



CONTROL OF HAZARDOUS ENERGY PROGRAM

December 2025

Environmental Health & Safety
Michigan State University
4000 Collins Road, Room B20
Lansing, MI 48910
517-355-0153
ehs.msu.edu

TABLE OF CONTENTS

1	Purpose	3
1.1	Version	3
1.2	Scope	4
1.3	Exceptions	4
2	Responsibilities	4
2.1	Employees	4
2.2	Supervisors and Principal Investigators	4
2.3	Deans, Directors, and Chairs	4
2.4	Environmental Health and Safety	5
2.5	MSU IPF Key Shop	5
2.6	Contractors	5
3	Exemption to Written Energy Control Procedures	5
4	Written Energy Control Procedures	6
4.1	Written Process for the Application of Lockout/Tagout Controls	6
4.1.1	Preparation for shutdown	6
4.1.2	Machine or equipment shutdown	6
4.1.3	Machine or equipment isolation	6
4.1.4	Lockout or tagout device application	6
4.1.5	Stored energy	7
4.1.6	Verification of isolation	7
4.2	Written Process for Removal of Energy Control Devices	7
4.2.1	Release from lockout or tagout	7
4.2.2	Lockout or tagout devices removal	7
4.3	Written Process for Testing or Re-positioning Equipment	7
4.4	Tagout-Specific Requirements	8
5	Group Lockout/Tagout Procedures	8
6	Shift Changes	8
7	Lock and Key Control	9
7.1	Personal Lock Requirements	9
7.2	Operations Locks Requirements	9
7.3	Control of Keys	9
7.4	Locks and Keys for External Users	9
8	Energy Isolation Devices	9
8.1	LOTO Device Criteria	9
8.1.1	Durable	9
8.1.2	Standardized	9
8.1.3	Substantial	10



8.1.4	Identifiable.....	10
8.2	Identification of Energy Isolation Points	10
9	Training	10
10	Contractors and Outside Personnel.....	10
11	Lockout/Tagout Device Removal Procedures	11
11.1	Contactable	11
11.2	Non-Contactable	11
12	Lockout/Tagout Procedure Review.....	11
13	Definitions	11
14	Appendix A: Partial Exemption Worksheet.....	14
15	Appendix B: Lockout/Tagout Device Removal Form	15

1 PURPOSE

The purpose of this document is to create an Energy Control Program meant to comply with Michigan Occupational Safety and Health Administration's (MIOSHA) General Industry Safety Standard *Part 85: The Control of Hazardous Energy Sources*, and *Part 40: Electrical Safety-Related Work Practices*.

As an employer, Michigan State University (MSU) must:

- Develop and implement a formal, written lockout tagout (LOTO) program.
- Train personnel in the LOTO program.
- Enforce the program to ensure hazardous energy is controlled during work.

The MSU Lockout/Tagout Energy Control Program describes business unit responsibilities and contains standard procedures to assist business units with compliance.

Each Business Unit is responsible for implementing and enforcing its own LOTO procedures and forms that cover the equipment and hazards unique to their area.

1.1 Version

Revision	Issued	Changes
R000	07-01-1994	Initial Issue
R001	12-23-2025	Updated program to current standards, added operations locks

Reviewed



1.2 Scope

This program applies to all MSU personnel when working in, on, or around machines or equipment where unexpected or unintended motion, energization, startup or release of stored energy has the potential to injure the employee. Visitors are not authorized to perform work on or near locked out equipment. Contractors must follow their employer's lockout-tagout program. Specific rules for Contractors are located in *Section 10: Contractors* of this program.

1.3 Exceptions

This program does not apply to work on cord-connected electrical equipment for which exposure to hazards of unexpected energization or start-up of the equipment is controlled by unplugging or detaching the cord from the energy source. The unplugged/detached cord must be under the exclusive control of the personnel conducting the service or maintenance activities.

Repair, troubleshooting, and set-up adjustments performed on energized equipment are exempted only when the work practices used protect employees from exposure to hazardous energy and the work has been authorized through an approved procedure.

Routine service and maintenance activities that do not require exposure to hazardous energy sources (example: filter changes) are exempt from this program.

Where hot taps are required by the scope of work, the department shall develop hot tap procedures acceptable to MSU EHS prior to such work being conducted.

2 RESPONSIBILITIES

2.1 Employees

- Employees identified by their Supervisor shall be instructed in the significance of the lockout and tagout procedures, as well as how to use those procedures, through approved training. Only Authorized Employees, as defined in *Section 13*, may lockout or tagout machines or equipment.
- No employee shall attempt to start, energize, or use machines or equipment that has been locked out.
- No employee shall apply or remove another employee's lock or tag.

