ENERGY CONTROL – LOCKOUT/TAGOUT PROGRAM

PURPOSE

The Occupational Safety and Health Administration's Lockout/Tagout Standard was designed to prevent deaths and serious injuries to maintenance workers by controlling hazardous energy. This Energy Control - Lockout/Tagout Program will assist Silgan in complying with the OSHA standard by establishing steps and procedures to control hazardous energy sources and prevent accidents.

SCOPE

This energy control program establishes minimum lockout/tagout requirements that will be followed at Silgan Containers. The program will assist management and employees in identifying and documenting energy sources associated with specific machinery. The program will also aid in the development of machine specific energy control or lockout/tagout procedures. This program outlines additional requirements necessary for compliance with the OSHA standard, including;

- Emergency lock removal
- Group lockout
- Shift changes
- Contractor requirements
- Minor production and service adjustments
- Employee training
- Annual program audits

APPLICATION

This program is mandatory and must be followed by all employees authorized to perform maintenance, repair, or service on any equipment or machinery where unexpected or unintended motion, start-up, or release of stored energy could occur and cause injury. The requirement of this program are based on 29 CFR 1910.147 and 8CCR 3314.

RESPONSIBILITIES

Management / Safety Coordinator:

- Ensure all aspects of the program are carried out.
- Review the program annually and update if necessary.
- Conduct annual lockout/tagout audit.
- Ensure all employees have been trained.
- Enforce the use of energy control – lockout/tagout procedures.

Supervisors:

- Complete energy source surveys for all machinery in their respective areas of supervision.
- Complete energy isolation – lockout/tagout procedures based on energy source surveys.
- Train all employees under their immediate control.
- Complete the annual certification for each authorized employee using the Energy Control Audit Record.
- Enforce the use of energy control – lockout/tagout procedures.

Employees

- Assist management with developing energy control surveys and procedures.
- Follow all energy control – lockout/tagout procedures.
- Make management aware of any newly recognized hazards.

ENERGY SOURCE SURVEY

Energy Source Surveys must be completed for all machinery in your facility. These surveys should be conducted by department supervisors with the assistance of hourly employees. The purpose of completing an energy survey is to identify all energy sources and their magnitude, determine if the energy sources identified can be isolated, and identify equipment needed to isolate the energy sources. These surveys are used as the basis for writing machine specific energy control – lockout/tagout procedures. A form has been provided for documenting these surveys.

ENERGY CONTROL – LOCKOUT/TAGOUT PROCEDURE

A machine specific Energy Control – Lockout/Tagout Procedure must be developed for each piece of machinery. The procedures will be based on the Energy Source Surveys. Completed procedures will outline specific steps that must be taken to ensure that all energy sources for a specific piece of machinery have been isolated and locked out. Machine specific procedures must contain the following information:

Department

Name of the department where machine is located

Machine name and manufacturer

Identify machine by common name, model number, and manufacturer

Specific energy sources

List all energy sources including; electrical, hydraulic, pneumatic, mechanical, thermal, chemical, etc. and their magnitudes (volts, amps, psi, temperature, etc.) This may include stored energy in the form of capacitors, springs, suspended loads, stored hydraulic or air pressure.

Employee notification
List job titles of affected employees that will be notified before equipment shutdown and lockout. Remind these employees that only authorized employees who install the locks may remove them.

Machinery shutdown
List each step of the normal shutdown procedure for this piece of machinery.

Energy source lockout
List the types and locations of energy isolating devices and how to lock them out. Include methods to dissipate or restrain stored energy if applicable.

Verification of energy isolation & lockout
Outline procedure for verifying that the machine's energy sources have been isolated and the machine has reached a zero energy state. Be certain to return all controls to the Off, Disengaged, or Neutral positions after the verification has been completed.

Perform maintenance or repair
The machine is now locked out. Perform the necessary service, maintenance, or repairs.

Restore machine to service
Check that the machine is operationally intact, that all tools or materials have been removed, and that all guards have been re-installed. Be certain that all employees are clear of the area and aware that the power will be restored.

Lock removal
Remove locks, lockout devices, tags, and re-energize the machine. Notify all affected employees that the maintenance or repair has been completed and the machine is ready for use.

It is mandatory that all steps of the procedure are followed and no short cuts are taken to ensure proper shut down, proper lockout/tagout, and proper start-up of equipment.

EMERGENCY REMOVAL OF LOCKOUT DEVICE

In the event that a lockout device must be removed by anyone other than the authorized person who installed the device, the department supervisor will comply with the following steps and confirm in writing to the Safety Coordinator that the proper steps were taken. Documentation of these steps will be done using the Emergency Lock Removal Record form.

- Make an attempt to contact authorized employee outside of the plant.
- Notify employees supervisor to inform authorized employee of his locks removal upon their return to work.
- Complete the Emergency Lock Removal Record form.
- Notify Safety Coordinator, Superintendent, or Plant Manager and obtain a signature.
- Remove the lockout device.

GROUP LOCKOUT

If more than one authorized employee will be involved in the maintenance or repair of a machine, group lockout procedures must be followed. Both of the following options are considered acceptable:

- If more than one authorized individual is required to lockout a machine, each must place their own personal lock on each of the energy control devices as outlined in the energy control procedure. If the energy control device will not accept multiple locks, a multi-lock hasp may be used.
- If it is not practical for each authorized employee to place a lock on the machine's energy control device, a designated authorized employee will lockout all energy control devices using his/her locks. The designated authorized employee will then place the keys into a group lock box and all authorized employees involved in the maintenance or repair of the machine will attach their locks to the group lock box. It is the responsibility of the designated authorized employee to assure that the machine specific energy control procedure is followed during the group lockout.

SHIFT CHANGES

Shift changes will be coordinated by the department supervisor in charge during the lockout procedure. The supervisor will assure that the steps below are followed:

- Authorized employees change locks and tags.
- All affected employees have been notified.
- The energy lockout has been re-verified and that the machine remains in a zero state of energy.

CONTRACTOR POLICY

All contractors must be informed of Silgan's energy control program and procedures. Contractors must use similar energy control procedures when working on machinery in a Silgan facility. A copy of the contractor's energy control program must be reviewed prior to the start of a project as stated in the Silgan Safety Manual's Contractor Safety Program.

PRODUCTION ADJUSTMENTS & MINOR SERVICEING ACTIVITIES

Minor tool changes, adjustments, and other minor servicing activities which take place during normal production operations are not covered by this energy control program if they are routine, repetitive, and integral to the use of the machine for production. However, the work must be performed using alternative procedures which provide effective protection to the employee. Effective protection for routine, repetitive, and integral related tasks must at least include:

- A properly designed control circuit such as an electrical interlock used in combination with a written safe work procedure or Code of Safe Practice.
- A manually operated energy isolating device used in combination with a written safe work procedure or Code of Safe Practice.

EMPLOYEE TRAINING

This Energy Control – Lockout/Tagout Program will be used as the basis for training all authorized employees. Management is responsible for assuring that all authorized employees receive this training prior to being allowed to participate in any energy control-lockout/tagout activities. The authorized employee training program must include a **review** of the following topics:

- The Energy Control – Lockout/Tagout Program.
- How to recognize applicable hazardous energy sources.
- The types and magnitudes of energy sources in your facility.
- Machine specific energy control procedures.

Affected and other employees will receive a brief training overview to assure they understand the purpose of the energy control program. Employees must also be advised not to attempt to restart or reenergize machines which are locked out.

Training shall be provided for all authorized and affected employees when they are first hired, when there is a change in their job assignment, a change in machines or processes that present a new hazard, or when there is a change in the energy control procedures. Refresher training shall be provided annually. This training must be documented using the Silgan Safety Meeting/Training form.

