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PRESS RELEASE

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LOCKOUT/TAGOUT

Hazardous energy is potentially deadly.

Whether it's electrical, mechanical, hydraulic, pneumatic, chemical, or thermal, hazardous energy can lead to a worker's death.

Hazardous energy sources include conveyor systems, grain bin systems, pneumatic and hydraulic systems, and electrical wiring. Uncontrolled energy can result in electrocution, burns, crushing, cutting, lacerating, amputating, or fracturing body parts, etc.

These types of incidents can occur during the maintenance of machines and equipment when unexpected startups or the release of stored energy occurs.

One way to protect yourself and those working around equipment is to make sure dangerous machinery is shut off and cannot be restarted while someone is working on it. The acronym for Lockout/Tagout is LOTO. Since 1989, the Occupational and Safety Health Administration (OSHA) has issued LOTO procedures to ensure worker safety.

According to the OSHA mandates, LOTO procedures must include:

- Creation and implementation of energy-control procedures.
- Training workers/employees on the procedures.
- Use of locks, tags, and other methods to physically prevent the release of harmful energy.
- Inspection of maintaining energy control procedures to ensure they're in good working order.
- Preparation processes for unexpected startup.
- Providing staff with training on job-related dangers.
- Establishing protocols for inspecting, maintaining, and testing equipment.
- Keeping a record of all LOTO-related actions.

These safety practices save lives and reduce expenses by decreasing lost worker time and insurance costs and boosting output by decreasing equipment downtime.

According to OSHA, “while using different kinds of technology, lockout and tagout complement each other. Lockout devices stop workers from operating equipment physically, while the tagout device warns them it should not be used.”

To implement LOTO procedures, workers utilize a lock to isolate energy sources that may cause

injury while equipment is under maintenance or repair. Generally, lockout involves locking a main electrical switch in the “off” position to prevent startup. For other types of energy, a lock may be applied to an electrical breaker, electrical knife switch, air swing valve, hydraulic gate valve, or a combination of these.

A lock intended for these purposes generally includes a bright-colored printed tag to provide a visual warning of potential injury and include the name of the worker who installed the lock. When power involves push buttons, selector switches, toggle switches, dials, limit switches, or control circuit devices, shut off power at the source.

Grain bin LOTO kits may be available from a local grain bin company or reputable online agricultural supply site. Pennsylvania State University Extension notes that “typically, the kits include multiple locks with lock-specific keys, locking devices, and tags. The LOTO kit or wall-mounted station should be accessible to all workers, and annual training on this process should be provided. Managers should train new workers on the LOTO procedure before beginning to work on the farm. Training should enable workers to understand the importance of energy control, and all workers should have the necessary skills to follow the LOTO process.”

Penn State recommends the following eight steps for an effective LOTO process:

1. Review and understand the procedures for safely shutting down the equipment.
2. Notify others about the scheduled shutdown.
3. Once all workers in the area are notified, equipment can be shut down.
4. After the equipment is shut down, it is essential to ensure that all primary and

secondary energy sources are secured and the equipment cannot be unintentionally energized.

5. To verify that the lockout procedure is effective, ensure everyone is clear and attempt to start the equipment.

6. If the equipment remains de-energized, install a locking device to the energy control component compatible with the specific application.

7. Install a documentation tag that states when (date, time, etc.) and why (i.e., machine repair, maintenance, etc.) the system was locked and the names of the person(s) performing the work.

8. The locking device should be secured by a padlock by each person performing work, paired with a key specific to their lock, which they keep with them.

Tags with cautionary labels might state:

- “DANGER” or “WARNING”
- Instructions such as “Do Not Operate.”
- Purpose, such as “Equipment Maintenance”
- Timing of the LOTO

While some farm workers are exempt from OSHA LOTO laws, understanding the law of physics, which applies to everyone, helps workers realize that turning off equipment doesn't make that equipment safe to work on until the stored energy is released.

Some steps to help develop LOTO procedures for a specific farm site include evaluating each piece of equipment to determine how to release stored energy in a controlled manner and interrupting energy release to prevent the equipment from moving. Determining what types of LOTO devices are required. And applying the

LOTO control device and attempting to restart the equipment to ensure all power sources have been locked out.

Information about OSHA online LOTO training is available at <https://www.osha.com/courses>.

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