Cal Poly Environmental Health and Safety
Equipment-Specific Hazard Energy Lockout/Tagout Procedures Attachment 9.1, Rev#4

Section A: General Information

PROCEDURE PURPOSE: The purpose of this procedure is to identify all hazardous energy sources present, hazardous energy isolation points; list all required steps to safely shut down the equipment, isolate the energy sources, and return it to service.
This procedure may be used or modified for identical equipment with identical procedures at the same location.

Review the appropriate manufacturer recommendations, operating procedures, or identical Control of Hazardous Energy (COHE) written procedures.

Equipment Type and Description	
Location (Bldg./Room/Area)	
Reason for Lock Out/Tag Out	

Review or prepare a Job or Task Hazard Analysis. Review the equipment manufacturer instruction and labels if present. Review Attachment 9.3, *Types, Sources and Hazards of Energy*. Document findings below:

Section B: Identified Hazards and Safety Equipment. *Check all that apply*

Identify all types of hazardous energy and its magnitude, if applicable.

☐ Mechanical Energy ☐ Potential Energy ☐ Gravitational Energy	☐ Stored Energy ☐ Hydraulic Pressure _____psi ☐ Pneumatic Pressure ____psi	☐ Thermal Energy _____^{0}F ☐ Chemical ☐ Industrial Piping	☐Radiation[1] ☐ Electrical[2] Voltage_____

Notes: [1] Contact EHS for assistance. [2] A Qualified Person must complete all electrical work. Use Attachment 9.2 *Electrical Safe Work Practices.*

Identify all safety equipment and PPE required for lockout/tagout.

Required PPE: ☐ Safety glasses ☐ Work shoes ☐ Hearing protection ☐ Gloves ☐ Protective/Work Clothing	**Equipment/Tools used:** ☐ Insulated tools ☐ Welding Equipment. ☐ Meters (intrinsically safe) ☐ Ladders ☐ Other (list) **Safety Warnings:** _____ ☐ Warning/accident signs posted _____ ☐ Barricades posted _____

Written procedures are required for servicing, troubleshooting, and maintenance of equipment with hazardous energy. If the answer to any Exception question below is **NO**. proceed to Section D, Written Hazardous Energy Control Procedures.

Exceptions: If **YES** for all questions 3a,3b and 3c, **or** YES for question 3d, a written procedure is **NOT** required.

3a	Are there written LOTO procedure available for equipment with operational controls configured in identical manner?	☐ YES	☐ NO
3b.	Are the locations for disconnection points (energy isolation devices) identified and	☐ YES	☐ NO
3c	Are the sequence of steps to safely lockout or tagout the machinery or equipment identical?	☐ YES	☐ NO
3d.	Does the machinery or equipment have a single energy supply that is (1) readily identified and isolated and (2) has no stored or residual hazardous energy?	☐ YES	☐ NO

If there is an Exception, sign here. If applicable, attach procedures referenced in Question.3a.	Name:	Signature:

Ensure all employees affected by the lockout/tagout of equipment are notified **BEFORE** work begins.

Section C: Required Notification

All Employees affected by this equipment lockout tagout have been notified ☐ **YES** ☐ **NA**

Cal Poly Environmental Health and Safety

Equipment-Specific Hazard Energy Lockout/Tagout Procedures Attachment 9.1, Rev#4

Section D: Written Hazardous Energy Control Procedures Pg. 1 of ___

Energy Type and Source	***EXAMPLE: Compressed air***			
STEP ONE: Describe the Energy hazards, recognized hazards, and method used to control the hazards.	*Compressed air at 220 psi. Hazards include pressure spray to body or injury from hose whip. Control hazard by shutting off equipment, opening bleed valve and disconnecting hose from manifold.*	.		
STEP TWO Provide steps to shut down equipment, machine, or system and isolate it from energy source.	*After unplugging compressor and opening bleed valve on compressor tank to drain air from tank, disconnect hose from manifold. Apply lock and tag on plug. See Fig.1*			
STEP THREE Record the Lock and Tag[1] Identification numbers .	*Lock ID A**0439*** *Tag ID B**0311***	**Lock ID** _____ **Tag ID** _____	**Lock ID** _____ **Tag ID** _____	**Lock ID** _____ **Tag ID** _____
STEP FOUR Describe how to verify a Zero Energy state.	*After draining air from compressor tank, turn switch on and verify the compressor motor does not start.*			
STEP FIVE If movement or energized work is required, describe how it will be controlled to prevent injury.	*Not Applicable*			

Notes [1] *Tags only, without use of locking device, may be used if the isolation point cannot be locked out or is not readily adaptable to a locking control. Effective means of energy control must be used.*

ALL LOCKS AND TAGS MUST BE ACCOUNTED FOR AFTER LOTO IS COMPLETED.

	Number of Locks used		**Number of Locks returned**	
	Number of Tags Used		**Number of Tags Returned**	

Cal Poly Environmental Health and Safety
Equipment-Specific Hazard Energy Lockout/Tagout Procedures Attachment 9.1, Rev#4

1. **END OF WORK SHIFT:** At the end of the work shift if work is still in progress, do not close out this form. The worker must verify Zero Energy and tags before work begins.
2. **CHANGE IN PERSONNEL:** If a different employee will continue the work, refer to Cal Poly COHE plan, Section 3.6.2. Ensure a smooth transition by minimizing hazards from unexpected energization or startup of machine or the release of stored energy.

Section E: Steps to Return to Service *Add any necessary equipment-specific steps.*	**Y**	**N**	**NA**
Step 1. Verify equipment and area is clear of tools, workers, equipment, materials, and debris.			
Step 2. Unlock and remove any blocking devices; remove linkages.			
Step 3. Reposition any safety devices, guards, interlocks.			
Step 4. Warn workers to stay clear of the area.			
Step 5. Remove all locks and tags for energy control points. Remove all control devices.			
Step 6. Verify affected areas are clear of personnel.			
Step 7. Re-energize the equipment. Note: be certain to consider effects of re-energization on all systems "downstream" of energy source.			
Step 8. Account for all lock and tag used.			
Step 9. Notify supervisor when work is complete			
Step 10. If you find any errors in this procedure, or have suggestions on how to improve it, provide your comments to your supervisor and EHS.			
Step 11. Additional Notes/Steps			

Authorized Person creating procedures. NAME:	Title:	Date:

Section F: Procedure Review
To be completed by Supervisor or Manager.

Comments:

Reviewed by:	Title:	Date: