



# Mini Module



# Lock Out/Tag Out

- OSHA 1910.147
- Protects Employees
- Written Procedures
- Affordable preventive measure
- Best Practice for farm – not difficult

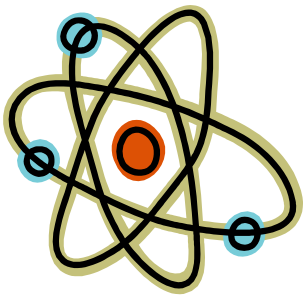


**Best Practice!**



# Lock Out/Tag Out

- Prevents release of hazardous energy.
- Power sources “isolated and rendered inoperative”.
- Includes stored or residual energy.
- De-energizes machines & equipment.
- Uses energy isolating devices.



**Energies** – electrical, mechanical, hydraulic, pneumatic, chemical, thermal, gravity, and others.



# Lock Out/Tag Out

Protects Employees & You:

- From injury.
- From unexpected startup.
- During service & maintenance work.
- Working near exposed electrical conductors & parts of electrical equipment.



**Keeps others from turning machines on!**

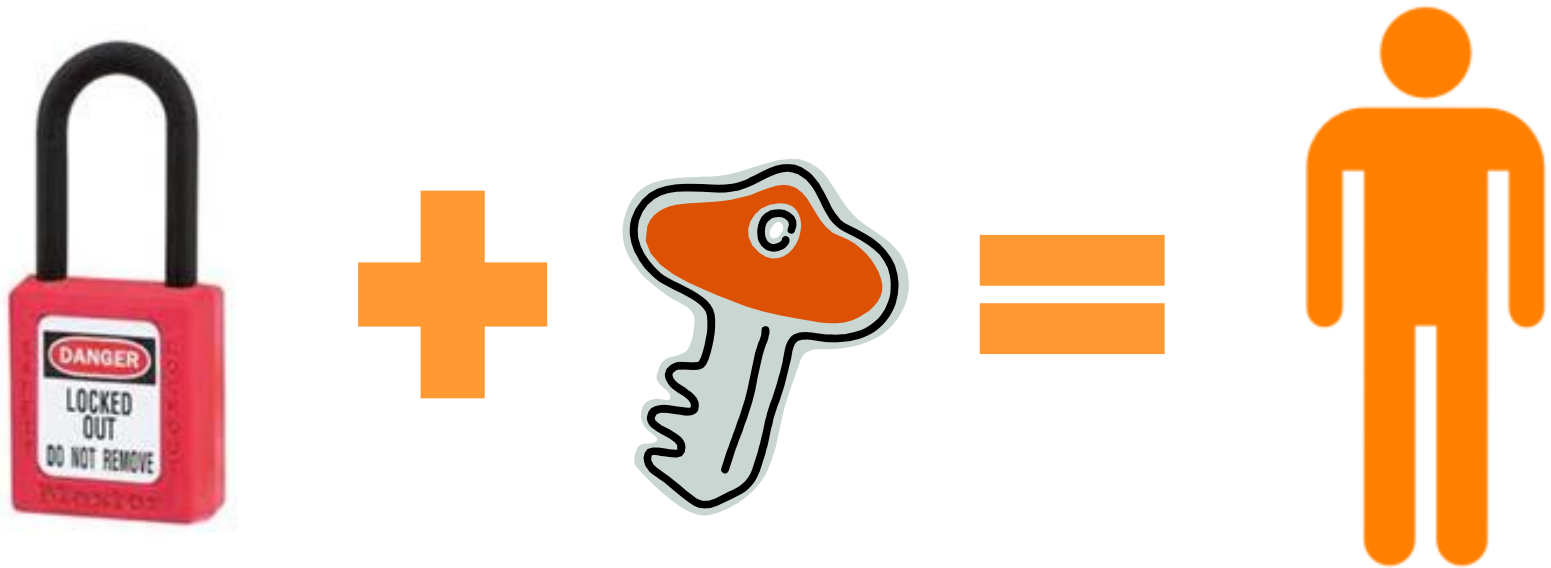


# Lock Out/Tag Out Requirements

- ONLY authorized employees perform LOTO.
- ALL Employees must be trained.
- Use proper locks and tags.
- Written LOTO procedures.
- Review procedures annually.
- Follow LOTO each time – every time.



