



Document #: HS-LOTO1

Revision#: 2

Revision Date: May 1, 2019

Approved By:

**“Health and Safety Standard”**

**“Lock Out Tag Out Policy”**

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**PURPOSE:**

The purpose of this procedure is to provide safe standard operating instructions for workers; and to prevent injuries from inadvertent start-up, energizing, or release of stored energy during the cleaning, oiling, adjusting, servicing, repairing, maintenance, or setup of equipment, machinery, or processes.

**SCOPE:**

Applies to all workers (employees, associates and contractors).

**HAZARDS:**

Injuries caused by uncontrolled energy can occur when equipment is not locked out properly. These hazards include but are not limited to; exposure to high voltage electricity resulting in electrocution, exposure to hot surfaces resulting in burns, suspended loads or loads under hydraulic control could result in crushing.

**PERSONAL PROTECTIVE EQUIPMENT:**

Standard PPE as specified by Horizon Plastics International.

**POLICIES AND PROCEDURES:**

**THE SEVEN-STEP PROCEDURE:**

Proper Lock-out/Tag-out consists of the following seven steps:

1. Preparing for Shutdown
2. Shutting Down Equipment
3. Isolating Equipment
4. Applying Lock-out / Tag-out Devices
5. Controlling Stored Energy
6. Verifying Isolation of Equipment [It is now safe to complete the work]
7. Lock Removal

**Step 1: Preparing for Shutdown**

Workers authorized to lock out equipment shall identify the type and magnitude of the energy to be controlled, all the hazards (including stored energy) and the method or means of controlling the energy.

An authorized worker is a person who has received training and signed off as completing and understanding the Horizon Plastics LOTO policy, and is either a licensed trade’s person or a non-licensed person who has received equipment specific training and is aware of the energy sources.

The person locking out shall also notify all affected persons in the area that the equipment is to be shut down and locked-out. When preparing for shutdown alert everyone in the vicinity that you are about to perform Lock-Out Tag-Out and let them know which machines are going to be affected.

Before locking out you must do the following:

- Identify the kinds of energy sources you are dealing with. For example:
  - a. Electrical (including Static and Stored in Batteries and Capacitors)
  - b. Hydraulic (Oil and Water)
  - c. Compressed Gas (Air, Nitrogen, Welding Gases)
  - d. Thermal
  - e. Chemical



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- f. Mechanical (Suspended Weight, Springs, Rotating Flywheel)
- g. Radiation
- Identify the hazards involved.
- Determine how the hazards should be controlled.
- Check and review the machine specific procedures.

## Step 2: Shutting Down Equipment

Use the normal stopping procedure for the equipment you are locking out. This will probably mean turning a switch off or pressing a “Stop” button.

## Step 3: Isolating Equipment

The equipment shall be isolated by following established isolating procedures. Where specific procedures exist for specified equipment, those procedures must also be followed.

- Carefully isolate the system from every source that feeds it.
- Close all valves.
- De-energize and disconnect circuit breakers and the main disconnect switch.
- Disconnect any auxiliary power such as a second service, steam, heat, and hydraulic or pneumatic systems.

**NOTE:** Removing fuses is not a substitute for Lockout. Always **Lockout** the source.

## Step 4: Applying Lockout / Tag-out Devices

Locks shall be applied at each of the isolating devices. Each worker is responsible for attaching his or her own personal locks, without exception.

- Locking out and tagging all energy-isolating devices involved will prevent anyone restoring the flow of energy.
- All disconnect switches, valves, and other energy-isolating devices must be locked out.

## Step 5: Release or Block all Stored Energy

Once the necessary lockout devices have been applied, all potential hazardous stored or residual energy must be relieved, blocked, bled, restrained, or rendered safe by the authorized individuals involved in the work. **Each worker** involved must check to ensure this has been done.

Even though hazardous energy may be locked and tagged, injury can still occur by the stored energy in the system or equipment. Be sure to:

- Relieve, disconnect, or restrain any remaining hazardous energy.
- Check that all moving parts have stopped moving, and have been secured to prevent movement.
- Relieve stored pressure.
- Blank pipe flanges and cap open lines.
- Discharge electrical capacitors.
- Block or support elevated equipment.
- Be aware of any heat remaining in equipment.



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### Step 6: Verify Equipment Isolation

After isolation and de-energization and prior to starting work, ensure a test is performed of all start buttons or other activating controls on the equipment or by potential checking of the electrical supplies to make sure the equipment has been de-energized. Be sure to return all controls to the off or neutral position after trying to start.

Verifying simply means double-checking all your steps. Remember to:

- Warn workers and make sure everyone is clear of the lockout area. Test to make sure the right system(s) have been locked out and cannot be operated. Press all start buttons or activating controls, and then return them to the “off” position – this will prevent the equipment from starting by itself when energy is restored.

### Step 7: Lock Removal

Prior to restoring energy, check that:

- All temporary energy-isolating devices have been removed.
- The equipment is operationally intact.
- All guards have been reinstalled.
- All tools, equipment, and materials have been removed.

Once complete an authorized worker must check all other workers are clear and informed that energy will be restored. Locks used to isolate the equipment can then be removed by the workers involved and the energy restored.