2.2 Supervisors and Principal Investigators

- Supervisors shall provide LOTO locks and tags for Authorized Employees who will be performing LOTO.
- Supervisors shall ensure each Affected Employee and any other personnel whose work operations are or may be in the areas where LOTO is being performed are instructed in the purpose and use of the lockout or tagout procedures. Affected Employees shall be notified by the Authorized Employee whenever a lockout or tagout will occur, as well as when the equipment is being placed back in service.

2.3 Deans, Directors, and Chairs

- Delegate responsibility for management of LOTO Energy Control Procedures to appropriate Supervisors and/or Principal Investigators.



2.4 Environmental Health and Safety

- Developing, coordinating, and maintaining the MSU Energy Control Program in accordance with MIOSHA requirements.
- Providing consultation and assistance to departments to comply with the requirements of this program.
- Providing or coordinating LOTO training to Authorized Personnel and maintaining appropriate training records.
- Annual review of the LOTO program for accuracy and ensuring compliance with regulatory requirements and current industry best practices.

2.5 MSU IPF Key Shop

- Manage LOTO program locks and key cores in a secure manner, recording individual lock assignments.
- Support abandoned lock removal procedures.

2.6 Contractors

- Providing applicable MSU departments and the MSU Contractor Safety Manager with company accepted LOTO program and policies.
- Providing contractor owned energy isolation equipment including locks, tags, and hasps.
- Ensuring that lockout devices that have been put in place are only removed by the Authorized Personnel who placed them.
- Following any previously developed University department equipment specific LOTO procedures for equipment the contractor is servicing. If no equipment specific LOTO procedures have been previously developed, the MSU point of contact, MSU EHS Staff, and outside contractor will assess the equipment and develop an equipment specific LOTO procedure.

3 EXEMPTION TO WRITTEN ENERGY CONTROL PROCEDURES

If the following eight conditions are *all* met, written energy control procedures are not required:

1. The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down which would endanger personnel;
2. The machine or equipment has a single energy source which can be readily identified and isolated;
3. The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment;
4. The machine or equipment is isolated from that energy source and locked out during servicing or maintenance;
5. A single lockout device will achieve a locked-out condition;
6. The lockout device is under the exclusive control of the Authorized Employee performing the servicing or maintenance;
7. The servicing or maintenance does not create hazards for other personnel; and
8. There have been no accidents involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

If *all eight* of the above conditions are met, the user can fill out the *Partial Exemption Worksheet* found in [Appendix A: Partial Exemption Worksheet](#). This completed checklist may be used to satisfy the requirement to establish written lock out procedures found in Section 4.



4 WRITTEN ENERGY CONTROL PROCEDURES

Where the Partial Exemption described in *Section 3* does not apply, written procedures shall be developed, documented, and utilized for the control of potentially hazardous energy. The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance.

Written Energy Control Procedures must include:

- A specific statement of the intended use of the procedure;
- Specific procedural steps for shutting down, isolating, blocking, and securing machines or equipment to control hazardous energy;
- Specific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them; and
- Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

4.1 Written Process for the Application of Lockout/Tagout Controls

In addition to or as part of the above requirements, the Written Energy Control Procedures *shall* cover the following elements and actions and *shall* be done in the following sequence:

4.1.1 Preparation for shutdown

Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

Affected employees shall be notified by the employer or authorized employee of the application and removal of lockout devices or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

4.1.2 Machine or equipment shutdown

The machine or equipment shall be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

4.1.3 Machine or equipment isolation

All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

4.1.4 Lockout or tagout device application

Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees. Lockout devices, where used, shall be affixed in a manner to that will hold the energy isolating devices in a "safe" or "off" position. Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited. Where tagout devices are used with energy isolating devices designed with the capability of being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached.



4.1.5 Stored energy

Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe.

If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

4.1.6 Verification of isolation.

Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.

4.2 Written Process for Removal of Energy Control Devices

The following steps shall be performed in the given sequence by the Authorized Employee(s) for the removal of lockout or tagout devices and the restoration of energy to the machine or equipment:

4.2.1 Release from lockout or tagout.

Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:

- The work area shall be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact.
- The work area shall be checked to ensure that all employees have been safely positioned or removed.
- After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.

4.2.2 Lockout or tagout devices removal.

Each lockout or tagout device shall be removed from each energy isolating device by the employee who applied the device.

