

## VA 11.09.04 Lockout/Tagout

### 1 Objective

Lockout/tagout (LOTO) is an essential safety-regulation for the work on or around equipment with the goal of reducing any hazards to employees and ensuring that no one is injured while doing this work. It is providing a standard procedure for the control of hazardous energy sources through the locking and tagging of equipment.

### 2 Scope

This standard applies to all companies of Continental AG and to their controlling interests and non-controlling interests under the management control of Continental AG. The scope of application applies to all divisions and locations.

### 3 Validity

This standard procedure is valid from the day on which it is published until the document is declared invalid.

### 4 Definition of terms

#### LOTO

Abbreviation for lockout/tagout

#### 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.

#### Stored energy

Equipment with stored energy, i.e.: capacitors, springs, elevated parts, rotating flywheels, hydraulic and pneumatic systems, trapped pressure from air, gas, steam, or liquid ion piping systems

#### Tagout

The placement of a tagout device on an energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout-device is removed by the employee who placed the tag.

### 5 Requirements and responsibilities

The following minimum requirements must be met in addition to regional/national statutory regulations. The site manager is responsible that

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the requirements of this standard are implemented and followed no later than 3 years after its publication.

### 5.1 Application range

Lockout/Tagout is required, whenever...

- cleaning, servicing or maintenance is being performed on or around any equipment where injury could result from unexpected start-up or the release of stored energy
- new equipment or machinery is being installed
- a guard or other safety device must be bypassed or removed to work with equipment or machinery
- whenever an employee must place any part of his/her body in a danger zone (where it could be caught by released energy and/or moving machinery, i.e. for small/short trouble-shooting activities).

Normal production operations and tool changes on machines are not covered by this procedure.

### 5.2 Isolation of all energy sources

Prior to performing any activities mentioned in topic 5.1 the machine and/or equipment should be rendered inoperative and isolated from all energy sources.

- Employees who are conducting lockout/tagout-relevant activities must get an annual safety training related to LOTO-procedures
- The employees who are conducting LOTO-relevant activities must ensure that:
  - o machine's energy-sources are shut down
  - o stored/saved machine energy is released
  - o LOTO-devices are attached to each hazardous energy shutoff point. If the LOTO-relevant activity is performed by more than 1 person every single employee has to attach his/her own lockout/tagout device (i.e.:3 employees working on a machine with 3 lockout points -> in total: 9 lockout-devices have to be attached)
  - o parts that could fall because of gravity are blocked or braced.

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### 5.3 Preparing for start-up/removing LOTO-devices

Before machines start-up again, following points have to be ensured:

- all equipment components are fully assembled and operational
- all safety guards/-devices are in place and are operational
- all tooling and tools are removed from the equipment and work area
- all pipes & hoses are reconnected
- work area is cleared of all personnel
- affected personnel has been notified.

Lockout/tagout-devices must then be removed by the employee who placed them.

For the case an employee is not available the site has to define who is allowed to remove the LOTO-devices.

### 5.4 Specific Devices

- LOTO-devices utilized for energy control must be singularly identified, must be standardized throughout the facility, must be the only devices used for energy control purposes, and must not be used for any other purpose.
- Tagout-devices must indicate the identity of the employee applying the devices.
- LOTO-devices must be environmental tolerant and substantial enough to prevent inadvertent or accidental removal.
- All new or relocated equipment have to be equipped with provisions to permit lockout of potentially hazardous energy sources.

### 5.5 Special Circumstances

#### Exceptions

The deviation from this standard is permitted only in well-founded exceptional cases (i.e. when the energy-shutdown affects a complete machine although the LOTO-relevant activities are performed just on a small part and the rest of the machine could still run). For which machines LOTO has not to be fulfilled completely, has to be decided in the risk assessment, additional precautionary

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actions are necessary. These actions must also be determined in the risk assessment.

Actions that have to be implemented are:

- tagout-devices on the shut-down points of the machinery
- machinery must be under the direct supervision of the employee(s) who are conducting the service/maintenance work
- if machinery is not under supervision at all time: LOTO fully applies

### Shift changes

If activities where LOTO is necessary extend beyond one shift: There must be no interruption in the lockout/tagout-protection.

### Temporary re-activation

If the machinery must be temporarily re-activated (for positioning, testing, etc.) all start-up and lockout procedures must be followed.

### Contractors

Contractors must be informed about the lockout procedures, and must be required to follow them. They have to be trained in LOTO and must provide locks and tags as well.

## 5.6 Documentation/work instruction

### Site instruction

Every site has to establish a general procedure how the requirements from this standard should be implemented in detail and which persons are responsible.

### Machine procedures

Machine procedures have to be created und regularly updated to detail the specific steps for shutting down, isolating, blocking and securing equipment and how to check that hazardous energy is released.

These procedures should include necessary steps for the placement, removal and transfer of lockout/tagout devices.

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**5.7 Refitting of machinery**

If there is no possibility to shutdown an energy source on a machine or if there is only a centralized shutdown-point for a number of machinery, machine-specific shutdown-points have to be fitted.

**6 Applicable documents**

The following documents are assigned to the process instruction VA 11.09.04

- AH 11.09.Schmidt04 Sample formsheet machine-procedure

**7 Revision history**

Revision No.	Date	Reason for revision	Issued by	Approved
00	04.10.2012	Original entry	G. Schmidt	Dr. Spendlin

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