Great Western Painting

Lockout/Tagout

OSHA Standards:

29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*

Control of Hazardous Energy

As a contractor, we would not be involved in normal production operations. We could, however, be involved in the constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing with the possibility of injury due to the unexpected energization, start up or release of stored energy. During these situations, we will comply with the provisions of 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)* and 29 CFR 1910.333, *Selection and Use of Work Practices*, the standards on which this program is based.

Coordination will be established between the client and, if appropriate, subcontractors to clearly indicate who is responsible for what function of the program as well as the identifying characteristics of the lockout/tagout devices -- shape, color, color codes for locks and tags, if used.

Coordination is required because -- for example: our employee may complete lockout/tagout procedures and perform maintenance on a fixed piece of equipment while a client’s employee is affected by that work.

All our employees affected by this program will be “authorized employees” by virtue of their work (see “Definitions” below.)

DEFINITIONS

There are a number of terms and phrases which must be understood by all employees to grasp the general thrust of this Program. For those employees directly involved with this Program or affected by it, there are specific requirements and procedures which would be meaningless without an understanding of the "language" of Control of Hazardous Energy.

**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.

**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 service or maintenance covered under 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*.

**Note:** An authorized employee is authorized to service only machines and equipment with which he/she is familiar by training and/or experience.

**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 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 source or 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 ungrounded 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.

**FIXED EQUIPMENT:** equipment fastened in place or connected by permanent wiring methods.

**HOT TAP:** a procedure used in the repair, maintenance and service activities which 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:** the 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 as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

**NORMAL PRODUCTION OPERATIONS:** the utilization of a machine or equipment to perform its intended production function.
OTHER EMPLOYEES: those employees whose work operations are or may be in an area where energy control procedures may be utilized.

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

SETTING UP: any work performed to prepare a machine or equipment to perform its normal production operation.

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, which 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.

APPLICABILITY

The provisions of this program apply when there is a possibility of injury due to the unexpected energization, start up or release of stored energy while constructing, installing, setting up, adjusting, inspecting, modifying, maintaining or servicing fixed machinery. Stored energy in an electro/mechanical system can be found in rotating flywheels, weights and counter-weights, hydraulic and pneumatic pressure, thermal and chemical energy, springs and unbalanced loads.

This program does not apply to:

a. work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by unplugging the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.

b. hot tap operations provided:
   1. continuity of service is essential.
   2. shut down of the system is impractical.
   3. documented procedures are followed and special equipment is used which will provide proven effective protection for employees.
PROCEDURES FOR CONTROL OF HAZARDOUS ENERGY

The general procedures for lockout, tagout, or lockout and tagout are quite similar. Below are instructions which apply to all control of hazardous energy procedures. Exceptions and specific requirements for lockout without tagout; tagout without lockout; and lockout used in conjunction with tagout are noted in their own subchapters.

GENERAL PROCEDURES

Note: Throughout this section, lockout/tagout refers to lockout without tagout; tagout without lockout; and lockout used in conjunction with tagout.

PURPOSE AND SCOPE: effective hazardous energy control procedures will protect employees during machine and equipment servicing and maintenance where the unexpected energization, start up or release of stored energy could occur and cause injury. Further, effective hazardous energy control procedures will protect employees when working near or on exposed deenergized electrical conductors and parts of electrical equipment. Hazards being guarded against include, but are not limited to, being cut, struck, caught, crushed, thrown, mangled, and/or shocked by live electrical circuits caused by the unexpected release of hazardous energy. One (1) piece of machinery can have more than one (1) real or potential source of hazardous energy that must be guarded against.

These procedures for the control of hazardous energy will ensure that machines and equipment are isolated properly from hazardous or potentially hazardous energy sources during servicing and maintenance and properly protected from reenergization as required by 29 CFR 1910.147.

While any employee is exposed to contact with parts of fixed electrical equipment or circuits which have been deenergized, the circuits energizing the parts will be locked out and/or tagged in accordance with the requirements of 29 CFR 1910.333 (b)(2).

