LOCKOUT / TAGOUT PROGRAM

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APPROVAL:

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DATE
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1 POLICY

Machines and equipment capable of causing injury due to unexpected energization or start up of the machinery and equipment, or the release of stored energy during servicing and maintenance shall be locked out/tagged out in accordance with this policy.

2 SCOPE

This policy only applies to the control of energy during servicing and/or maintenance of machines and equipment. Normal production operations are not covered by this policy unless an employee is required to remove or bypass a guard or other safety device or is required to place any part of his or her body into a point of operation or where an associated danger zone exists during a machine operating cycle.

Exception: Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations are not covered if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection.

This policy does NOT apply to the following:

- Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by unplugging the equipment from the energy source and the plug remains under the exclusive control of the employee performing the servicing or maintenance; and

- Hot tap operations involving transmission and distribution systems for substances such as gas, steam, water, or petroleum products when they are performed on pressurized pipelines that the employer demonstrates that continuity of service is essential; shutdown of the system is impractical; and documented procedures are followed, and special equipment is used which will provide proven effective protection for employees.

3 ENERGY SOURCES

The potential sources of energy from equipment and process include, but are not limited to, the following:

- Electricity;
- Pneumatic and hydraulic lines in the machinery;
• Spring tension or compression;
• Compressed air;
• Steam and condensate lines under pressure;
• Suspended parts;
• Chemical;
• Nuclear;
• Thermal;
• Gas;
• Water; and
• Vacuum.

4 AUTHORITY AND RESPONSIBILITY

4.1 Environmental Health and Safety (EH&S) Manager is responsible for:

• Reviewing the overall Lockout/Tagout Program;
• Conducting general lockout/tagout training and retraining as required;
• Conducting annual lockout/tagout inspection;
• Maintaining all training records.

4.2 Plant Operations and Maintenance (POM) Manager is responsible for:

• Overseeing, or appointing a supervisor, all phases of the lockout/tagout program;
• Developing equipment specific energy control procedures as needed;
• Maintaining, revising, and updating these procedures;
• Providing all necessary lockout/tagout equipment, including issuing locks and tags;
• Providing specific lockout/tagout training for employees;
• Conducting annual lockout/tagout inspections with EH&S Manager;
• Maintaining any pertinent records (e.g., energy control procedures).

4.3 Employees are responsible for:

• Complying with all aspects of this program and any specific energy control procedures developed as a result of program implementation;
• Applying energy control procedures during equipment/machinery servicing and maintenance;
• Reporting any necessary changes to an existing energy control procedure or the need to develop a new procedure; and
• Reporting any deviations of this program to POM Manager/Supervisor.
5 LOCKOUT/TAGOUT DEVICES

All lockout/tagout devices shall be singularly identified; shall be the only devices used for controlling energy; shall NOT be used for any other purposes. The POM Manager will ensure all devices meet the requirements of the standard.

The lockout device consists of a specific color lock (padlock) which is opened by key. Locks (padlocks) are color-coded per job assignment within the POM Department to assist in identifying users. The authorized person applying a lock shall keep the key for that lock in their possession until the lock is removed. The following color-codes are used at the MBL:

Lock colors are as follows:

- Maintenance Supervisor Orange
- Electrician/EMT Blue
- Plumber Red
- Maintenance Technician Purple
- HVAC Technician Yellow
- Saltwater Technician Black
- MRC Systems Personnel Green

Each employee will be issued multiple personal locks of the same color, such that multiple pieces of equipment can be locked out at the same time.

The tagout device consists of a 6 inch by 3 inch laminated tag which can be attached using one nylon cable tie. These white tags are labeled “Danger – Do Not Operate”. Tags must be filled out properly with Name and Date initiated written clearly. The opposite side of each tag reads “This energy source has been LOCKED OUT! Unauthorized removal of this lock/tag may result in immediate discharge.” These tags are not to be substituted or used for any other purpose.

6 GENERAL LOCKOUT PROCEDURES

The following general procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated
from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start up of the machine or equipment or release of stored energy could cause injury.

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this general procedure or an equipment specific procedure. All employees, upon observing a machine or piece of equipment which is locked out shall not attempt to start, energize, or use that machine or equipment.

6.1 Sequence of Lockout

1. 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. The authorized employee shall 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. If the machine or equipment is operating, shut it down by the normal stopping procedure (e.g., depress the stop button, open switch, close valve).