4.3 Written Process for Testing or Re-positioning Equipment

In situations in which LOTO devices must be temporarily removed from the energy isolating device to test or position the machine, equipment, or component thereof, the following sequence of actions shall be followed:

- 1) Clear the machine or equipment of tools and materials;
- 2) Notify and remove all employees from the machine or equipment area;
- 3) Remove the LOTO devices;
- 4) Energize and proceed with testing or positioning; and
- 5) De-energize all systems and reapply energy control measures to continue the servicing and/or maintenance.



4.4 Tagout-Specific Requirements

A tagout system may only be utilized when an energy-isolating device cannot be locked out. The same process used in *Section 4.1* applies when using a tagout system. Additional safety measures must also be taken to reinforce the tagout system, reducing the likelihood of inadvertent energization. Examples include:

- Removal of an isolating circuit element; Blocking of a control switch; Opening of an extra disconnecting device; Removal of a valve handle;
- Training of personnel must include the following: tags are warning devices but do not provide the physical restraint of a lock, a tagged device should never be bypassed or removed, the tag's warning ignored, or safety measures defeated.

5 GROUP LOCKOUT/TAGOUT PROCEDURES

Group lockout/tagout is a frequent requirement at the University. Several options and configurations are presented below, and groups may select the most appropriate arrangement for their needs. At all times, *each employee in the group needs to affix their personal lockout or tagout device as part of the group lockout procedure*. The placement of locks is always for personal protection, and this requirement provides each employee with direct control over their own protection, rather than having to rely on others.

When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device.

These group lockout or tagout approaches require:

- Primary responsibility is vested in an authorized employee for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock);
- Provision for the authorized employee to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment and
- When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility to an authorized employee designated to coordinate affected work forces and ensure continuity of protection; and
- Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work.

6 SHIFT CHANGES

When it becomes necessary for one employee to transfer the job to another, he/she shall coordinate replacement of locks/tags to assure that the equipment is continually controlled.

Shift-change coordination shall include:

- Changing locks or tags;
- Notification of start-up and testing to be performed;
- Changes in the job that affect the lockout or tagout procedures;
- The person transferring the job must make sure that the lock or tag of another Authorized Employee is attached before removing his/her personal lock;



7 LOCK AND KEY CONTROL

7.1 Personal Lock Requirements

Standardized, dedicated, and uniquely identified locks shall be made available by their Supervisor, to each Authorized Employee who could be endangered by the activation of equipment during maintenance, set-up, repair, service, or other associated activities. Locks issued to individuals shall be **green** in color.

7.2 Operations Locks Requirements

Operations locks shall be **red** in color and clearly identified by all three of the following:

- The group or team responsible for its application;
- A unique identifier for each individual lock;
- Contact information for the group.

7.3 Control of Keys

Each lock shall have a unique key. Keys shall be issued only to the lock recipient.

7.4 Locks and Keys for External Users

Non-MSU personnel may not be issued LOTO locks or keys through the MSU IPF Key Shop. Contractors and outside employers must provide all equipment necessary to conduct LOTO operations.

8 ENERGY ISOLATION DEVICES

Locks, tags, gang hasps, chains, gate valve locks, ball valve locks, wedges, key blocks, adapter pins, self-locking fasteners, and any other equipment necessary for complying with this Program shall be provided to employees by the supervising department. LOTO devices shall be identifiable to the authorized employee; shall be the only device(s) used for controlling energy; and shall not be used for other purposes.

8.1 LOTO Device Criteria

LOTO devices must meet the following criteria:

8.1.1 Durable

- LOTO devices shall be capable of withstanding the environment for the expected duration of the LOTO;
- Tags shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible; and
- Tags shall not deteriorate when used in corrosive environments such as where acid and alkali chemicals are handled and stored.

8.1.2 Standardized

- Lockout devices shall be standardized in at least one of the following criteria: color; shape; or size; as specified in *sections 7.1 and 7.2* and
- Tags shall use the same print and format.



8.1.3 Substantial

- Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools; and
- Tags, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. The means of tag attachment shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all environment-tolerant nylon cable tie.

8.1.4 Identifiable

- LOTO devices shall indicate the identity of the employee applying the device(s); and
- Tags devices shall warn against the specific hazards if the machine or equipment is energized and shall include a hazard statement such as the following: "Do Not Start.", "Do Not Open.", "Do Not Close.", "Do Not Energize.", or "Do Not Operate."

8.2 Identification of Energy Isolation Points

Equipment shall be clearly marked to identify all energy isolation points. Any energy isolation points that cannot readily be labeled shall be brought to the attention of the appropriate Supervisor for resolution.