PREPARATION FOR SHUTDOWN: prior to lockout/tagout, all energy isolating devices must be located which apply to the specific machine in question. There may be more than one energy source. While electrical is most common, other sources could be: hydraulic, pneumatic, chemical, thermal, rotational, spring, etc.. All must be isolated. The Energy Source Evaluation Form and the Control Procedures Form must be completed prior to isolation. These forms must be completed by an authorized employee. Once completed, it is recommended that these evaluations remain on file for future use. Any changes in design or energy hazard will require an update of these forms. Not only the energy source hazard, but its magnitude must be recorded on the Energy Source Evaluation Form. Example: Energy Source: Pneumatic. Magnitude: 125 p.s.i..
Before an authorized or affected employee turns off the piece of equipment, the authorized employee must have knowledge of the type and magnitude of the energy to be controlled and the methods or means to control the energy. Refer to the Control Procedures Form for specific energy control procedures.

**MACHINE OR EQUIPMENT SHUTDOWN:** before lockout/tagout controls are applied, all affected employees will be notified and given the reasons for the lockout/tagout.

If a machine or equipment is operating, it will be shut down by normal stopping procedures by either the affected or authorized employee.

**LOCKOUT/TAGOUT DEVICE APPLICATION:** authorized employees will lockout/tagout the energy isolating devices with assigned individual locks. Locks or other lockout/tagout devices will be color coded red, white, and black and be further identified with our company name. Locks and other lockout/tagout devices will be used for no other purpose. Lockout/tagout devices will indicate the identity [name] of the authorized employee applying the device.

Lockout/tagout devices will be durable and capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected. They shall be standardized in color [red, white, & black] and be substantial enough to prevent their removal without the use of excessive force or unusual techniques such as bolt cutters or other metal cutting tools. Key or combination locks are acceptable. Tagout device attachments shall be non-reusable, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds. The tagout attachment will have the general design and basic characteristics of, at a minimum, a one-piece, all environmental tolerant nylon cable tie.

Lockout/tagout devices will be applied so that they will hold the energy isolating devices in a "Neutral" or "Off" position. Protective materials and hardware shall be provided for isolating, securing or blocking of machines or equipment from energy sources. These protective materials and hardware include, but are not limited to, locks, tag chains, wedges, key blocks, adapter pins, self-locking fasteners, etc..

**RELEASE OF STORED ENERGY:** all stored energy will be blocked or dissipated. Types of stored energy include flywheels, springs, hydraulic or pneumatic systems, etc.. Should there be a possibility of reaccumulation of stored energy, verification of isolation must be continued until servicing is complete.

**VERIFICATION OF ISOLATION:** prior to starting work on machines or equipment that have been locked out and after ensuring that no personnel are exposed to the release of hazardous energy, the authorized employee
shall operate the normal operating controls to verify that the machine or equipment has been deenergized and that it will not operate.

After the above test, the operating controls will be returned to the "NEUTRAL" or "OFF" position.

At this point, the machine/equipment is now locked out. The work may proceed.

**RELEASE FROM LOCKOUT/TAGOUT:** Before the lockout/tagout devices are removed and energy is restored to the machine or equipment, the following procedures will be implemented to ensure the following:

a. the work area will be inspected to ensure that nonessential items have been removed and to ensure that the machine or equipment components are operationally intact.

b. the work area will be checked to ensure that all employees have been safely positioned or removed.

After the lockout/tagout devices have been removed and before the machine or equipment is started, affected employees will be notified that the lockout/tagout devices have been removed.

Each lockout/tagout device must be removed by the authorized employee who applied it.

**Note:** The one exception to the above is when the authorized employee who applied the lockout/tagout device is not available to remove it. That device may be removed under the direction of the competent person provided that the below specific procedures are followed:

a. verification by the competent person that the authorized employee who applied the lockout/tagout device is not within the facility.

b. all reasonable efforts will be made to contact the authorized employee to inform him/her that his/her lockout/tagout device has been removed.

c. ensuring that the Authorized employee has been informed of the above before resuming work.