# Lock Out Requirements

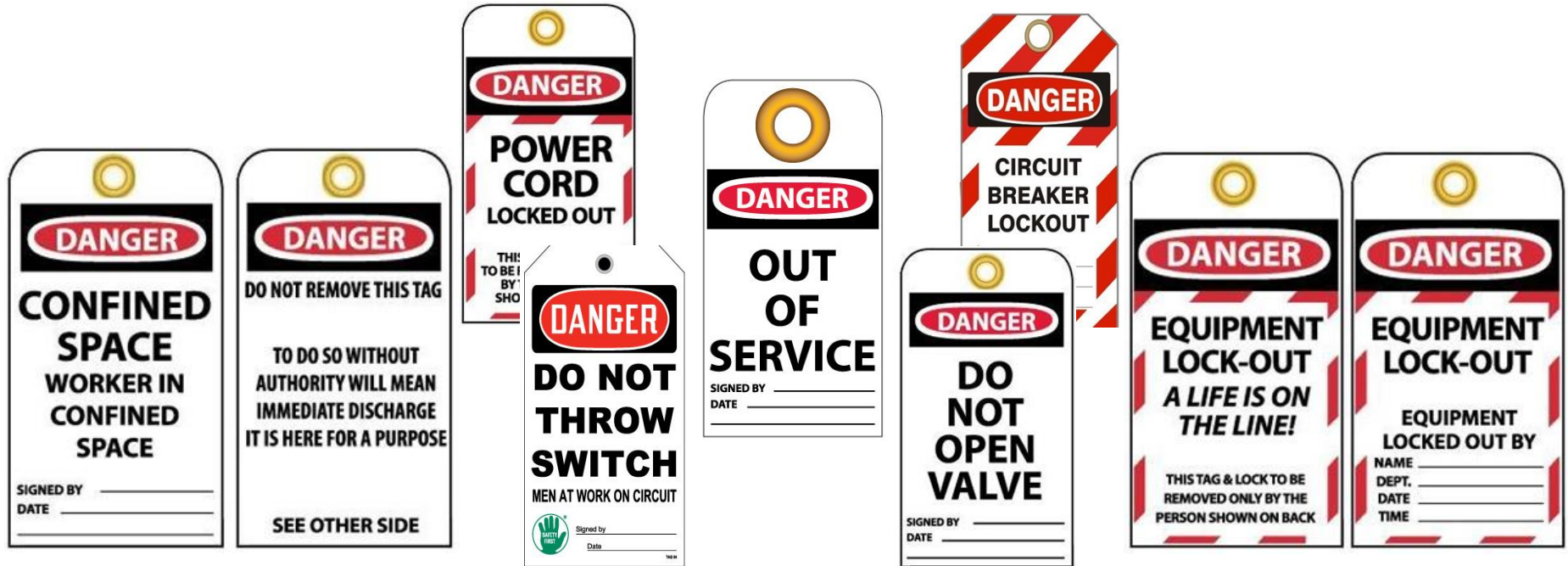


**Lock Out** - isolation of energy from the system (a machine, equipment, or process) which physically locks the system in a safe mode.





# Tag Out Requirements



**Tag Out** – Labeling process to indicate why LOTO is required & equipment being controlled cannot be operated until tag is removed.



# Lock out/Tag out – Try Out!

All Procedures include:



- Tell how to use procedures.
- Specific steps
  - To shut down, isolate, block, & secure machine.
  - Safely place, remove, & transfer of LOTO devices
  - To test machine & verify energy is Locked out.
- Identify responsible person for LOTO.





# Lock Out/Tag Out - Try Out!

1. Prepare for shutdown –
  - Notify affected persons of LOTO.
2. Shut down machine.
  - Release or restrain stored energy.
3. Disconnect or isolate ALL energy sources.
4. LOTO - Install locks on energy sources & tag machines.
5. Tryout – test LOTO by attempting to start.



# Lock Out/Tag Out - Try Out!

## 6. Begin maintenance/service work.

- Complete work.
- Clean up area of tools.