9 TRAINING

To ensure maximum awareness of safe work methods, the following personnel shall receive training in the lockout/tagout procedures:

- All Authorized Employees shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- All Affected Employees shall be instructed in the purpose and use of the LOTO program.
- All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.
- The Supervisor of Affected Employees shall also be instructed in the purpose and use of the LOTO program.
- All new and transferred personnel must receive this training prior to their first work assignment requiring lockout/tagout.
- Periodic retraining shall be conducted whenever inspections show that there are deviations from or inadequacies in personnel knowledge of the lockout/tagout procedures; if there is a change in job assignment; if there are changes in machines, equipment or processes that present a new hazard; or when there is a change in energy control procedures.

10 CONTRACTORS AND OUTSIDE PERSONNEL

All outside personnel/contractors who will perform work requiring energy control methods must be informed of all university lockout/tagout safety program requirements. The outside employer must ensure that outside employees understand and comply with all elements of the MSU Lockout/Tagout Energy Control Program.

In addition, the outside employer must also inform the university department of their company's lockout/tagout procedures.



Contractors must follow MSU equipment-specific procedures. If there are no existing equipment-specific procedures, procedures must be developed with Authorized MSU EHS personnel prior to locking and tagging out equipment.

Contractors who do not have an employer LOTO program shall not perform any work that is covered by this program.

11 LOCKOUT/TAGOUT DEVICE REMOVAL PROCEDURES

Individual lockout/tagout devices may only be removed by the person who applied the device. In the even that a device must be removed and the employee is not able to remove it, the procedure below must be followed.

11.1 Contactable

When a lockout device or tagout has been left in place by an employee **who can be contacted but is otherwise unavailable**, it may be removed only by the Supervisor following the procedure below:

- Conduct a thorough inspection of the machine or equipment;
- The person removing the lock and the Authorized Employee that initially placed the LOTO must complete the Lockout/Tagout Device Removal Form, found in Appendix A, and place it on file in the Safety Office;
- Ensure that the Authorized Employee who initially applied the lockout device or tagout is informed of its removal and completes his/her portion of the Lockout/Tagout Device Removal Form prior to the start of their next work shift.

11.2 Non-Contactable

When a lockout/tagout devices has been left in place by a person who CANNOT be contacted it may be removed only by the Division Directors following the procedure below:

- Conduct a thorough inspection of the machine or equipment;
- Using the Lockout/Tagout Device Removal Form, found in Appendix A, provide written documentation of the reason for removing the lock and documentation of all efforts to contact and notify the employee about the procedure and place it on file in the IPF Key Shop;
- Ensure the Authorized Employee who initially applied the lockout device or tagout is informed of its removal and completes his/her portion of the Lockout/Tagout Device Removal Form prior to the start of their next work shift.

If a lock that needs to be removed belongs to a contractor, the Lockout/Tagout Device Removal Form, found in Appendix A, must be completed. The University contact for the contractor must also be notified so that appropriate follow-up from the lock removal can occur prior to the start of the next shift for the employee whose lock was removed.

12 LOCKOUT/TAGOUT PROCEDURE REVIEW

Periodic inspections and review of energy control procedures will be performed at least annually and will conform to MIOSHA Part 85 (c)(6)(i-ii).

13 DEFINITIONS

Affected Employees: Any MSU personnel whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.



Associated Activities: Any work such as erecting, installing, constructing, adjusting, setting up, lubricating, tool changing, inspecting, or servicing of machines, equipment, or process.

Authorized Employee: Any MSU personnel given the authority and responsibility to lock out or tag out machines or equipment in order to perform servicing or maintenance on that machine or equipment. Upon receipt of appropriate training an Affected Employee becomes an Authorized Employee when that employee's duties include performing servicing or maintenance on machines or equipment covered under this program.

Competent Person: A person knowledgeable in LOTO regulations, capable of identifying proper program implementation. This person shall be capable of identifying existing and predictable hazards as related to the implementation of the LOTO. This person shall have authority to take prompt corrective measures to eliminate these hazards.

Capable of Being Locked Out: An energy-isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it, which provides for personnel safety through energy isolation. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability. According to MIOSHA Part 85 all equipment installed or significantly upgraded after January 2, 1990 must be lockable for the purposes of LOTO.

Disconnecting Means: A device that cuts off (isolates) the source of power to machines or equipment such as an electrical disconnect switch or an approved air valve.

Energized: A device is energized if it is connected to an energy source or containing residual or stored energy.

Energy Control Procedures: Written procedures developed, documented, and utilized for the control of potentially hazardous energy to protect employees from injury due to unexpected/unintended motion, energization, start-up, or release of stored energy from the machine, equipment, or process.

Energy Control Program: a program consisting of energy control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, startup or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source and rendered inoperative.

Energy Isolating Device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

Energy Source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Entry Point of Power: The point at which energy enters the system, machine, or unit such as the main electrical disconnect.