The person who removes the device must be an authorized employee. Each type of control of hazardous energy procedure shall be documented using the Energy Source Evaluation Form and the Control Procedures Form except when all the below listed conditions exist:

a. The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees; and

b. The machine or equipment has a single energy source which can be readily identified and isolated; and

c. The isolation and locking out of that energy source will completely deenergize and deactivate the machine or equipment; and
d. The machine or equipment is isolated from that energy source and locked out during servicing and maintenance; and

e. A single lockout device is under the exclusive control of the authorized employee performing the servicing and maintenance; and

f. The servicing and maintenance does not create hazards for other employees; and

g. No accidents have occurred involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

The above exceptions apply to documentation only. Whether using lockout, tagout, or lockout and tagout, the general procedures are the same.

DEVICE SELECTION CRITERIA
FOR NON-ELECTRICAL HAZARDOUS ENERGY

A lock, color coded with either paint or tape and identifiable with the name of the employee who applied it, shall be placed on each energy isolating device where feasible. Lockout is the primary means of non-electrical hazardous energy isolation and, where possible, will always be used in lieu of tagout. In the event a machine or piece of equipment will not accept a lock on its energy isolating device(s), it will be modified to do so whenever it is replaced, renovated, or undergoes a major repair.

There are occasions where lockout cannot be accomplished and in those instances, tagout alone may be used as long as it provides full employee protection as explained below:

a. A tag may be used without a lock if a lock cannot be physically applied. This procedure must be supplemented with at least one additional safety measure providing a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include, but are not limited to the:

1. removal of an isolating circuit element.
2. blocking of a controlling switch.
3. opening of an extra disconnecting device.

Note: A tag may be used without a lock if it can be demonstrated that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock. This demonstration must be documented. This is an allowable, but not preferred, option.
All affected persons must be fully aware of the fact that tags used in tagout procedures are essentially a warning device affixed to energy isolating devices. Unlike locks, tags do not physically restrain. Tags will:

a. be capable of withstanding the environment to which they have been exposed for the maximum period of time that exposure is expected.

b. be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.

c. be standardized in at least one (1) of the following:
   1. color.
   2. shape.
   3. size.

d. be standardized in print and format.

e. in their method of attachment, be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment methods and means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum strength of no less than 50 pounds and have the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie.

f. indicate the identity of the employee applying the tag.

g. warn against the hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: Do Not Start; Do Not Open; Do Not Close; Do Not Operate, etc..

**CONTROL OF ELECTRICAL HAZARDOUS ENERGY ON FIXED EQUIPMENT**

Electrical hazards associated with fixed equipment present a special hazard class and, in each case, a determination must be made whether lockout, tagout, or lockout used in conjunction with tagout is to be utilized.

The guidelines for this determination are found in 29 CFR 1910.333. 29 CFR 1910.333 makes no mention of maintenance or servicing. Its provisions apply to any possible exposure to contact with fixed electrical equipment or circuits which have been deenergized. Live parts that operate at less than 50 volts to ground need not be deenergized if there will be no increased exposure to electrical burns or to explosion due to electric arcs. Fixed equipment is defined as: "equipment fastened in place or connected by permanent wiring methods."
Before circuits and/or equipment are deenergized, safe procedures will be determined before the fact. At a minimum:

a. the circuits and equipment to be deenergized will be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for deenergizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

b. stored electric energy which might endanger personnel shall be released. Capacitors shall be discharged and high capacitance elements shall be short-circuited and grounded if the stored electric energy might endanger personnel. Be aware of the shock potential of capacitors and associated equipment. If they are handled in meeting this requirement (discharging), they shall be treated as energized until they have been totally discharged.

c. stored non-electrical energy in devices that could reenergize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

**DEVICE SELECTION CRITERIA FOR ELECTRICAL HAZARDOUS ENERGY**

**NOTE:** When dealing with safety related work practices to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, a Qualified Person is defined as one who: "is permitted to work on or near exposed energized parts" and who, at a minimum, has been trained in and is familiar with:

a. the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, and

b. the skills and techniques necessary to determine the nominal voltage of exposed live parts, and

c. the clearance distances specified in §1910.333(c) and the corresponding voltages to which the qualified person will be exposed.

