UNIVERSITY OF NOTRE DAME

Lock, Tag, Try (LTT)
Zero Energy Procedure

Key Revisions

UNIVERSITY OF NOTRE DAME

Updated: 1/4/17

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What is LTT?

- Lock, Tag, and Try (LTT) is designed to protect personnel from hazards associated with the unexpected energization, start-up, or release of energy from machinery and equipment during maintenance, repair, servicing or modifications.
- Required by OSHA – 29 CFR 1910.147 “The Control of Hazardous Energy (Lockout/Tagout)”

Notre Dame LOTO Requirements

- University of Notre Dame now refers to Lockout/Tagout as **“Lock, Tag, and Try – Zero Energy”**
  - Why the name change?
    - Reminds authorized employees that locks and tags are required and that equipment must be “tried” to ensure it is in a “zero energy” state.

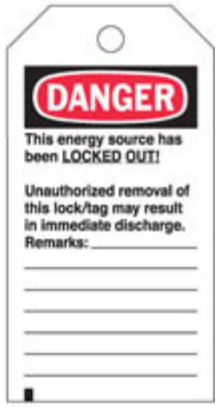
Authorized Employee

- To become an “authorized” employee for LTT, the following must be completed:
  1. Be granted permission by your supervisor or manager to become authorized for LOTO
  2. Successfully complete the online portion of LOTO training through ***complyND***
  3. Review and understand supplemental material in ***complyND***
  4. Obtain locks through the University Locksmith (if necessary)

ND Standard Locks and Tags

- Acceptable locks are made from American Lock, Master Lock and the Brady Company.
  - These are the only locks acceptable for ND personnel for use during LTT
  - These locks shall be only used for LTT
- Locks must be obtained from the University Locksmith Services

Lock Colors and Use	
Red	Personal Lockout Lock
Blue	Group Lockout Lock
Green	Long Term Equipment Isolation



Lockout Locks

- Only **one key** to a lockout lock is permitted. The key shall remain with the authorized employee who owns the lock during a LTT.
- An authorized employee may own multiple personal locks and the locks may be keyed alike.
- **All locks used during a lockout must be accompanied with a tag. The Authorized Employee's name must be on the tag.**
  - The tag may be imprinted on the lock.

Energy Control Procedures

- A documented step by step procedure describing the proper sequence of steps required to properly de-energize the equipment.
  - **The energy control procedure must be developed before the equipment may be locked out.**
- Exception – Documented lockout procedures are not required for equipment with only 1 isolation point.
  - **The equipment must still be locked out with a lock and tag.**

Energy Control Procedure Example

Department:	ND Department Name	Date of Last Revision:	January 1, 2017
Building and Location:	UND Building Name and Exact Location of Equipment	Author:	Jane Doe

Equipment Name:

This is the name or description of the equipment to be locked out.

Identifier	Energy Type & Magnitude	Lockout Location	Isolation Step	Verification
E1	240 Volt Electrical	This is the location of the energy isolation point	This describes how the energy is isolated and locked out	This describes how to test to ensure the machine will not start
E2	110 Volt Electrical			
P1	100 psi Air			

Example energy isolation point identifiers. These get placed at the isolation point.

Group Lockout

- If there are multiple authorized employees working on equipment or there are numerous energy isolation points, a group lockout may be used.
- To initiate a group lockout, an authorized employee applies “**BLUE**” **Group Lockout Locks and Tags** to the isolation points and places the key(s) in the group lock box.
- Each person working on the equipment must apply their **RED** personal lock to the group lock box.
  - This is to ensure that the key(s) to the group lockout locks can’t be removed until everyone has removed their personal lock from the box.

Use a **BLUE** lock at the energy isolation points. Place key(s) in lock box.

Extended Lockout

- If equipment is taken out of service for an extended period for reasons other than protection of personnel, the equipment may be isolated using a **GREEN** long-term equipment lock.
  - The green lock signifies that the equipment is not safe to operate and no one is actively making repairs to the equipment.
  - The lock must have a tag which identifies who isolated the equipment, reason the equipment is out of service, and the date the equipment was isolated.

Contractors

- The contract employer shall train their authorized employees and shall provide proof of training when requested by the ND.
- Contractor authorized employees shall be familiar with the ND Lock Tag Try procedure.
- Contractor authorized employees shall coordinate LTT with the ND Contractor Point-of-Contact. This includes the notification of affected employees.

Emergency Lock Removal

- When the ND authorized employee and/or contractor who applied the lock and tag is not available to remove it, that device can only be removed under the direction of the designated supervisor and a RMS representative.

Training

- Authorized Employees – Training required annually
- Affected Employees, those who operate the machine or are in the area – Training required initially and if program changes
- Training will be in ***complyND***

Program Review

- LTT field observations will be performed by departments with personnel performing LTT
  - Field observations will be conducted. The observations will include a review of LTT procedure application by authorized employees and verification that associated energy control procedures are appropriate, understood, and implemented.
  - The review will be documented and retained for RMS review.