



## National Grain and Feed Association

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### NGFA Safety Tips: Lockout/Tagout & Energy Isolation

...Committed to promoting safety and health in the workplace...

#### Prevent workplace injuries during service and maintenance operations...

OSHA's standard for *The Control of Hazardous Energy (lockout/tagout)* (29 CFR 1910.147) establishes the employer's responsibility to protect employees from hazardous energy sources on machines and equipment during service and maintenance. In addition, 29 CFR 1910.333 sets forth requirements to protect employees working on electric circuits and equipment. The standard outlines controls to isolate machines or equipment from their energy source and affix appropriate locks or tags to prevent any unexpected energization, startup or release of stored energy that could injure employees. Some of the most critical provisions in the standard establish requirements for employers to develop a program to lock and tag energy-isolating devices that include the following components:

- Implement written energy-control procedures that ensure machines and equipment are isolated and inoperative before any employee performs service or maintenance on such equipment;
- Implement an employee training program; and
- Conduct periodic inspections to ensure the procedures are effective



#### Written Energy Control Programs

Written procedures identify the information employees must know to control hazardous energy during equipment service or maintenance. If the information is the same for various machines or equipment, then a single energy-control procedure may be sufficient. If there are other conditions – such as multiple-energy sources, different connecting means, or a particular sequence that must be followed to shut down the machine or equipment – the employer is to develop and implement separate energy-control procedures to protect employees. Each written procedure for a machine or piece of equipment must include the following steps:

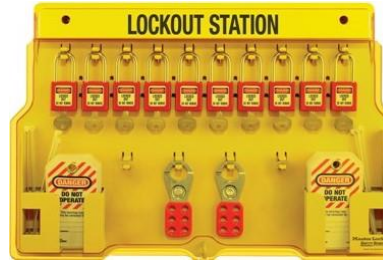
1. Notify affected employees;
2. Shut down the machine or equipment;
3. Isolate machine/equipment from the energy source;
4. Apply lockout/tagout device to machine or equipment;
5. Safely release stored or residual energy; and
6. Verify the isolation of energy to the machine or equipment before work begins.

## NGFA Safety Program

- The NGFA is committed to promoting safety and health in the workplace, and shares the Occupational Safety and Health Administration's (OSHA's) commitment to protecting employees.
- The NGFA's extensive efforts to enhance safety include unprecedented research and education efforts launched in the early 1980s that helped lead to a dramatic reduction in the number of fire and explosion incidents in commercial grain-handling facilities.
- Each year, NGFA jointly sponsors regional safety seminars with affiliated state and regional grain and feed associations. The one-day conferences focus on keeping grain handling employees physically safe.

The following should be implemented before lockout/tagout devices can be removed and energy restored to the machine or equipment:

1. Inspect the area to ensure non-essential items have been removed and any machine components or guarding have been replaced;
2. Ensure all employees are positioned safely or removed from the area;
3. Verify that the controls are in neutral;
4. Lockout/tagout devices removed by employee who placed them; and
5. Notify affected employees of the removal of the lockout/tagout devices.



### Requirements for Lockout/Tagout Devices

- supplied by the employer
- singularly identified
- used only for this purpose
- durable to the elements and not deteriorate
- identifiable to the employee(s) who applies them
- locks standardized by color, shape or size, tags standardized according to print and format
- substantial enough to minimize early or accidental removal

### Employee Training

The employer is required to provide and certify that initial training and retraining, as necessary, has been conducted to ensure all employees understand the purpose, function and restrictions of the energy-control program.

Retraining must be provided when:

- There is a change in job assignments, machines, equipment or processes that presents a new hazard;
- When there is a change in the energy-control procedures; and
- If the required periodic inspection reveals there are deviations from or inadequacies in the energy-control procedures.

**Authorized Employees:** Training for authorized employees is to include the following topics:

- Recognition of applicable hazardous energy sources;
- Details about the type and magnitude of the hazardous energy sources present;
- The methods and means necessary to control those energy sources; and
- The means of verifying the effectiveness of energy control and the purpose of the procedures to be used.

### **\*NOTE\***

A separate OSHA standard – the grain handling facilities standard (29 CFR 1910.272) – specifies the lockout/tagout procedures required for employees who enter grain and flat storage areas. Specifically, this standard requires that lockout and tagout be used on all equipment that poses a hazard to employees working in these areas.



**Convey17** (formerly NGFA-Grain Journal Safety Conference ) is a conference and trade show focused solely on providing the nuts-and-bolts information you need. Best practices, action plans, regulatory updates, product solutions - ***we get in the weeds so that you don't have to.***

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**Affected Employees:** Employees who operate, use or work in an area where machines or equipment on which service or maintenance may be performed under lockout or tagout are to be instructed in the purpose and use of the energy-control procedures.

**Other Employees:** OSHA requires that employees who may be affected by the energy-control procedures be instructed about the procedures and importance of not attempting to start up or use the equipment, and that lockout/tagout equipment must not be removed or tampered with.

## **Periodic Inspection**

The employer is required to evaluate the energy-control procedures at least annually to ensure that each procedure continues to be implemented properly and that employees are familiar with their responsibilities.

Periodic inspections are to be performed by an authorized employee other than the one(s) using the energy-control procedures. The employer is to certify that the periodic inspection has been performed, including the date of inspection, the identity of the machine or equipment on which the energy-control procedure was used, the employees included in the inspection and the name of the person conducting the inspection.

For lockout procedures, the periodic inspection is to include a review between the person conducting the periodic inspection and each authorized employee about the given employee's responsibilities under the energy-control procedures being inspected.

For tagout procedures, a review of the limitation of tags also must be included between the person conducting the inspection and each authorized employee, operator or other employees working at the facility.

OSHA Grain Handling  
Standard

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OSHA CFR 1910.147

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OSHA CFR 1910.147  
App A

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**More safety information at [www.ngfa.org](http://www.ngfa.org)**

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