to unexpected energy releases.

IV. Responsibilities

1) Environmental Health and Safety

- Maintain and update this policy.
- Provide training.
- Audit lockout procedures to ensure compliance.
- Assist departments in developing lockout procedures.

2) Engineering and Construction Department/Office of Facilities Planning and Development

- Ensure new equipment includes lockout procedures.
- Inform contractors of lockout procedures and ensure compliance with 29 CFR 1910.147, and procedures are followed during all contracted work.

3) Department Heads

- Ensure a system within their department is in place to comply with the university Lockout Policy.
- Designate and communicate the responsibilities listed in paragraph D. of this section to the managers or supervisors of the department.

4) Authorized/Affected Employees

- Follow lockout procedures.
- Attend required training.
- Report problems with procedures to supervisors.

5) Other Employees, Students, Contractors, and/or Visitors

- Do not perform maintenance on equipment that requires lockout.
- Contact Physical Plant if equipment needs servicing.

V. Procedures

1) Written Procedures for Lockout

Departments must create written lockout procedures for each machine or equipment. Exceptions must be approved by both the department and EHS.

2) General Procedure for Lockout

Lockout must be performed in accordance with this procedure whenever specific written procedures are not required. See **(Section V.A) Written Procedures for Lockout** for information on when specific written procedures are required.

1. Notify affected employees that the machine or equipment needs to be shut down.
2. Turn off the machine using normal procedures (e.g., pressing the stop button).
3. Isolate energy sources (e.g., turning off circuit breakers or closing valves).
4. Lock out the energy source with an approved lockout device.
5. Release or restrain any stored energy (e.g., bleed off pressure, block moving parts).
6. Verify the equipment is disconnected by testing its controls.
7. Return controls to the "off" position after testing.

3) Restoring Equipment to Service

When maintenance is complete:

1. Remove unnecessary tools and equipment.
2. Ensure all employees are safely positioned.
3. Confirm controls are in neutral.
4. Remove lockout devices and restore power.
5. Notify affected employees that the machine is ready for use.

4) Special Procedures

- **Testing Equipment:** If lockout devices must be removed for testing, follow these steps:
 1. Remove tools and clear the area.
 2. Ensure employees are in a safe location.

3. Confirm controls are in neutral.
 4. Remove lockout devices and energize equipment.
 5. After testing, reapply lockout measures.
- **Removing a Lockout Device When the Authorized Employee is Unavailable:**
 1. A supervisor must verify the employee is not on campus or inside the equipment.
 2. The lockout device may be removed after reasonable attempts to contact the employee.
 3. The employee must be informed before resuming work.
 - **Group Lockout:**
 1. One authorized employee oversees the group lockout.
 2. Each employee applies a personal lockout device before working.
 3. If multiple crews are involved, one employee must coordinate safety measures.
 - **Plug and Cord Equipment:** Employees must unplug portable or fixed equipment before maintenance. If they leave the area, they must attach a lockout device to the plug.
 - **Shift or Personnel Changes:**
 1. Oncoming employees must exchange lockout devices with outgoing employees.
 2. Equipment must be retested to confirm it remains de-energized.
 3. Employees must discuss the maintenance status and any upcoming testing.

VI. Training and Recordkeeping

- 1) All authorized and affected employees must receive initial and annual training.
- 2) Retraining is required when:
 - a) Job assignments change
 - b) New hazards arise
 - c) Inspections identify deficiencies.
- 3) Training records will be maintained by EHS and/or departmental managers or supervisors. Training records must include:
 - a) Dates of training.
 - b) Instructor names
 - c) Copies of training materials
 - d) Names of trained employees

VII. References

[OSHA CFR 1910.147 - The Control of Hazardous Energy \(Lockout/Tagout\)](#)

VIII. Questions

Direct questions to EHS by phone: 785-532-5856 or email: safety@ksu.edu

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IX. Version History

Version	Description of Change	Effective Date
1	Standardize Format	03-19-2025