## 7. Notify persons of intended start-up.

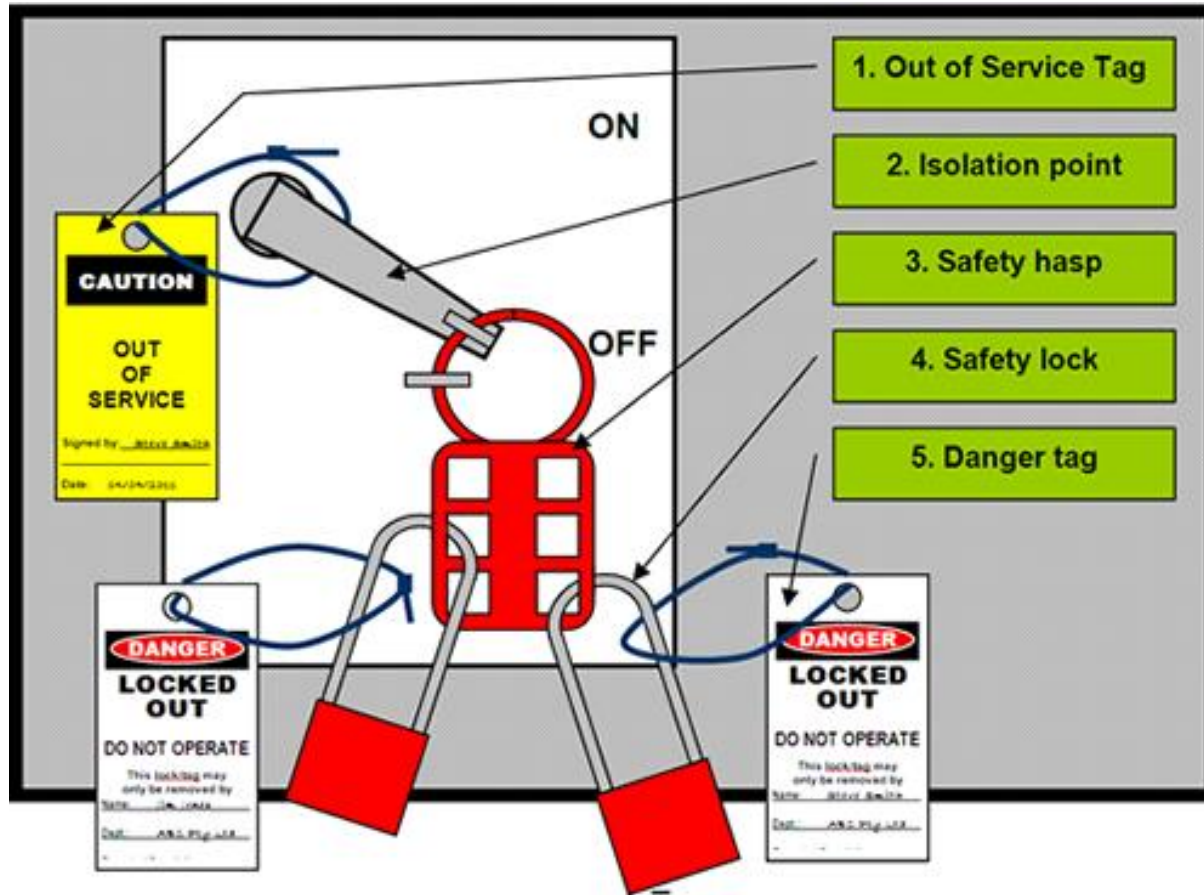
- Ensure people are safe distance.

## 8. Start – up.

- Remove lock out devices.
- Start-up & verify working normally.
- Remove tags.



# Lock Out/Tag Out Example



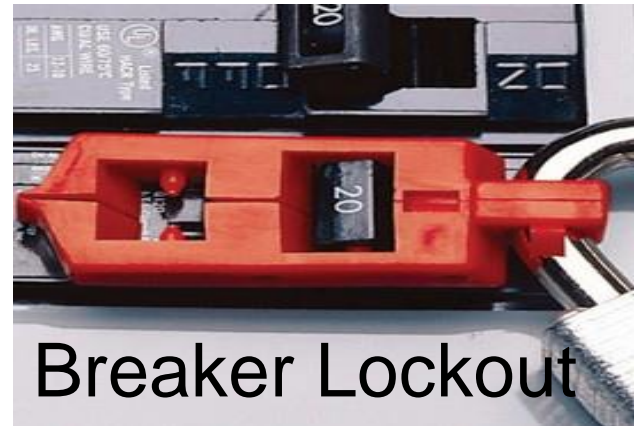
# Type of LOTO Locks



Wall Switch Lockout



Padlock



Breaker Lockout



Pole Breaker Lockout



Valve Lockouts



Lockout Hasp



# Why LOTO for Farms

- Father & son discussed need to check a cross auger on top of a bin.
- No responsibility assigned.
- Dad checked auger; did not like what he heard.
- Dad got on top of bin & stuck his arm in the auger.
- Son decided to check the auger.
- Father lost his forearm.



# Why LOTO for Farms

If they had a system in place — dad would still have his arm and son wouldn't have his GUILT.

What a farm can do:

- Put a tag on it – Warning.
- Use locks.
- Use a hairpin cotter key.



Use of OSHA procedures is strongly recommended.





# LOCKOUT / TAGOUT PROCEDURE

Equipment or Process: Dry Leg

Type of lockout needed: Pad Lock, and Tag



All energy must be locked out before maintenance is to begin. To lockout the Dry Leg take the following steps:

- STEP 1 - PREPARE FOR SHUTDOWN, NOTIFY ALL AFFECTED EMPLOYEES RADIO OR DIRECT COMMUNICATION
- STEP 2 - IN NORTH ELECTRICAL SHED DISCONNECT ELECTRICAL MAIN LABELED "DRY LEG". PLACE PADLOCK AND TAG ON THE MAIN SWITCH ARM
- STEP 3 - VERIFY THAT ENERGY IS ISOLATED BY ATTEMPTING TO START THE MACHINE.
- STEP 4 - BEGIN MAINTENANCE.
- STEP 5 - WHEN ACTIVITY IS COMPLETED, CLEAR ALL TOOLS, EQUIPMENT, AND PERSONNEL FROM AREA.
- STEP 6 - NOTIFY AFFECTED EMPLOYEES OF REACTIVATION.
- STEP 7 - REMOVE LOCKOUT DEVICES.
- STEP 8 - REACTIVATE MACHINE AND VERIFY NORMAL OPERATION.

