

Standard Operating Guideline	
SOG Name:	Lock-Out / Tag-Out
SOG Number:	200.4
Standard:	TBD
Guideline Owner:	Non-Emergency Operations
Implementation Date:	March 8, 2003
Date of Last Revision:	May 21, 2021
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PURPOSE:

The policy of the Dothan Fire Department is to lock-out and tag-out all sources of **Hazardous Energy** which could expose personnel to injury during emergency and non-emergency operations (**Lockout and Tag Out** procedures do not apply to normal residential utilities, except where unusual circumstances pose an extreme hazard to personnel.)

A. GENERAL

SECTION 1

Lock-out is a padlock placed on a power source with a lock-out device that physically holds an energy control point such as a switch, lever, or valve handle in the off position and makes it impossible to operate the control point.

SECTION 2

Tag Out is a written warning - notifying coworkers not to operate a switch, lever, or valve that could release hazardous energy or set a machine in motion. Though the tag acts as a warning device, it does not prevent someone from releasing the energy.

SECTION 3

Lock-outs should be used whenever personnel are working around any machine or system where unexpected or unintended motion, start-up, or release of stored energy could occur and cause an accident or injury. They should be used any time you place your head, hands, or any other part of your body in a position where they are at risk of being injured by moving equipment. Common examples of when to lock-out and tag-out are:

- Entry into confined spaces
- Rescue or recovery of victims from machinery
- Clearing blocked or jammed mechanisms
- Maintenance or repair work on equipment
- Repair or installation of electrical circuits
- Conveyor belts, punch presses, paper or processing rollers, cigarette making machinery, etc.

B. PROCEDURE

SECTION 1

It is important that all steps are followed to ensure proper shut down, lockout, and tag-out of equipment.

SECTION 2

Turn off switches or press the off buttons on the equipment. The machine should stop operating. Identify all the sources of energy that power the equipment. Remember, machines can use a combination of energy sources, so isolate <u>all</u> energy sources.

NOTE: Turning off a piece of equipment/machinery may cause it to "cycle-through." If a competent person is available, inquire to ensure that equipment/machinery will not cycle through when it is placed in the off position. Equipment/machinery that cycle through maybe detrimental to a victim caught in machinery.

SECTION 3

In facilities with complex and multiple energy sources, consult equipment operators and facility management for proper shut down, lock-out, and tag out procedures. Once you have identified the different sources of energy, isolate them using electrical disconnects, slip blinds, blocks, levers, pins, etc. Use one of the designated padlocks to lock the isolating device in place so the energy cannot be restored while work is performed in or on the equipment. Attach a designated tag at all points that you have locked out.

SECTION 4

If more than one person is working in or on a piece of equipment, each person shall attach a separate lock to the isolating device or use a single lock and place the key in a lock box where all personnel exposed to the hazard can lock the lock box. Multiple lock hasps shall be used when necessary. Padlocks are keyed separately and have only one key.

SECTION 5

Verify that the appropriate machine is locked out and tagged out, and perform a final check of all start buttons, valves, and levers assuring that they are secure prior to personnel operating in or on the equipment. Do not verify start buttons if a victim is exposed to any moving parts of the machinery.

SECTION 6

Remember that isolating the energy source does not guarantee that there is no energy in the machine. Some machines will store energy. This residual energy must be released or dissipated from the system to reach a zero mechanical state. This means that there is no potential energy and all motion has stopped.

SECTION 7

Check all buttons and levers to make sure the right sources have been isolated and cycle the equipment if necessary. Carefully drain or bleed any lines. Install ground wires to discharge any stored or potential electrical energy. Remember, **DO NOT**

activate start buttons for any reason if a victim or rescuer is exposed to moving parts of the machinery.

SECTION 8

Return all buttons, levers, and controls to the off or neutral position. This will prevent the equipment from starting by itself when the lock-outs are removed.

