

BACHMAN MACHINE COMPANY CORPORATE POLICY

Effective Date: 01-01-2000 Supersedes Policy No. _____ Date: _____

SUBJECT: LOCKOUT/TAGOUT POLICY

Objective: The objective of this policy is to establish the minimum requirements for the lockout of energy isolating devices whenever performing maintenance or servicing activities on machines or equipment. The procedure shall be used to ensure that the machines or equipment is stopped, isolated from all potentially hazardous energy sources and locked out prior to employees servicing or performing maintenance where any unexpected energization or start-up of machines or equipment or release of stored energy could cause injury or death.

Policy Statement: Only qualified “Authorized Employees” shall be allowed to perform servicing and/or maintenance activities that require the utilization of this policy and procedure. Those “authorized employees” are required to perform lock/tagout in accordance with this policy/procedure. However, all employees are required to comply with the restrictions and limitations imposed upon them during the use of the lockout/tagout procedure. Furthermore, all employees, upon observing a machine or piece of equipment that is locked or tagged out of service to perform servicing or maintenance shall not attempt to start, energize, or otherwise use that machine or equipment.

Definitions:

“Affected Employee” An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout or whose job requires him/her to work in an area in which such servicing or maintenance is being performed. In most situations, this employee will be the machine operator.

“Authorized Employee” A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An “affected employee” becomes an “authorized employee” when that employee’s duties include

performing servicing or maintenance covered under this section. In most situations, this employee will be a qualified member of the maintenance department.

“Capable of Being Locked Out” An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking device or mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

“Energized” Connected to an energy sources containing residual or stored energy.

“Energy Isolating Device” A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker, a disconnect switch, a manually operated switch by which the conductors of a circuit can be disconnected from all underground supply conductors and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are NOT energy isolating devices.

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

“Hot Tap” A procedure used in the repair, maintenance and service activities that involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

“Lockout” A placement of a lockout device 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 lockout device is removed.

“Lockout Device” A device that utilizes a positive means such a lock, either key combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.

“Normal Production Operations” The utilization of a machine or equipment to perform its intended production function.

“Servicing and 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 unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energizing or start-up of the equipment or release of hazardous energy.

“Setting Up” Any work performed to prepare a machine or equipment to perform its normal production function.

“Tagout” The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

“Tagout Device” A prominent warning device, such as a tag and a means of attachment, that can be securely fastened to an energy isolating device in accordance with an established procedure to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Employee Training:

Each employee authorized or otherwise affected by this procedure will receive initial training, as well as, periodic refresher training on the lockout/tagout procedure and the potential hazards of unexpected energizing or start-up of machines or equipment or the release of stored energy. Lockout/tagout training is conducted by the maintenance supervisor and a qualified outside consultant educated in lockout/tagout procedures. Such training will include and emphasize these elements:

Authorized Employees :

1. The purpose and function of this written procedure.
2. Recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods necessary for energy isolation and control.

3. The safe application, usage, and removal of energy controls.
4. Employee notification procedures.
5. The sequence for locking and tagging out machines and equipment.

6. Verification of deenergization procedures.
7. Restoration of the equipment to normal operation.

Affected Employees:

1. The purpose and function of this written procedure.
2. Recognition and understanding of the safe application, usage and removal of energy control (locking and tagging devices)
3. Employee notification procedures.
4. Prohibition of attempts to restart or reenergize machines or equipment locked out and/or tagged out.

All Other Employees:

1. The purpose and function of this written procedure.
2. Recognition and understanding of the safe application, usage, and removal of energy control (locking and tagging devices).
3. Prohibition of attempts to restart or reenergize machines or equipment locked out or tagged out.

Use Of Locking And Tagging Devices:

If a machine or piece of equipment is capable of being secured by locking, a locking device shall be used.

Tags can be utilized if (1) locks can not be utilized and (2) tagging out will provide equivalent employee protection as locking out would have. All locks shall be accompanied by a tag or attached placard identifying the purpose of the lock.

In the majority of situations, the Maintenance department employee will be designated as the first line in decisions concerning the lockout/ tagout procedure. Each maintenance employee will be assigned different color coded lockout apparatus(s) for easier identification and use in this procedure.

Locks designated for this procedure shall not be used for any other purpose other than securing energy sources. Locks shall have only a single key, duplicate keys or a

master key shall not be permitted.

