

# LOCK OUT / TAG OUT/ BLOCKING EQUIPMENT or PROCESSES



## HEALTH AND SAFETY PROCEDURE

No.: H&S 4.1

Issue Date: June 29/12  
Date Reviewed: Sep 30/19  
Next Review Date: Sep 30/20

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Status: Approved

Any omissions or correction should be brought to the attention of the Originator.

### Overview

This Procedure follows the City of Vaughan's Corporate Occupational Health and Safety Policy.

The City of Vaughan is committed to the prevention of accidents from equipment that is electrically energized or contains stored electrical or mechanical energy, heat, pressure or chemicals that can release energy and cause injury. To prevent the accidental release of energy, this procedure requires that all City of Vaughan workers and contractors physically bring all such equipment to a "zero energy" state before beginning to service or repair equipment or machinery. In this zero-energy state, there is no residual energy that can be released to cause an accident.

This procedure does not apply to tasks such as circuit testing which require the equipment to be energized. This procedure also does not apply to routine visual inspections during which it is unlikely that a worker or the workers clothing will become entangled in the equipment.

### Purpose:

To ensure equipment and machinery is fully secured against accidental start up, movement or release of electrical, mechanical, hydraulic, pneumatic, chemical or thermal energy when worked on by workers or hired contractors. To comply with the requirements set out in the Occupational Health and Safety Act and Regulations.

### Definitions:

*lock-out & tag-out* - a method of keeping equipment from being set in motion and endangering workers.

*blocking* - the act of obstructing or deflecting someone's movements

Originator:

A handwritten signature in black ink, appearing to read 'Frank Kraljevic'.

Frank Kraljevic,  
OCHRO, Workplace Health and Safety Specialist

Reviewed By:

A handwritten signature in black ink, appearing to read 'Demetre Rigakos'.

Demetre Rigakos,  
Chief Human Resources Officer

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## **Responsibilities:**

### **Managers**

- Shall be responsible to ensure that these procedures are being adhered to by Supervisors and the necessary funds are provided to ensure the necessary equipment is available to safely conduct the work.

### **Supervisors**

- Ensure workers who service or do any maintenance on machines and equipment to be trained in procedures for identifying and locking-out and tagging energy sources.
- Shall review this procedure with workers and ensure the necessary information and equipment on locking out and tagging equipment is provided to workers.
- Shall ensure that this procedure is being adhered to by employees when working with equipment or onto an apparatus that may present energy hazards.
- Are responsible for identifying any equipment or machinery that will require lock-out and tagging procedures and ensure procedures and operations manual are posted or available for the machinery or equipment for proper lock out instructions.

### **Employees**

- Workers who service or do any maintenance on machines and equipment must be informed and adhere to this procedure for identifying and locking-out and tagging energy sources.
- Workers involved in electrical type lock out tag out must remove jewelry (rings, ear rings, watches) when performing any electrical type work and wear the necessary personal protective equipment.
- Workers shall ensure they wear the required personal protective equipment provided to them for the particular work.
- Report any contraventions of this procedure or the Occupational Health and Safety Act to the Supervisor for corrective action.

### **Contractors**

- Any persons contracted to perform work on behalf on City of Vaughan shall comply with legislative requirements set out in the Occupational Health and Safety Act and shall work in a manner that is consistent with this procedure.

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## **Procedure**

### **Lock out:**

1. Prior to beginning work on any piece of equipment that could start-up, move or release stored energy, all workers and/or contractors will take all reasonable precautions to de-energize or prevent movement of the equipment.
2. Other sources of energy that may affect work, (e.g. hydraulic, gravitational, spring, pneumatic, back-feed, emergency power, induction), must be identified and reduced to their lowest practical level (ZES – zero energy state) before work is started.
3. Before carrying out any testing, maintenance or work on the equipment or processes, employees and contractors will don on the necessary personal protective equipment before testing the equipment to ensure that it is in fact de-energized. The start switch shall be tested to ensure equipment, machinery, process is inoperative.
4. For work that cannot be de-energized, proper personal protective equipment (e.g. electrical matting, hand protection to protect against electrical shock or arc, safety glasses, hard hat, etc...) and work instructions on how to perform the work in a safe manner must be discussed with the Supervisor with the worker or work crew prior to starting any work. (e.g. Working near live electrical panels, working on equipment with rotating or moving parts, etc...). Live work must be performed by a two-person operation.
5. Employees involved in the lock out tag out will communicate the shutdown of any energy or processes to affected departments prior to work being conducted.
6. Where applicable, the worker(s) that will be doing the work must install their own lock and tag on the device to control the energy source. The tag shall be signed, dated and reason for the lockout noted on the tag by the lock's owner (sample tag attached to this procedure).
7. When more than one worker is working on a task requiring lock-out, a multiple lock adapter shall be used. Each worker involved in the operation must attach their own lock to the multiple lock adapter. Once all work is completed, each worker shall remove their own lock from the multiple lock adapter. This will ensure each worker involved in the operation is satisfied that the work operation is safe to start up.
8. Proper Personal Protective Equipment particular to the work must be worn at all times. (e.g. Electrical gloves, safety glasses/face shield for electrical type work)