SECTION 9

On-site lockout and tag-out devices may be used if they can provide effective lockout and tag-out procedures.

SECTION 10

Dothan Fire Department personnel are still required to place their own padlock on the lock-out device or a common lock box and secure the key.

SECTION 11

If lock-out and tag-out devices are already in place, verify the effectiveness of the device and then add the appropriate Dothan Fire Department devices for our personnel's safety.

SECTION 12

Each person exposed to hazardous energy shall use a separate padlock. Each person must secure their own key once the lock has been placed and secured. A tag indicating who placed the lock and the reason for the lock-out shall be attached to each padlock.

SECTION 13

If personnel are required to change shifts or exchange positions, which expose new personnel to hazardous energy, the person leaving the hazardous area **shall not** remove their lock until the arriving person has locked out. Place your own lock for your own protection and secure your own key.

SECTION 14

Only the person who places a lock should remove it, except in an emergency. Before removing the last lock, account for and inform all personnel that the locks are going to be removed. The last person to remove a lock also removes the lock-out devices, hasps, and tags.

SECTION 15

Cutting the padlock shall be performed only if emergency removal is necessary. Conditions and reasons for such actions shall be documented on an incident report and forwarded to the Safety Officer.

SECTION 16

Before turning on the power to any piece of equipment, make a final inspection to be certain the equipment is safe to operate.

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SECTION 17

Finally, account for all personnel to be sure everyone is physically clear of the equipment. If the machine is too large to see all around during start up, personnel shall be placed in areas to observe and sound the all clear for start-up.

C. LOGISTICAL SUPPORT

SECTION 1

Lock-out and tag-out equipment shall be standard equipment for all engine companies, truck companies, and technical rescue units.

SECTION 2

Minimum lockout and tag out equipment will be:

- Padlocks keyed separately (4)
- Multiple lockout hasps (4)
- DFD lockout tags (4)
- Lockout tags (4)

SECTION 3

Logistics will supply lock-out and tag-out equipment through normal requisition procedures.

SECTION 4

One key per padlock will be issued; all secondary keys shall be destroyed for safety and security.

D. SPECIAL CONSIDERATIONS

SECTION 1

One designated individual may lock-out equipment for the entire crew if each person verifies the equipment is locked out. Lock-outs and tags used on equipment cannot be removed until the last person of the crew removes their lock and tag from the key box.

SECTION 2

Normal operating activities requiring personnel to remove or bypass a guard or other safety device and place any part of their body into a potential danger zone shall require the equipment to be locked and tagged out.

SECTION 3

Lock-out and tag-out is not required when the hazards are controlled by unplugging the equipment from the energy source, and the plug or fittings are under the exclusive control (visible and within reach) of the person performing the task.

SECTION 4

Mechanical and gravity systems must be locked out by installing stops and retaining pins. Stops and pins must have an opening where locks can be installed.

SECTION 5

Movement due to gravity shall be physically blocked and locked in the desired position.

SECTION 6

Pressurized liquid/gas systems or chemical piping systems require special precautions to prevent the inadvertent flow of material. Pipes and valves may contain hot, cold, or other hazardous substances. Remember to identify the product inside the piping before disconnecting or blanking. One of the following actions shall be used to secure these hazards, especially for confined space entry:

- 1. Cap all pipelines and ducts.
- 2. Remove a section of pipe.
- 3. Insert a full pressure blank in lines or ducts and tag the first connection from the equipment.
- 4. Install special blank flanges in piping systems to prevent exposure and provide lockout provisions. The flanges shall have openings for installation of chains or locks and tags.
- 5. Close and lock at least two valves in the line and lock open a drain valve between the two valves (non-health hazardous products only).
- 6. Immediately notify command of <u>all</u> lockout/tag out procedures that are implemented.
- 7. Review lockout/tag out procedures with the property owner/occupants as soon as reasonably possible, but always before leaving the incident.

(Signature On File)

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DOTHAN FIRE DEPARTMENT