Pre-Lockout/Tagout Preparation:

Prior to beginning the lockout/tagout procedure, a survey of the area and the machine or equipment that will be serviced must be conducted to locate and identify all isolating devices to be certain which switch(s), valve(s), or other energy isolating devices apply to the equipment or machine to be locked and tagged out. More than one energy source (electrical, mechanical or others) may be involved.

Employee Notification of Lockout/Tagout Activities:

Prior to the initiation of lockout/tagout procedures, the “authorized employee” performing the servicing or maintenance shall inform the supervisor of the department that the activities will be taking place. The supervisor **and** the “authorized employee” will notify all “affected employees” that a lockout or tagout system is going to be utilized and the reason therefor.

Upon the completion of the servicing and maintenance and the reenergization of the machine or equipment, the “authorized employee” who performed the servicing or maintenance shall inform the supervisor of the department that the activities will be taking place. The supervisor **and** the “authorized employee” will notify all affected employees that the servicing or maintenance on the machine or equipment previously locked and tagged is complete and back in service. There is no transferring of this responsibility, employee notification of the employee shall be conducted by the department supervisor and the “authorized employee” jointly.

Sequence of Lockout:

1. The “authorized employee” shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.
2. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc).
3. Operate the switch, valve or other energy isolating device(s) so that the equipment or machine is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam or water pressure, etc.) must be dissipated by methods such as repositioning, blocking, bleeding

down, etc.

4. Lockout out and tag the energy isolating device(s) with assigned, color coded individual lock(s) and tag(s).
5. After ensuring that no personnel are exposed, and as a check on having disconnected the energy source(s), try to operate the push button or other normal start-up control to make certain the equipment or machine will not operate.

CAUTION: *Return the operating controls(s) back to Neutral or “OFF” position after this test has been completed.*

6. The equipment or machine is now locked out and tagged out and the servicing or maintenance can begin.

Restoring Machines or Equipment To Normal Production Operations:

1. After the servicing or maintenance is completed and the equipment or machine is ready for normal operations, check the area around the machine or equipment to ensure that no one is exposed or unaware of the start-up.
2. After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove all lockout or tagout devices.. Operate the energy isolating device to restore energy to the machine or equipment. Have the operator run one or more test operations to see that the service or maintenance has been successful.

Procedure Involving More Than one “Authorized Employee”:

In the preceding steps, if more than one “authorized employee” is required to lockout or tagout the equipment or machine, each “authorized employee” shall place his/her own personal lockout or tagout device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout devices(hasp or gang locks) may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet that allows the use of multiple locks to secure it. Each “authorized employee” will then use his/her own lock to secure the box or cabinet.

As each

person no longer needs to maintain his/her lockout protection, that person will remove his/her lock from the box or cabinet..

Interruption of The Lockout/tagout Procedure:

When starting and stopping machinery or equipment, etc, while it is under a lockout/tagout, the “Authorized employee” initiating this movement/operation will advise and oversee to assure that all other “affected employees” are out of danger prior to proceeding with the temporary movement. When the movement/operation has been completed, the equipment or machinery will be shut down and the energy isolation device(s) will then be resecured by the “Authorized employee”.

Lock(s) and Tag(s) Not Properly Removed:

It is the responsibility of the “authorized employee” to remove his/her own lock(s) and tag(s) when his/her work has been completed, when he/she has been reassigned, or at the end of the shift, if someone else will be continuing the servicing or maintenance. In the event the “Authorized employee fails to remove his/her own lock(s) and tag(s) before leaving the premises and removal is necessary, the following steps must be taken:

1. The “authorized employee” must first determine who the individual is who has left the lock(s) and tag(s) and if that person is still available on the premise.
2. The reason for the lockout/tagout must be determined.
3. The “authorized employee” must make a responsible effort to contact the individual and to inform him/her that his/her lock(s) or tag(s) have to be removed.
4. The “authorized employee should contact a supervisor or manager to remove the lock(s) and tag(s) by cutting off the lock and/or removing the tag(s)
5. Immediately upon the return of the individual to the premises, he/she must be notified that his/her lock(s) and tag(s) had to be removed.
6. Documentation of this removal and verification of the attempt to reach the employee should be sent to the Maintenance department and a copy to the Human Resources department to be placed on file.
7. Any lock cut off or otherwise damaged in its removal shall

immediately be replaced in the lockout/tagout system.

Clearing Jam, Running Adjustments and Service Activity

This Energy Control Program does not cover normal production operations.
Servicing

and/or maintenance, which take place during normal production operation is covered if;

- (a) An individual is required to remove or bypass a guard or any other safety device, or
- (b) An individual is required to place any part of their body in an area of a piece of equipment or machinery where work is being performed on the material being processed or where an associated danger exists (Point of Operation).

