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SAMPLE LOCKOUT/TAGOUT PROGRAM

 (company name) recognizes that during servicing and/or maintenance of equipment, our employees have the potential to be involved in a serious or fatal accident caused by the unexpected start-up of equipment or the release of stored energy. This policy has been developed to establish (company name) procedures for the control of hazardous energy, hereafter called **Lockout/Tagout**. This policy is intended to comply with the requirements of OSHA standard 29 CFR 1910.147, Control of Hazardous Energy (lockout/tagout), and the provisions of OSHA's Electrical Safety-Related Work Practices Standards: 29 CFR 1910.331; 1910.332; 1910.333; 1910.334; and 1910.335.

Important Definitions:

Energy source. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Energized. Connected to an energy source or containing residual or stored energy.

Energy isolating device. A mechanical device that physically prevents the transmission or release of energy. This includes: locks; hairpins; tongs; lockable valves; clam shell devices for valves; blank flanges for piping systems; restraining devices to prevent movement of parts; etc.

Lockout device. A device that utilizes a positive means such as a lock to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.

Lockout. The placement of a lock on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the device is removed.

Normal production operations. The utilization of a machine or equipment to perform its intended production function.

Servicing and/or maintenance. Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include: lubrication; cleaning or un-jamming of machines or equipment, and adjusting or tool changes where employees may be exposed to the **unexpected** energization or start-up of the equipment or release of hazardous energy.

Cord and Plug Connected Equipment. Equipment where the only energy source is electrical power provided by a plug in connection.

APPLICABILITY

An operation is regulated by the lockout/tagout policy when:

1. Any employee (or contractor) is required to remove or bypass a guard or other safety device.
2. Any employee (or contractor) is required to place any part of his body into the mechanism of a piece of equipment or path of hazardous energy unless:
 - a. the activity is routine, repetitive and integral to the use of the equipment
 - b. the operator has been properly trained in the precautionary steps necessary to perform the activity safely or is provided other protection (guarding)

TRAINING

Each employee (or contractor) involved in or affected by lockout will be trained in the following areas before being allowed to work in the area:

1. The recognition of hazardous energy sources (see attached list of energy sources)
2. The type and magnitude of the energy located in the workplace
3. The procedures for energy isolation and control including specific procedures developed for equipment and systems
4. The purpose and use of the energy control (lockout/tagout) procedure
5. The prohibition and penalties for attempts to restart or re-energize equipment which has been locked out or to work on equipment without following the lockout/tagout procedures

Affected employees are those personnel working around equipment or systems that are subject to lockout/tagout but are not directly involved with them. These personnel are not required to be familiar with specific procedures for equipment and systems.

Retraining or refresher training will be conducted whenever one of the following exists:

1. The employee has a change in job assignment
2. There has been a change in the equipment or process
3. There has been a change in the energy control procedure
4. Any time an inspection reveals deviations from the standard procedures; inadequacies in the employee's knowledge or use of the lockout/tagout procedure; or an accident as a result of unexpected energy release

All employee training and retraining will be documented and verified by the signing and dating of the Annual Lockout/Tagout Program Audit Report form. These records are to be maintained with the written lockout/tagout procedures and updated annually.

LOCKOUT/TAGOUT PROCEDURE

Background: This procedure has been developed to establish formal methods, procedures, and equipment to be used to ensure that before any employee (or contractor) performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated, and rendered inoperative.

It is the stated intent of this program to use locks wherever possible with identification tags to provide positive energy isolation. If, in the judgement of company management, the equipment cannot be locked out, warning tags may be used. In this special case there will be written justification on file with the specific isolation procedures for this equipment. Should this equipment require upgrade or modification, it will have lockable switches, fittings, or valves added so that it becomes possible to lockout the equipment.

Lockout Procedures: Equipment will only be locked or tagged out by authorized employees who have been trained in the company's procedure and who are familiar with the specific procedures for the equipment.

1. All employees affected by lockout/tagout will be notified of the application of the lockout devices and/or tags at the beginning of the lockout procedures.
2. Equipment will be shut down following specific procedures developed for the affected equipment.
3. All energy sources will be identified from the specific procedures for the affected equipment. (Energy sources include electrical, mechanical, hydraulic, pneumatic, thermal, chemical, and others (see attached energy list)).
4. All energy sources are to be **locked out**. Each employee involved with the operation will place his/her lock on each energy-isolating source. The locks must be applied with a warning tag describing why the equipment is locked out, who placed the lock on the equipment, and the date. Locks used for lockout will have two keys. One key will remain in the possession of the individual locking out the equipment. The other key will be in the custody of (official to be chosen by company) in a secure location. All locks used in the facility must be keyed individually.
5. Stored or residual energy must be relieved, disconnected, blanked off, restrained, and otherwise rendered safe. Energy sources subject to reaccumulation, such as capacitors, hydraulic reservoirs, air tanks, steam traps, etc., should be controlled by isolation and locking out. If there is a possibility of reaccumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed.
6. When all steps involved with shut down listed in the specific procedures for equipment have been completed, make sure that all personnel are clear, and attempt to start or activate the equipment to make sure that all energy sources have been locked out. Return controls to "off" position.
7. Cord and plug connected equipment does not require lockout/tagout if the following conditions exist:

The authorized individual is within sight of the equipment

Unplugging the equipment isolates the equipment from all energy sources

The equipment has no stored energy

If equipment must be left unattended or if all of the above conditions do not apply then the equipment will be locked and tagged out by attaching a tag to the on/off switch and attaching a lockout device to the plug to prevent it from being plugged in.

