

UNIVERSITY OF WASHINGTON LOCKOUT TAGOUT (LOTO) PROCEDURE

(WAC 296-803)

| DESCRIPTION:   |   |  |  |
|--|---|--|--|
| University of Washington Department/Division:  | Building/Address:   |  |  |
| Paul G. Allen School of CSE  | Bill & Melinda Gates Center for CSE                                   |  |  |
| Equipment ID: N/A- Part of building build-out  | Equipment/System Description: <i>Fume extractor for laser cutters</i> |  |  |
| Location: CSE2 G15A  | Procedure last updated: 2023.01.10                                    |  |  |
| <b>PURPOSE:</b> (WAC 296-803-20005)<br>This procedure establishes the minimum requirements necessary to protect employees from injury caused by the<br>unexpected energization, start up, or release of stored energy during service or maintenance. Use this procedure to make<br>sure the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before any<br>employee begins work |   |  |  |
| <b>AUTHORIZATION: (</b> WAC 296-803-20005)   | ne or equipment using this procedure.                                 |  |  |
| Alexander Lefort, Fabrication Research Lab Manager   |   |  |  |
| SCOPE: (WAC 296-803-20005) Provide a description of the scope of work for this service or maintenance work (include the work order #): Work order #:   |   |  |  |
| Fume extractor repairs<br>Fume extractor maintenance (i.e. filter changes, tubing realignment, cleaning)   |   |  |  |
| <b>NOTIFY</b> : (WAC 296-803-20010)<br>Notify all affected employees that the machine or equipment is to be  | shut down and locked out for service or maintenance:                  |  |  |
| Name/Job Title:  | Notification Method:  |  |  |
| Listserv   | Email   |  |  |
| Lab Personnel  | Sign posted on equipment  |  |  |
|  |   |  |  |
| NORMAL SHUTDOWN: (WAC 296-803-20010)<br>Shut down the machine or equipment by normal stopping procedures (such as depressing a stop button, opening switches, or closing valves). List the types and locations of machine or equipment operating controls:   |   |  |  |
| Shutdown Method:   | Location:   |  |  |
| Ensure power button has been switched to off position.   | Back-left of machine case, toward the top.                            |  |  |

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#### ISOLATE AND LOCKOUT: (WAC 296-803-20001)

Isolate energy sources using appropriate isolating devices. Lock and tag out the energy isolating devices with assigned individual locks and tags:

WARNING: The following are the known lockout steps. If additional steps are discovered, inform your supervisor, lock them out, and modify this procedure accordingly.

| supervisor, lock them out, and mouny this procedure accordingly |                       | Energy course and magnitude:   |  |
|---|-----------------------|--|--|
| I   |                       | Type of energy source: Electrical  |  |
|   |                       | Magnitude: 120V, 15A   |  |
|   |                       | Energy Isolating Device Location:  |  |
|   |                       | Power cord, coming from back of unit.  |  |
|   | PUME PATRO PALO       | Isolation device/procedure:  |  |
|   | ACTION TECHNOLOGY     | Ensure power switch on the back of the unit is in the off position. Unplug the power cord from the wall receptacle behind the machine. |  |
|   |                       | Control Method: Lock/Tag Info (Initial and Date)   |  |
|   |                       | Annhy read and the set of the set of the set   |  |
|   |                       | diagram for proper fitting and lock in the closed position<br>around the cord with LOTO hasp.  |  |
|   |                       | Method to relieve residual/stored energy:  |  |
|   |                       | N/A  |  |
|   |                       | Verification Method:   |  |
|   |                       | Attempt to switch the machine on via power button  |  |
|   |                       | Then ensure button returns to the off position.  |  |
|   |                       | Restored by: (Initial and Date):   |  |
| 2   |                       | Energy source and magnitude:   |  |
|   |                       | Type of energy source:   |  |
|   |                       | Magnitude:   |  |
|   |                       | Energy Isolating Device Location:  |  |
|   |                       |  |  |
|   |                       | Isolation procedure:   |  |
|   | Click to              |  |  |
|   | insert                |  |  |
|   | picture               |  |  |
|   | (portrait photo only) |  |  |
|   |                       |  |  |
|   |                       | Control Method: Lock/Tag Info (Initial and Date)   |  |
|   |                       |  |  |
|   |                       |  |  |
|   |                       |  |  |
|   |                       | iviethod to relieve residual/stored energy:  |  |
|   |                       |  |  |
|   |                       |  |  |