ANNUAL AUDITS

Each plant will conduct annual audits of all machine specific energy control procedures to ensure that the procedures are accurate and up-to-date. The audit shall be performed by an authorized employee from a department other than the one in which the energy control procedure is being used (i.e.; Press Department will audit Assembly Department or vice versa). The auditor must observe the implementation of the energy control procedure at the time of the audit. The auditor must also review with each authorized employee, that employee's responsibilities as defined by the energy control procedure. Any deviations or inadequacies of the energy control procedure identified during the audit must be noted and corrected. The audits must be documented using the Energy Control Audit Record.

ENERGY SOURCE SURVEY

Department: _____ **Date:** _____

Conducted By: _____

Machine Identification:
(Identify machine by name, model number, manufacturer, etc.)

Energy Source Identification:
(Identify and list all energy sources present on this machine including energy magnitude. Be sure to include electrical, pneumatic, hydraulic, chemical, mechanical, steam, natural gas, stored energy, etc.)

Energy Isolation:
(Identify all energy source disconnects and their locations)

Energy Lockout:
(Indicate if the energy source disconnects, valves, etc. can be locked out in their present form)

Lockout Equipment:
(List the equipment needed to lockout or otherwise control the identified energy sources)

Stored Energy Release:
(Identify means to dissipate, control, or block any stored energy)

Specialized Equipment:
(Some machinery may involve complex wiring and installation schemes. If you can not identify how to properly isolate energy sources, contact a qualified person for assistance)

Comments:

ENERGY CONTROL PROCEDURE

Department: _____ **Machine/Equipment Name:** _____

Specific Energy Sources:

Employee Notification:
(Job titles of affected employees to be notified)

Machinery Shutdown:
(Shutdown procedures for this machine)

Energy Source Lockout:
(Types and locations of energy isolation devices and how to lock them out.. Methods to dissipate or restrain stored energy)

Verification of Energy Isolation & Lockout
(Steps used to verify energy sources have been isolated and locked out)

Perform Maintenance or Repair

Restore Machine to Service
(Steps taken for preparing machine to be put back into service)

Lock Removal
(Steps taken for lock removal)

EMERGENCY LOCK REMOVAL RECORD

Date: _____ **Time:** _____ **Equipment:** _____

Authorized employee(s) lock that needs to be removed: _____

Has the authorized employee been located or contacted: _____ **Explain:** _____

_____

If the authorized employee was not located, list the steps that will be taken to immediately notify them upon return to work: _____

_____

Name of person who will cut/remove lockout device: _____

Signatures required before lockout device removal:

_____ _____

Authorizing Supervisor **Safety Coordinator, Superintendent or Plant Manager**

Emergency Lock Removal Procedure:

- **Contact authorized employee**
- **Notify supervisor to make arrangements to notify authorized employee upon return to work**
- **Complete Emergency Lock Removal form**
- **Notify Safety Coordinator, Superintendent, or Plant Manager and get signature**
- **Remove lock**

ENERGY CONTROL AUDIT RECORD

Authorized Employee: _____ **Date:** _____

Equipment Name: _____

Department / Area: _____

	Yes	No	N/A
• **Did employee receive refresher training?**	___	___	____
• **Does the employee know the types of energy the machine uses?**	___	___	____
• **Did the employee notify affected/other employees?**	___	___	____
• **Did the employee shut the machine down using normal shutdown procedures?**	___	___	____
• **Did the employee verify that the machine's energy sources were isolated?**	___	___	____
• **Did the employee check for stored energy?**	___	___	____
• **Did the employee correctly lockout energy control devices?**	___	___	____
• **Did the employee operate a button or switch to be certain machine will not operate?**	___	___	____
• **Does this energy control procedure effectively bring this machine to a Zero Energy State as intended?**	___	___	____
• **Was authorized employee responsibilities for this procedure reviewed with all authorized employees?**	___	___	____

_____ **Auditor Signature**

_____ **Safety Coordinator Signature**