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9. A lock and tag will only be removed by the worker who installed it. The lock will be removed only, when the person who installed it is satisfied that it is safe to do so (e.g. ensure other workers are clear of the area, all equipment is reassembled, guards in place and all tools accounted for) . If more than one lock is being used, the person removing the last lock will only do so when he or she is satisfied that it is safe to re-start the equipment.

**NOTE: If a worker goes home without removing his/her lock, the supervisor will call them at home and have them return to the workplace to remove their lock.**

### **BLOCKING:**

1. Where the equipment has been stopped, but may subsequently move (e.g. gravity, rolling, rotation, etc.), it shall be securely blocked, chained, wedged, pinned or otherwise immobilized to prevent any accidental movement that may endanger a worker.
2. Any mechanism under tension or pressure, such as springs or fluids, should be released and blocked (e.g. raised dump truck boxes). Spring or compression mechanisms should be blocked out and suspended parts either lowered or blocked.
3. Solid blocks must be positioned under any raised parts that could descend by force of gravity. They must be capable of supporting the weight of such parts
4. If the worker is unaware how to properly block the flow of energy from the equipment or process, the supervisor shall be notified where in turn, the supervisor may contact the manufacturer of the equipment or process for the proper blocking process.
5. All blocking equipment must meet engineering requirements for its intended use. blocking may include lock pins, chains, bars, blocks, etc. The use of such equipment must not also exceed the documented integrity or beyond the recommendations of the manufacturer.

### **REGULATORY REFERENCES/STANDARDS/CODES:**

#### ***Occupational Health and Safety Act:***

***Industrial Establishments Regulation***

***Section 42 & 76***

***Construction Regulation***

***Section 188 & 189***

Attachment: Sample Lock Out Tag



A sample lock out tag with a red and white diagonal striped border. At the top, there is a red oval with the word "DANGER" in white. Below this, the Vaughan logo is displayed, consisting of a stylized blue and green 'V' followed by the word "VAUGHAN" in blue. Under the logo is the phone number "(905) 832-2281". Below the phone number is a line for "Department:". The main text in the center reads "DO NOT OPERATE" in large, bold, black letters. At the bottom, it says "THIS TAG & LOCK TO BE REMOVED ONLY BY THE PERSON NOTED THE ON BACK".

**DANGER**

 **VAUGHAN**

☎ (905) 832-2281

Department: \_\_\_\_\_

**DO NOT  
OPERATE**

THIS TAG & LOCK TO BE  
REMOVED ONLY BY THE  
PERSON NOTED THE ON BACK



A sample lock out tag with a red and white diagonal striped border. At the top, there is a red oval with the word "DANGER" in white. Below this, the text "EQUIPMENT LOCKED OUT" is written in large, bold, black letters. This is followed by "BY:" and a line for the name. Below that is "Cell#: ( )" followed by a line for the cell number. The next line reads "The energy source has been" followed by "LOCKED OUT." in red, underlined text. Below this is "Unauthorized removal of this lock / tag may result in immediate dismissal." followed by "(State Reason):" and a line for the reason. At the bottom, there are three lines for "DATE:", "TIME:", and "SIGNED:".

**DANGER**

**EQUIPMENT  
LOCKED OUT**

**BY:** \_\_\_\_\_

Cell#: ( ) \_\_\_\_\_

The energy source has been  
**LOCKED OUT.**

Unauthorized removal of this  
lock / tag may result in  
immediate dismissal.

(State Reason): \_\_\_\_\_

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

SIGNED: \_\_\_\_\_