Alternate means of disabling a machine for servicing without locking and tagging may be maintained, I.E. Emergency-stop buttons or guard doors interlocks, providing the person servicing the machine or equipment has immediate control of these means.

Contractor Employers:

Contractor and outside service personnel shall be made aware of and are to follow, as a minimum, the Lockout/Tagout procedure as outlined in this program. Departments utilizing contractor services must assure that their contractors understand and apply the necessary steps to be in compliance with these procedures.

General Information:

As a verification of the effectiveness of this program, the Manager of Human Resources to ensure the utilization of this procedure during servicing and maintenance of the Bachman Machine Company machinery and equipment will conduct periodic walk-through audits of the workplace. When lockout /tagout procedures are observed during any walk through, the Manager of Human Resources will record in a log the following:

- The date of the observation.
- What lockout/tagout procedure was being used.
- Who was observed, doing what to the machinery or equipment.

The logged activities will be maintained as evidence that individuals are, or are not, truly following the lockout/tagout procedure. If observed not complying with the established procedures, an individual will be counseled the first time and subject to disciplinary actions up to an including termination of employment the second time.

Effects: The effect of this policy shall be to:

- establish minimum guidelines for the lockout/tagout procedure for individual and multiple “authorized employees”.
- designate the responsibilities of the “Authorized Employee” as it relates to the his duties while performing under lockout/tagout situations caused by servicing or maintenance requirements.
- define the terms most commonly used in the lockout/tagout procedure.
- identify the type and extent of training and communications involved required for employees under the requirements of the lockout/tagout standard, CFR 1910.147.
- establish the sequences for a lock out, tag out, restoration of power or energy, removal of a lockout or tagout, and the return to normal operations.
- establish the instructions for generating a written Energy Control procedure for each of Bachman Machine Company’s major pieces of machinery or equipment .

APPENDIX

In accordance with 29CFR 1910.147, the lockout/tagout standard, the employer is required to have a written energy control procedure for each machine or piece of equipment in their facility that could release hazardous energy while an employee is performing servicing or maintenance activities.

Each procedure should address the specific steps necessary for (1) shutting down, isolating, blocking, and securing machines or equipment to control hazardous energy; (2) specify the placement, removal, and transfer of lockout devices or tagout devices and the responsibility for them; (3) specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

These written procedures are required, unless ALL of the following elements exist and can be verified upon request:

1. The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees.
2. The machine or equipment has a single source of energy that can be readily identified and isolated.
3. The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.
4. The machine or equipment is isolated from that energy source and locked out during servicing or maintenance activities.
5. A single lockout device will achieve a locked out condition.
6. The lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance activities.
7. The servicing or maintenance activities do not create hazards for other employees.
8. The employer, in utilizing this exception, has no accidents involving the unexpected activation or reenergization of the machinery or equipment during servicing or maintenance.

NOTE: A generic energy control procedure can be used for machines and

equipment provided that each specific machine or piece of equipment has an identical energy control procedure, I.E. drill presses, belt sanders, presses, saws, grinders, etc.

INSTRUCTIONS FOR COMPLETING THE ENERGY CONTROL PROCEDURE

The energy Control Procedure is an important accident prevention tool that works by giving specific step by step instructions for specific equipment or machinery to isolate energy sources and render them inoperative. By utilizing this procedure, it attempts to assure the protection of employees servicing or providing maintenance from unexpected energizing, starting up, or release of stored energy that could injure the worker or others assisting the worker.

SEQUENCE OF LOCKOUT/TAGOUT SYSTEM PROCEDURE

1. Examine the procedure for locking out or tagging out the energy source of the specific equipment or machine for this Energy Control Procedure.
2. Break down the procedure into a series of steps or tasks making sure that the steps are small and specific.
3. List each step and be very specific, defining locations, equipment, machine, and devices used or attached.
4. Include a list of steps to be followed to ensure that the energy source has been controlled.

SEQUENCE FOR RESTORING TO NORMAL OPERATION

1. Examine the procedure for returning the equipment or machinery back to normal operating condition.
2. Break down the procedure into a series of steps or tasks making sure that the steps are small and specific.
3. List each step and be very specific, defining locations, equipment or machine, and devices used or attached.
4. Include a list of steps to be followed to ensure that the equipment or machinery has been restored to operation.