

Lockout Tagout: How to Create a Lockout Policy



What's At Stake

If machinery starts up while it's being maintained or repaired, workers performing the servicing operation risk:

- Being crushed or struck by the machinery or its moving parts;
- Amputation from blades and cutting instruments;
- Electrocution or burns from power surges.

Even after machinery is shut down, there's a risk that it will somehow energized while workers are servicing it. Common examples:

- Somebody who doesn't know the machine is being serviced may turn on the power;
- Workers might accidentally turn the power on themselves;
- It turns out that the power really wasn't shut off after all; or
- Residual energy in the system activates the machine.

OHS laws require employers to implement lockout and de-energization procedures to ensure such incidents don't happen.

Programs, Policies & Procedures

Let's define our terms before we start. To comply with lockout requirements, you'll need 2 sets of written documents:

- A general lockout *policy* or *program* setting out general guidelines for identifying the need for and implementation of lockout procedures; and
- *Procedures* setting out the technical measures for performing lockout operations.

This article is about how to write and implement a policy or program. Model procedures, by contrast, are a contradiction in terms because the technical methods used to effect a lockout vary depending on the type of machinery being serviced and maintenance performed.

9 Things to Include in Your Lockout Policy

Here are 9 things to include in your Model Lockout Policy.

1. Statement of Purpose

Indicate that the purpose of the policy is to prevent amputation, crushing, electrocution and other injuries to personnel performing maintenance work on machinery and equipment and ensure compliance with the OHS laws of your jurisdiction.

2. Key Definitions

Include clear definitions of the crucial technical and legal terms that appear in your policy such as 'lockout,' 'isolation,' 'isolating device,' 'energy source' and 'maintenance.'

3. Roles & Responsibilities

Describe the roles and responsibilities of key personnel in carrying out lockout operations, including:

- Authorized persons, i.e., personnel with the competency and authority to implement key steps in the lockout procedure; and
- Affected persons, i.e., workers, supervisors and others

affected by lockout operations.

4. When Lockout Required

State that lockout, i.e., isolation and control of the energy source, is required if unexpected energization or startup of machinery or equipment could cause injury to a worker performing maintenance (which includes servicing, installation, repair, testing, lubrication, cleaning and clearing obstructions to the normal flow of materials) on it. Exception: Under most jurisdiction's OHS laws, lockout is generally not required where the machinery manufacturer doesn't require it for maintenance and/or it's not 'practicable' and alternative measures providing for at least equivalent safety are implemented.

5. Lockout Procedure

The heart of the policy is a description of the steps of your general lockout procedure, which will typically include:

Step 1: Prepare for Shutdown: Before maintenance begins, an authorized person must identify the sources of energy that need to be controlled and how.

Step 2: Notification: The authorized person must notify workers affected by the lockout:

- That a lockout is going to happen;
- What machinery is going to be locked out;
- How long the machinery will be unavailable;
- Who's responsible for the lockout; and
- Whom to contact for more information.

Step 3: Machinery Shutdown: The machine must be shut off in accordance with manufacturer's instructions. Somebody needs to verify that the all controls are in the 'off' position and all moving parts have come to a complete stop.

Step 4: Isolation: The next crucial step is to isolate the

system from its source of energy. Methods of isolation vary depending on the type of energy being isolated, e.g., electrical, chemical, pneumatic, etc.

Step 5: Bleeding: Specify that stored residual energy, e.g., electricity in the capacitors, must be dissipated so it doesn't cause the machine to start up. Methods of dissipation include grounding, repositioning, blocking or bleeding or other methods depending on the type of energy involved.

Step 6: Placing Locks & Tags: Require the use of locks to secure the energy-isolating device and tags to signal that a lockout is in process and that the machinery may not be turned on. Exception: Locks may not be required if they're impractical to use and equally effective alternative means of securing the device are used. In addition, in BC, Newfoundland and Yukon, using a lock to secure an energy-isolating device is NOT required if:

- The energy-isolating device is under the exclusive and immediate control of the worker at all times while working on the machinery or equipment; or
- A tool, machine or piece of equipment that gets power through a readily disconnected source of power, e.g., an electric cord or quick release air or hydraulic line, is disconnected from its power supply and its connection point is kept under immediate control of the worker at all times while work is being done.

General Guidelines for Locks
> There should be at least as many locks as workers working on the system; > Locks must be marked to make it easy to identify which worker placed it; > Master keys and combination locks aren't allowed.

Step 7: Verification: The final step in the initial lockout phase is to verify that the machine is effectively isolated

via visual inspection, testing the equipment and/or attempting to restart it.

Step 8: Perform Maintenance: Once you verify the effectiveness of the lockout, you can perform the maintenance operation that required you to implement it in the first place.

Step 9: Re-Energize Machine: List the steps to be taken when the maintenance ends and the machine is ready to be put back in service, including:

- Checking the machinery to ensure equipment components are operationally intact and controls are in neutral;
- Checking the work area to ensure it's been cleared of unnecessary tools, equipment and personnel;
- Removing locks and tags (note that in several jurisdictions, only the worker that places the lock or tag is allowed to remove it);
- Restart the machine; and
- Notify affected workers that the maintenance is done.

6. Requirements for Temporary Removal of Lockout Devices

Specify procedures to be followed in case lockout devices or tags must be temporarily removed from the energy-isolating device and the machine or equipment must be temporarily energized, e.g., to test or position the machine, equipment or components.

7. Requirements for Shift & Personnel Changes

Set out specific procedures to ensure continuity of lockouts that are still taking place when shift or personnel changes occur so that the incoming shift is totally aware of the lockout process and the shift or personnel changes don't disrupt implementation and completion of the lockout procedure.

8. Group Lockouts

Because of their reliance on a single authorized individual, lockout procedures can be pretty cumbersome to implement, especially where a large group of workers or number of energy-isolating devices is involved. To deal with this problem, Alberta, BC, Newfoundland and Yukon allow for the use of a group lockout procedure implemented by multiple workers. If you're from one of those jurisdictions, you can provide for group lockout as long as you comply with all the safeguards required for implementing a group procedure.

Other jurisdictions (including Nova Scotia, New Brunswick and Manitoba) that don't expressly permit group lockout leave the door slightly ajar by giving employers the right to implement alternative methods when the prescribed lockout method isn't practicable as long as the alternative provides protection that's equivalent or greater. Group lockout may qualify as an acceptable alternative.

9. Coordination of Lockout Measures with Outside Contractors

The policy must explain how lockout activities will be carried out and coordinated when outside contractors perform or are affected by your lockout procedures. Specifically, you need to ensure contractors are made aware of the procedures you use and, to the extent they're expected to carry out maintenance operations requiring lockout, implement either:

- Your lockout procedure; or
- Another procedure that's suitable for the machinery being serviced and maintenance performed, compliant with OHS regulations and at least equally effective in protecting workers as your own procedure.