A lock and tag shall be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed except:

a. a tag may be used without a lock if it can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock. This demonstration must be documented. This is an allowable, but not preferred, option. A tag may also be used without a lock if a lock cannot be physically applied. Under either of the above two circumstances that a tag is used without a lock, the procedures must be supplemented with at least one additional safety
measure that provides a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include:

1. the removal of an isolating circuit element.
2. the blocking of a controlling switch.
3. the opening of an extra disconnecting device.

b. A lock may be used without a tag if, and only if:

1. only one circuit or piece of equipment is being deenergized, and
2. the lockout period does not extend beyond the work shift, and
3. employees exposed to the hazards associated with reenergizing the circuit are familiar with this procedure -- utilizing a lock without a tag.

After electrical hazards are locked out, tagged out, or locked and tagged out, a Qualified Person must verify deenergization before work can proceed on deenergized equipment. Verification by the Qualified Person will include:

a. operation of the equipment operating controls or otherwise verify that the equipment cannot be restarted.

b. using test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and verifying that the circuit elements and equipment parts are deenergized.

c. using test equipment to determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been deenergized and presumed to be safe.

Note: If the circuit to be tested is over 600 volts, the test equipment shall be checked for proper operation immediately before and immediately after this test.

REENERGIZING ELECTRICAL EQUIPMENT

The process of reenergizing electrical equipment, even temporarily, must be accomplished as noted below in the order listed:

a. A Qualified Person shall conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuit and equipment can be safely energized.

b. Employees exposed to the hazards associated with reenergizing the circuit or equipment shall be warned to stay clear of circuits and equipment.

c. Each lock and tag will be removed by the authorized employee (who must also be a Qualified Person when dealing with electrical hazards).
d. If the person who applied the lock or tag is absent from the workplace, the competent person may designate another Qualified Person to remove the lock and/or tag provided that:

1. it is assured that the Authorized Person who applied the lock or tag is not available at the workplace, and
2. it is assured that the Authorized Person who applied the lock and/or tag is aware that the lock and/or tag has been removed before he/she resumes work at the workplace.

e. A visual determination shall be accomplished to ensure all employees are clear of the circuits energized.

SPECIAL CONSIDERATIONS

Whether using lockout, tagout, or lockout and tagout procedures, the below special considerations apply.

There may be special circumstances where, during a lockout procedure, a machine or equipment must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine or equipment or components thereof. The below procedures will be followed to accomplish this task:

a. The machine or equipment will be cleared of tools and nonessential items and, if it is to be operated, all components will be operationally intact.

b. The work area will be checked to ensure that all employees have been safely positioned or removed.

c. The standard release from lockout procedures will be implemented.

d. The machine or equipment will be energized and testing or positioning will proceed.

e. After testing or positioning, deenergize all systems and reapply the energy control device following standard procedures.

GROUP LOCKOUT AND/OR TAGOUT PROCEDURES

In the event that servicing or maintenance is performed by more than one group (craft, trade, department, for example) the following shall be implemented to ensure that the group of employees are afforded a level of protection equal to that provided by a personal lockout or tagout device:

a. One person will be designated as Group Leader and that person will have overall responsibility for a set number of employees working under his/her control.

b. The Group Leader will have exclusive control of a Master Group Lockout and/or Group Tagout device.
c. The Group Leader will ascertain the exposure status of individual group members with regard to the lockout and/or tagout of the machine or equipment.

d. Each authorized employee within the group shall affix his personal lockout/tagout device to a group lockout box or comparable device before beginning work and shall remove his/her personal lockout/tagout device upon completion of work.

If there is more than one group of personnel working a machine or piece of equipment, an employee shall be designated to coordinate and take responsibility for all the individual groups.

**SHIFT AND/OR PERSONNEL CHANGES**

In the event that Energy Control Procedures must extend into the next shift or if there are individual or group personnel changes, the procedures listed below will be implemented in the order listed:

a. If the energy isolation device **will** accept two lockout/tagout devices:

1. The authorized employee coming on duty will place his personalized lockout/tagout device in place, and

2. After the above step has been completed, the employee going off duty will remove his lockout/tagout device.

b. If the energy isolation device **will not** accept two lockout/tagout devices, both the incoming and outgoing authorized employees will:

1. ensure that all affected employees are aware that a lockout/tagout change is about to take place, then

2. ensure that the area is clear of tools and affected employees, then

3. the outgoing authorized employee will remove his lockout/tagout devices and immediately the incoming authorized employee will install his lockout/tagout devices, and

4. the incoming authorized employee will inform the affected employees that the change has been completed.