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|   |                                  | Verification Method:                                      |
|   |                                  |   |
|   |                                  |   |
|   |                                  | Restored by: (Initial and Date):                          |
| 3 |                                  | Energy source and magnitude:                              |
|   |                                  | Type of energy source:                                    |
|   |                                  | Magnitude:  |
|   |                                  | Energy Isolating Device Location:                         |
|   |                                  |   |
|   |                                  | Isolation device/procedure:                               |
|   | Click to<br>insert               |   |
|   | picture<br>(portrait photo only) | Control Method: Lock/Tag Info (Initial and Date):         |
|   | (portal proto only)              |   |
|   |                                  | Method to relieve residual/stored energy:                 |
|   |                                  |   |
|   |                                  |   |
|   |                                  | Verification Method:                                      |
|   |                                  |   |
|   |                                  | Restored by: (Initial and Date):                          |
| 4 |                                  | Energy source and magnitude:                              |
|   |                                  | Type of energy source:                                    |
|   |                                  | Magnitude:  |
|   |                                  | Energy Isolating Device Location:                         |
|   |                                  |   |
|   |                                  | Isolation device/procedure:                               |
|   | Click to<br>insert<br>picture    |   |
|   | (portrait photo only)            |   |
|   |                                  | Control Method: Lock/Tag Info ( <i>Initial and Date</i> ) |
|   |                                  |   |
|   |                                  |   |
|   |                                  | Method to relieve residual/stored energy:                 |
|   |                                  |   |
|   |                                  |   |



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|   |                       | Verification Method:                             |
|---|-----------------------|--|
|   |                       |  |
|   |                       |  |
|   |                       | Restored by: (Initial and Date):                 |
| 5 |                       | Energy source and magnitude:                     |
|   |                       | Type of energy source:                           |
|   |                       | Magnitude:                                       |
|   |                       | Energy Isolating Device Location:                |
|   |                       |  |
|   |                       | Isolation device/procedure:                      |
|   |                       |  |
|   | Click to              |  |
|   | insert                |  |
|   | (portrait photo only) | Control Method: Lock/Tag Info (Initial and Date) |
|   |                       |  |
|   |                       |  |
|   |                       | Method to relieve residual/stored energy:        |
|   |                       |  |
|   |                       | Verification Method:                             |
|   |                       |  |
|   |                       | Restored by: (Initial and Date):                 |

| <b>GROUP LOTO</b> : (WAC 296-803-50050)<br>Determine which procedures to use if more than one person will be involved in the LOTO procedure:  |           |            |      |  |
|---|-----------|------------|------|--|
| Will more than one person will be invo  | lved in t | procedure? |      |  |
| If you select NO, group LOTO will not be used, skip to next section   |           | T YES      | X NO |  |
| If you select YES, a group LOTO <u>will</u> be used, and describe your group LOTO method below  |           |            |      |  |
| Choose a group LOTO method:   |           |            | 1    |  |
| A hasp will be used for this procedure  |           |            |      |  |
| A lock box will be used for this procedure Lock Box Identification #:   |           |            |      |  |
| A Primary Authorized Person   | Name:     |            |      |  |
|   | Name:     |            |      |  |
| During shift or personnel changes, make sure there is continuous LOTO protection and record the new PAP and date each time there is a change. |           |            |      |  |

THE MACHINE OR EQUIPMENT IS NOW LOCKED OUT AND SERVICE OR MAINTENANCE CAN BE DONE

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**RESTORE**: (WAC 296-803-50035) Restore the machine or equipment to service after the service or maintenance is completed.

- **Step 1:** Check the machine or equipment and the immediate area around it to make sure all non essential items have been removed and that the machine or equipment is in operating condition and ready to energize.
- Step 2: Make sure all employees are safely positioned for starting or energizing the machine or equipment.
- **Step 3:** Verify that the controls are in neutral.
- **Step 4:** Remove the lockout devices and reenergize the machine or equipment.

**Note**: Some forms of blocking may require re-energization of the machine before they can be safely removed.

**Step 5:** Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready to use.

**Revised January 2018** 

Questions? Contact ehsdept@uw.edu