4. De-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

5. Lock out the energy isolating device(s) with assigned individual lock(s) and attach tag with name and date clearly written.

6. Dissipate or restrain stored or residual energy (e.g., capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure) using methods such as grounding, repositioning, blocking, or bleeding down.

7. 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. CAUTION: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

8. The machine or equipment is now locked out.
6.2 **Restoring Equipment to Operation**

1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.

2. Check the work area to ensure that all employees have been safely positioned or removed from the area.

3. Verify that the controls are in neutral.

4. Remove the lockout/tagout devices and reenergize the machine or equipment. Personnel may ONLY remove locks assigned to them. Never remove another employee’s lock.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

7 **TAGOUT PROCEDURES**

A tagout only system shall ONLY be used when an energy isolating device is not capable of being locked out and upon the approval of POM Manager.

When a tagout system is used, employees shall understand the following limitations:

- Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.
- A tag is only to be removed by the authorized person responsible for it, and is never to be bypassed, ignored, or otherwise defeated.
- Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.
- Tags must be securely attached so that they cannot be inadvertently or accidently detached during use.

8 **REMOVING ABANDONED LOCKS/TAGS**

Each lockout or tagout device shall ONLY be removed from each energy isolating device by the employee who applied the device.
However, when the authorized employee who applied the lockout or tagout device is not available to remove it, that device may only be removed by the POM Manager or Supervisor. First the Manager or Supervisor shall verify that the employee who applied the device is not at the MBL by:

- Contact authorized employee by radio to determine whether the employee is still at MBL;
- Physically attempt to locate the employee; and
- Attempt to make contact with the employee by cellphone.

When the employee still CANNOT be located:

- Ensure the authorized employee has knowledge regarding the removal of the lockout/tagout device before resuming work at the facility prior to their next scheduled shift;
- The employee shall not be permitted to undertake any future lockout task until the circumstances surrounding the incident have been discussed between the employee and POM Manager/Supervisor; and
- The employee shall retrieve their removed lock from POM Manager/Supervisor.

9 OUTSIDE CONTRACTORS

Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this policy, POM Manager/Supervisor and outside contractors shall inform each other of their respective lockout/tagout procedures.

POM Manager/Supervisor shall ensure that the employees understand and comply with the restrictions and prohibitions of the outside employer’s energy control program.

10 GROUP LOCKOUT

When servicing and/or maintenance is performed requiring multiple disciplines (such as an electrician and plumber), they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout/tagout device.

Group lockout devices shall be used in accordance with the general procedures listed in this policy and include the following specific requirements:

- One authorized employee shall be designated to have primary responsibility for a set number of employees working under the protection of a group lockout device.
• Provision for the authorized employee to ascertain the exposure status of the individual members with regards to the lockout of the machine or equipment.

• The authorized employee shall coordinate the lockout/tagout to ensure that all control measures are applied and there is continuity of protection for the group.

• Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when they begin work, and shall remove those devices when they stop working on the machine or equipment being serviced or maintained.

11 PROGRAM INSPECTION

The Environmental Health and Safety Manager along with the POM Manager shall conduct periodic inspections of the energy control procedure at least annually to ensure that the procedure and the requirements of this policy are being followed.

This inspection shall be utilized to correct any deviations or inadequacies identified and shall include a review between the inspector and each authorized and affected employee.

12 TRAINING

Environmental Health and Safety shall conduct general lockout/tagout training to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees. Training on equipment specific procedures shall be conducted by the POM Manager/Supervisor.

Each authorized employee shall receive training in the following:

• Recognition of applicable hazardous energy sources;
• Type and magnitude of the energy available in the workplace;
• Purpose and use of the energy control procedure;
• Methods and means necessary for energy isolation and control; and
• Nature and limitations of tags.

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 or tagged out.
Each authorized and affected employee will receive initial training prior to their first assignment to a job involving exposure. Retraining shall be provided whenever there is a change in an employee’s job assignment(s), a change in machines, equipment or processes that present a new hazard, employer believes that there are deviations from, or inadequacies in the procedures, or when there is a change in the energy control procedures.

Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever Environmental Health and Safety has reason to believe that there are deviations from or inadequacies in the employee’s knowledge or use of the energy control procedures.

All training records shall be maintained by Environmental Health and Safety Manager.