Following the above procedure will ensure the energy isolating device was never disturbed and that complete control of hazardous energy was maintained. The above procedure provides for continuing protection for both incoming and outgoing employees from the potential hazards of the unexpected release of hazardous energy and an orderly transfer of lockout/tagout responsibilities.
PERIODIC INSPECTIONS

The Safety Director will conduct periodic inspections of this Control of Hazardous Energy Program at least annually to ensure that the procedures and requirements of 29 CFR 1910.147 are being followed. The information gleaned from the periodic inspection will be used to correct any deviations or inadequacies identified. These inspections will be documented and certification will be prepared to identify the machine or equipment on which an energy control procedure was utilized, the date of the inspection, the employees included in the inspection, and the name of the person performing the inspection. It should be noted that all periodic inspections shall be conducted by a competent person designated by the Safety Director other than the person who actually used the energy control procedure being inspected.

TRAINING

Control of Hazardous Energy training will be documented giving the name of the trainer, the name of the trainee, and the date. Authorized employees must be familiar with this program and will receive adequate training in the following areas: recognition of all applicable hazardous energy sources, types and magnitude of energy sources, methods and means necessary for energy isolation and control, and changes to our program.

All affected employees will be instructed in the purpose and use of the energy control procedures. Additionally, training will be provided for any other employee whose work operations are or may be in an area where energy control procedures are being utilized. Training will include tagout systems and the limitations of a tag (tags are warning devices and do not provide physical restraint). Tags should not be removed without authorization and tags are never to be ignored or defeated in any way.

Retraining will be conducted when a periodic inspection reveals inadequacy in an authorized employee’s knowledge; there has been a deviation from established policy or procedure; or our procedures are changed.

Additionally, retraining will be given when there is a change in job assignments, machines, energy control procedures or a new hazard is introduced.

All training and retraining will be documented, signed and certified.

All training will be interactive with applicable standards readily accessible.
**ENERGY SOURCE EVALUATION FORM**

**MACHINE OR EQUIPMENT NAME:** __________________ LOCATION: ____________________________

**MODEL:** _______________ **SERIAL NUMBER:** __________________ **PROCEDURE NUMBER:** _______

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<tr>
<th>ENERGY SOURCE</th>
<th>MAGNITUDE</th>
<th>LOCATION OF ISOLATING DEVICE</th>
<th>MEANS OF ISOLATION</th>
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[NOTE: This form must be completed by an Authorized Employee.]

**EVALUATION CONDUCTED BY:**

**NAME:** ___________________________________ **DATE:** ___________________________

(MUST BE AN AUTHORIZED EMPLOYEE)
These Procedures must be accomplished in the order listed.

1. **PREPARATION FOR SHUTDOWN:** The Authorized Employee will be totally familiar with the first page of this form. The Affected Employees will be notified that the piece of equipment is about to be shutdown and locked out.

   Specific Instructions: ____________________________________________________________
   ____________________________________________________________

2. **SHUTDOWN:** Affected Employees will be given the reason(s) for the lockout/tagout procedures. If the machine is running, it will be turned off using normal procedures. It may be shutdown by either the Authorized Employee or the Affected Employee.

   Specific Instructions: ____________________________________________________________
   ____________________________________________________________

3. **MACHINE ISOLATION:** All real or potential hazardous energy listed on the first page of this form will be isolated from their source. The location of the isolation devices and the methods used are also found on the first page of the form.

   Specific Instructions: ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

4. **LOCKOUT/TAGOUT DEVICE APPLICATION:** Authorized Employees will (circle appropriate procedure): [lockout]  [tagout]  [lockout and tagout] the energy isolating devices. Lock and tag devices will be color coded and they will contain the identity of the Authorized Employee actually performing this procedure. The lockout/tagout devices will be applied so that they hold the energy isolating device in a "Neutral" or "Off" position.

