OSHA Title 29 CFR 1920.147
Protect employees from the potential dangerous effects of hazardous energy

What Are Some Sources of Hazardous Energy?

<table>
<thead>
<tr>
<th>Source</th>
<th>Example</th>
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<tbody>
<tr>
<td>Electrical</td>
<td>Mechanical</td>
</tr>
<tr>
<td>Pneumatic</td>
<td>Thermal</td>
</tr>
<tr>
<td>Hydraulic</td>
<td>Chemical</td>
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<tr>
<td>Gravity</td>
<td>Water under pressure</td>
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</tbody>
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Why Lockout/Tagout?

- This program defines the requirements for controlling the unexpected release of energy associated with machines, equipment, or processes that could kill or injure your colleagues.
- Program is intended to preserve the safety of those individuals involved with servicing or maintaining equipment or machinery at NC State University
- This program applies to activities such as, but not limited to: adjusting, cleaning, constructing, inspecting, installing, operating, repairing, or maintain equipment or machinery

Lockout devices

- Must be standardized
- Authorized employees should NEVER use someone else’s lockout lock

Tags

- Must be standardized
- Must identify the individual who applied it
- Attached to the lock
- NOT a physical restraint

Fundamentals of Lockout/Tagout Safety Program

1. Preparation and Notification
2. Shutdown
3. Apply Lock and Tag
4. Verification of Isolation
5. Keeping a Lock and Tag in Place

OSHA requires that all authorized employees be trained in the recognition of hazardous energy sources, the type and magnitude of energy sources available in the facility and how to perform the lockout/tagout procedures. OSHA also requires that all effected employees must be trained in the purpose and use of lockout/tagout.

All other employees must be instructed in the purpose of the plan and that no one can attempt to restart or reenergize equipment that is locked or tagged out.