



LOCKOUT-TAGOUT PROCEDURE

OSHA CFR 1910.147

Developed by	Reviewed by	Revised by
ESC	ESC	

Description: Air Handling Unit			Equipment #: 866.773.7541		
Building: Warehouse 1	Area: Tooling	Rev: 0	Date: N/A	Origin Date: 26-Jan-12	

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Isolation Points to be Locked and Tagged

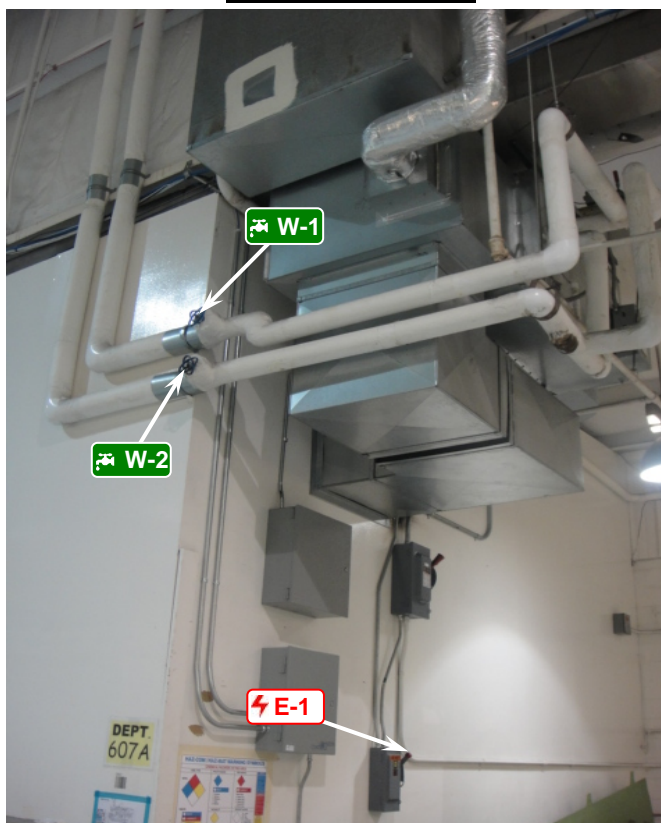
NEXT AUDIT DUE
JAN 2013

NEXT AUDIT DUE
JAN 2014

NEXT AUDIT DUE
JAN 2015

NEXT AUDIT DUE
JAN 2016

South Side View



ALWAYS PERFORM A MACHINE STOP BEFORE LOCKING OUT DISCONNECTS

ID	Source	Device	Location	Method	Check
E-1	Electrical 480V	Padlock	Isolation point on below unit.	Move E-1 disconnect to off. Lock out.	Verify machine is deenergized.
W-1	Water Inlet - 60 PSI	Gate valve device	Isolation point on South side of unit.	Turn W-1 valve to closed position. Lock out.	Verify pressure has bled off.
W-2	Water Outlet - 60 PSI	Gate valve device	Isolation point on South side of unit.	Turn W-2 valve to closed position. Lock out.	Verify pressure has bled off.
Kinetic Energy 1750 RPM		Be sure to lower all parts to lowest position or install blocks in raised position before attempting to service machine.			



OPENING A GUARD DOES NOT CONSTITUTE A LOCKOUT

Any machine modifications must be shown in procedure. Contact safety department to update procedure.

Safety Is Your Responsibility!



Equipment Specific Lockout Tagout Procedure

OSHA CFR 1910.147
Purpose: To protect authorized employees against unexpected or unplanned activation of equipment or energy while servicing equipment.
Scope: Utilize this procedure for all scheduled PM shutdowns, any maintenance task that requires you to place your body in harms way of the equipment or if you have to leave the area while the equipment is in service.
Enforcement: Failure to properly follow lockout-tagout procedures may result in disciplinary action.

SHUTDOWN SEQUENCE - LOCK/TAG, TRY, TEST

#	STEP	DESCRIPTION
1	<i>Notify</i>	Notify all affected employees that servicing or maintenance is required on a machine or equipment, and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
2	<i>Review Lockout Procedure</i>	The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
3	<i>Perform Machine Stop</i>	If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.). <i>Reference operating procedure for normal shutdown.</i>
4	<i>Isolate Energy</i>	Follow graphical lockout-tagout procedure from top to bottom to de-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s) . <i>Note: It may be necessary to dissipate the non-lockable energy sources before isolating the lockable energy sources (i.e. lower machine to lowest position before locking out)</i>
5	<i>Lockout Energy</i>	Perform all lockout-tagout procedure steps from top to bottom starting with page 1. Lock out & tag out the energy isolating device(s) with assigned individual lock(s) and tag(s).
6	<i>Dissipate Energy</i>	Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
7	<i>Attempt Restart TRY STEP</i>	Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate. Note: Verify all interlocks, on/off buttons, etc. are in proper position for startup to ensure that the lockout is the only means of deenergization when attempting restart.

Caution: Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.

RESTORE TO SERVICE SEQUENCE

#	STEP	DESCRIPTION
1	<i>Check Machine</i>	Check the machine or equipment and the immediate area around the machine to ensure that nonessential items such as parts and tools have been removed and that the machine or equipment components are operationally intact including replacment of guards, interlocks, etc.
2	<i>Check Area</i>	Check the work area to ensure that all employees have been safely positioned or removed from the area.
3	<i>Verify Machine</i>	Verify that the controls are in neutral .
4	<i>Remove Lockout</i>	Remove the locks, tags and lockout devices and reenergize the machine or equipment. Reverse the order of all lockout-tagout procedure steps from bottom to top starting from the last page. <i>Note: The removal of some forms of blocking may require reenergization of the machine before safe removal.</i>
5	<i>Notify</i>	Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.