   Specific Instructions: ____________________________________________________________
   ____________________________________________________________

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4a. If a tag is used in lieu of a lock because the energy isolating device will not accept a lock, the following additional safety precautions will be taken [29 CFR 1910.147 c(3)(ii) & 29 CFR 1910.333(2)(b)(iii)(D)]:
_____________________________________________________________________________________________
_____________________________________________________________________________________________
Specific Instructions: ____________________________________________________________________________
_____________________________________________________________________________________________

5. RELEASE OF STORED ENERGY: All stored energy will be blocked or dissipated. Reference page one (1) of this form to ensure real or potential stored energy in a system is identified and controlled.
Specific Instructions: ____________________________________________________________________________
_____________________________________________________________________________________________

6. VERIFICATION OF ISOLATION: Prior to starting work on the piece of equipment and after ensuring that no personnel are exposed to the release of hazardous energy, the Authorized Employee shall operate the controls to verify that there has been deenergization and that the equipment will not operate. After this verification, the operating controls will be returned to the "Neutral" or "Off" position.
Specific Instructions: ____________________________________________________________________________
_____________________________________________________________________________________________

7. RELEASE FROM LOCKOUT/TAGOUT: The Authorized Employee shall 1.) ensure that all Employees have been safely positioned or removed and the work area will be cleared of non-essential items, 2.) ensure the equipment or equipment components are operationally intact; 3.) ensure machine guards have been replaced; 4.) inform the Affected Employees that lockout and or tagout devices are going to be removed; 5.) remove the lockout and or tagout devices including all energy restraints such as blocks; and 6.) inform the Affected Employees that the equipment is ready for operation.
Specific Instructions: ____________________________________________________________________________
_____________________________________________________________________________________________
GROUP LEADER DOCUMENTATION

One (1) person shall be designated as Group Leader. The Group Leader will have overall responsibility for a set number of employees.

The Group Leader shall have exclusive control of a Master (Group) Lockout and/or Group Tagout device.

The Group Leader will ascertain the exposure status of individual group members with regard to the lockout and/or tagout of the machine or equipment.

Each individual authorized employee within the group shall affix his personal lockout/tagout device to a group lockout box or comparable device before beginning work and shall remove his/her personal lockout/tagout device upon completion of work.

If there is more than one group of personnel working on a machine or piece of equipment, an employee shall be designated to coordinate and take responsibility for all the individual groups.

NAME OF DESIGNATED GROUP LEADER: ______________________________________

EQUIPMENT REQUIRING CONTROL OF HAZARDOUS ENERGY

| NAME: _________________________ | SERIAL NUMBER: _________________________ |
| DATE: _________________________ | MODEL NUMBER: _________________________ |

AUTHORIZED (QUALIFIED) EMPLOYEES OF THE GROUP

<table>
<thead>
<tr>
<th>(Name)</th>
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Robert Evans
Program Administrator

SIGNATURE OF GROUP LEADER: ___________________________________________
PERIODIC INSPECTION DOCUMENTATION

EQUIPMENT ON WHICH CONTROL OF HAZARDOUS ENERGY PROCEDURES WERE UTILIZED

NAME: _________________________      SERIAL NUMBER: _________________________
DATE: _________________________       MODEL NUMBER: _________________________

WERE ALL THE CORRECT PROCEDURES CORRECTLY APPLIED?  YES  NO

[If yes, sign the form and return to the Safety Director.]
[If no, complete the below section, sign the form and return to the Safety Director.]

EMPLOYEES PERFORMING THE PROCEDURE

(Name) ___________________________ (Signature)

(Name) ___________________________ (Signature)

(Name) ___________________________ (Signature)

(Name) ___________________________ (Signature)

(Name) ___________________________ (Signature)

(Name) ___________________________ (Signature)

IMPROPER PROCEDURES NOTED
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

(SIGNATURE OF INSPECTOR) ____________________ (Date) ____________________

[NOTE: If improper procedures are noted, the above employees must have retraining or the Program must be modified.]