Exclusive Control: An Authorized Employee has Exclusive Control of a device by LOTO or by direct line-of-sight of the isolation device.

Hot-tap: A procedure used in repair, maintenance and service activities which involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. Hot-tap is often associated with the installation of a valve or line extension to a pressurized system such as a pipe.

Job Lock: A Job Lock, also known as an Supervisory Lock, Operations Lock, or Production Lock is a LOTO continuity device intended to ensure the continuity of employee protection during shift and personnel changes. In lieu of identifying the authorized employee who applied the LOTO continuity device, the party responsible (such as operations department, maintenance department, etc) for the application and removal of the continuity devices.

Lockout: The placement of a lockout device on an energy-isolating device, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.



Lockout Device: A device that utilizes a positive means, such as a lock, either key or combination type, to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

LOTO: Means Lockout/Tagout.

Normal Production Operations: The utilization of a machine or equipment to perform its intended production function.

Power: Any type of energy that can operate equipment, cause movement, or cause injury directly from the energy source. Common types of power are electricity, air or gas under pressure, gravity, springs, oil or water under pressure, and steam.

Primary Authorized Employee: The employee exercising primary responsibility for implementation and coordination of the overall LOTO of hazardous energy sources for equipment to be serviced under a group lockout configuration.

The Primary Authorized Employee also has the responsibility to ensure continuity of protection with respect to multi-shift energy isolation (e.g., through the use of group continuity devices, such as the "Operations Lock" procedures specified in section 7.3.4)

Principal Authorized Employee: A principal authorized employee is designated for each workforce or crew participating in a group lockout where more than one crew, craft, or department is involved. Each principal employee is responsible to the primary authorized employee for maintaining accountability and for the individual exposure status of each employee in that specific group.

Residual Electrical Power: Power capacitors, inductors and electric or magnetic fields are examples that may have residual power if not properly dissipated.

Residual Pressure: The differential pressure remaining within a component after the pressure source is closed off.

Servicing and/or Maintenance: Servicing and/or maintenance workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where personnel may be exposed to the unexpected energization or start-up of the equipment or release of hazardous energy.

Tagout: Tagout is the placement of a tagout device on any energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed. A tagout system can only be used when lockout cannot be used and it can be demonstrated that the level of safety equivalent to that obtained by using a lockout program is provided.

Tagout Device: A tagout device is a prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.



14 APPENDIX A: PARTIAL EXEMPTION WORKSHEET

PARTIAL EXCEPTION WORKSHEET

DATE:

COMPLETED BY:

MACHINE OR EQUIPMENT COVERED BY THIS WORKSHEET

ALL QUESTIONS MUST BE ANSWERED "YES"
for the partial exemption criteria to be met.

	YES	NO	COMMENTS
1. The machine/equipment has no potential for stored or residual energy after shutdown which would endanger an employee.	—	—	_____
2. The machine or equipment has a single energy source, that is identifiable and capable of isolation.	—	—	_____
3. The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.	—	—	_____
4. The machine or equipment is isolated from that energy source and locked out during service or maintenance.	—	—	_____
5. A single lockout device will achieve a lockout condition.	—	—	_____
6. The lockout device is under the exclusive control of the authorized employee performing the service or maintenance.	—	—	_____
7. The servicing or maintenance does not create hazards for other employees.	—	—	_____
8. The employer utilizing the exception, has had no accidents involving the unexpected activation or energization of the machine or equipment during service or maintenance.	—	—	_____



15 APPENDIX B: LOCKOUT/TAGOUT DEVICE REMOVAL FORM

1. General Information

Requestor:	
Absent Person's Supervisor:	
Responsible Authorized Employee (For Group Lockout):	
Reason lock must be removed:	

2. Information of Absent Person Who Owns the Lock

Absent Person:	Type of LOTO Lock: <input type="checkbox"/> Personal LOTO Lock <input type="checkbox"/> Responsible Authorized Employee LOTO Lock <input type="checkbox"/> Group LOTO Lock
Absent Person's Phone No.:	
Absent Person's Signature:	

3. Equipment Information

Equipment Name:	Equipment Location:
Isolation(s):	Reason Equipment Was Locked Out:

4. If the Absent Person is a Contractor

NOT A CONTRACTOR

Contractor Company:	Is the LOTO Plan on file with EHS? <input type="checkbox"/> Yes <input type="checkbox"/> No (if no, a copy of the plan must be reviewed prior to approval)
Does the Contractor LOTO Plan contain any specific requirements for lock removal? <input type="checkbox"/> Yes <input type="checkbox"/> No	List any specific requirements for lock removal.