### SPECIAL CONSIDERATIONS:

1. No changes, adjustments, or repairs that require shutting down the equipment will be made without the permission of the Supervisor and notification of the operator.
2. If more than one worker is working on a machine, a lockout bar or hasp must be attached to the isolation device. Each worker must then apply his or her personal lock and tag to this bar. When work is completed, the respective workers should then remove their own locks and tags. The machine can only be turned back on after the last lock has been removed, the work area has been cleared, and all affected workers are aware of reactivation.
3. When a worker is reassigned from a job which is incomplete, and the equipment must remain locked out, the worker involved will apply a ‘shop lock’, hasp, and tag.
4. If Maintenance personnel are working on a piece of equipment and the work will take more than 2 hours to complete, a shop lock, hasp, and tag must be applied and the Shop Lock log book must be filled out.
5. Any equipment that is not in a “ready to run” state must be locked out with a shop lock, hasp, and tag and the Shop Lock logbook must be filled out.
6. Shop locks are available in the Maintenance department, and must only be used for this purpose. A logbook must be kept to identify where each lock is used, the purpose of the lock, and the person applying the lock.
7. Shop locks can only be removed by Maintenance personnel, Maintenance Manager or Engineering Manager.
8. No attempt will be made by anyone to in anyway defeat the purpose of the lockout devices.
9. If a worker leaves a lock(s) on a device and cannot be located, the Supervisor shall have the lock removed only after following the Lock Removal Procedure for An unavailable Worker (see below).
10. When requested by operating personnel, Maintenance personnel shall perform electrical disconnects. The authorized personnel assigned to perform the work must go to the machine to observe the disconnection and attach his or her personal lock to the energy-isolating device.
11. When locking out electrical disconnects, a load verification test must be performed to ensure the correct isolating device has been used.
12. In no case shall anyone remove another worker’s lockout device except a Supervisor authorized as in item 9 above.
13. Locks used for the lockout process shall not be used for any other purpose.



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14. Lockout tags must accompany all locks. The tags must be used to identify the person applying the lock, the reason for applying the lock, the date the lock was installed. Tags used for lockout must not be used for any other purpose.
15. Contractors shall be trained in our lockout procedures and are required to follow them.

### **LOCK REMOVAL PROCEDURE FOR AN UNAVAILABLE WORKER:**

In the event that a worker has left their lock on a machine and it is required that the machine be run, the following procedure must be followed before the lock may be removed.

1. The Supervisor responsible for the worker or the shift Supervisor on duty will attempt to contact the worker.
  - If the worker is on shift, a search of the premises is to be conducted.
  - If the worker is off shift, the Supervisor will attempt to contact the worker at home, either by phone or in person.
  - If the worker is contacted at home, the worker shall return to the plant and remove their lock.
  - If it is impossible for the worker to return to the plant, the worker may give verbal approval for the lock to be removed.
  - This verbal approval will consist of the worker speaking on the phone to supervisor and to the Maintenance personnel who will be removing the lock indicating the reason for the lockout and that with certain precautions it is safe for the lock to be removed.
2. If the Supervisor cannot make contact with the worker, a lock removal team will be formed.
  - This team will include the employee Certified Member of the JH + SC, one person from Maintenance and the shift Supervisor.
  - If a Certified Member is not available, a regular member of the JH+SC or an experienced machine operator may be used as an alternate.
  - A thorough inspection of the machine is to be made by all parties of the team.
  - This inspection will include examination of the lockout tag and Shop Lock logbook so that the reason for the lockout is known.
  - If the inspection of the machine indicates it is safe to run the machine, the lock may be removed.
  - If the inspection of the machine indicates that the machine is not safe to run, the Certified Member of the JH+SC, or an alternate will install a shop lock, hasp, and tag, and fill out the Shop Lock logbook. The machine will not be run until the hazards have been removed or repaired.
3. A Lock Removal Investigation Report is to be prepared and is to be completed and signed by all parties on the team within 24 hours.
  - Copies of the report are to be given to all members of the team, the Production Manager, the Maintenance Manager, the chief steward, union chairperson and the worker who left their lock on the machine.

### **ELECTRICAL HOT WORK (Only to be performed by licensed Electricians):**

(Ontario Regulation 851, section 42)

1. These procedures only apply if it is not practical to disconnect electrical equipment from the power supply before working on the equipment.
2. The worker shall use rubber gloves, mats, shields and other protective equipment and procedures adequate to ensure protection from electrical shock and burns while performing the work.



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3. The area near the equipment will be secured with caution tape, a spotter, or other measures to ensure other employees are not exposed to any hazards.
4. If the equipment is operating at a nominal voltage of 300 volts or more, a suitably equipped competent person who is able to recognize the hazards and perform rescue operations, including artificial respiration, shall be available and able to see the worker who is performing the work.
5. Sentence (2) above does not apply to equipment testing and trouble-shooting operations (Ontario Regulation 630/94, section 1).
6. Company employees shall not work on electrical equipment rated at more than 750 volts.

### **ROLES AND RESPONSIBILITIES:**

#### **Employer:**

- Take every precaution reasonable in the circumstances for the protection of the worker.

#### **Manager / Supervisor:**

1. Ensure that the worker works in the manner and with the protective devices, measures, and procedures required by the Occupational Health and Safety Act.
2. Ensure that the worker uses or wears the equipment, protective devices, or clothing that the employer requires to be used or worn.
3. Take every precaution reasonable in the circumstances for the protection of a worker.
4. Provide training and equipment as required.
5. Forward copies of training records to the Human Resources Manager.
6. Enforce the requirements of this SOP at all times.
7. Periodically audit compliance.

#### **Employee:**

1. Work in compliance with the requirements of the Occupational Health and Safety Act, the regulations and this standard.
2. Use or wear the equipment, protective devices or clothing that the employer requires.
3. Report to the Team Leader immediately the absence of or defect in any equipment or protective device of which the worker is aware.
4. Report to the Team Leader immediately any contravention of the Occupational Health and Safety Act and the regulations, or the existence of any hazard of which he or she knows.

#### **Human Resources: (If required)**

File and maintain training records.

#### **Joint Health and Safety Committee:**

Periodically audit compliance to this standard.

#### **TRAINING AND IMPLEMENTATION:**

There will be annual training of this procedure.