Tagout Procedures

It is the (company name) policy not to use tags alone in an energy isolation procedure. The only exceptions to this must be authorized by (company official) with written justification as to why the equipment or process does not lend itself to being physically locked out. Should this equipment be upgraded or modified so that it becomes possible to lock out the equipment, lockable switches, fittings, or valves will be added.

1. Tags are to be used with locks to identify the individual, the hazard, and the date.
2. Tags must be durable and able to withstand the environment in which they are used.
3. Tags are to be attached with pull ties and must be securely attached so that it is readily apparent what the tag is warning about. Alternate methods of attaching tags may be used as long as they are not easily removed or reusable and must withstand 50 pounds unlocking strength. (rubber bands, wire ties, and string are not permissible means of attachment).
4. Any employee who removes, bypasses, ignores, or otherwise defeats a tag without permission of the authorized person responsible for it or proper management approval, is subject to immediate dismissal. (see procedures for removal of locks and tags)
5. In employee training the employee must be made aware that tags do not protect against the unexpected energization of the equipment, and they should be extraordinarily alert around tagged out equipment and systems that is not also locked out.

Group Procedures

In the event that that multiple authorized employees must be involved for a single lockout/tagout procedure, (company official) will be the single authorized employee with the overall responsibility for controlling hazardous energy for all members of the group while the work is in progress. This authorized employee must implement the energy control procedures, communicate the purpose of the operation to group, coordinate the operation, and ensure that all procedural steps have been properly completed. Each authorized employee involved in the group lockout/tagout activity must be familiar with the type and magnitude of energy that may be present during the servicing and maintenance work. Each employee in the group must affix his/her personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism, before engaging in the servicing and maintenance operation. The authorized employee in charge of the group must not remove the group lockout or tagout device until each employee in the group has removed his/her personal device.

Multi-Workshift Operations

In the event individuals other than those that originally locked or tagged out the equipment must complete that lockout/tagout work during either a shift change or other personnel change, (company official) will be the single authorized employee with the overall responsibility for controlling hazardous energy for this operation. At each transfer of this type the incoming employees will have an opportunity to verify that the equipment has been deenergized prior to placing his or her lock or tag on the equipment.

Steps for Restoration of Equipment and Removal of Locks and Tags

These procedures are extremely important and must be followed whenever any locked or tagged out equipment will be brought back into service or whenever locks or tags are to be removed.

Unauthorized removal of a lock or tag on a properly locked out piece of equipment will result in

immediate dismissal. To remove locks or tags from a piece of equipment without the individual who locked it out requires the approval of (company official) after it has been verified that the individual who locked out the equipment is not at risk and that the equipment has been inspected by (company official) and is determined to be safe. This procedure is to be done only after every effort has been made to have the individual who locked out the equipment remove his lock and tag.

1. The work area is to be inspected to ensure that all personnel, tools, loose parts, and non-essential items are clear and that guarding is in place. If the equipment is to be brought on line for set-up or adjustment temporarily without guarding, affected employees must be adequately protected.
2. All employees who would be affected by the start-up of the equipment must be notified of the removal of the lockout devices **before** they are removed.
3. Prior to start-up the area must be inspected to ensure that all employees, contractor personnel, and others have been safely positioned. (This step is essential to eliminate the chance of anyone being exposed to unexpected release of hazardous energy).

Annual Review

(company official) will conduct an annual audit of **each lockout procedure**, the written program, and training to ensure that the procedures are adequate and that they are being followed. (This individual should not be directly involved with the day to day supervision of the lockout/tagout program) The audit must ensure that each procedure is adequate to provide effective protection to the authorized employee during servicing and maintenance operations covered by this standard. If authorized employees are deviating from these procedures, the employees involved must be retrained and the training documented. The person conducting the audits will observe a representative sample of authorized employees performing the servicing and maintenance operations using the lockout/tagout procedures. They will also perform a review with each authorized employee of that employee's responsibilities under the energy control procedure being audited. For tagout procedures, the review of responsibilities also includes the affected employees. The audit should include verification that training has been completed for all authorized and affected employees involved in the lockout/tagout procedure. Authorized and affected employees should know the location of specific written procedures for equipment. Employees must be able to explain the purpose of this procedure and the details of how it works.

Contractors

It is the intent of (company name) to protect the outside contractors like any other employee covered by the lockout/tagout program. Contractors must provide a copy of their lockout/tagout program and evidence that their company has trained them about lockout/tagout before they are allowed to work at this facility. If they can not provide this information, they will be covered under the company's program and undergo lockout/tagout training at this facility like one of our employees. (company official) will oversee all lockout/tagout operations at this facility and will coordinate all operations involving outside contractors to ensure the protection of both the contractors and our employees.

This program is an important part of (company's name) safety program and is critical to ensuring the safety of our employees and others working in our facility. If you have any questions about applicability of this program to any operation or procedure check with your supervisor.

Methods selected to lockout/tagout the equipment: (example: locks; hairpins/tongs; valve clamshell; chain with lock; etc.)

Specific Steps to Lockout/Tagout the Equipment

1. Notify all affected employees that this equipment is being locked out.

Procedure for verifying isolation:

Specific Procedures for Bringing the Equipment Back On-Line

- 1.
- 2.
- 3.
4. Replace all guarding and safety devices
5. Notify all affected employees that the equipment is no longer locked out.

Special group lockout/tagout procedures:

Specific procedures for locking and tagging out equipment to isolate unexpected releases of hazardous energy should be developed in cooperation with equipment operators, supervisors, engineers, equipment designers, and others who may have specialized knowledge.
