

SECTION 12: LOCK-OUT / BLOCK-OUT

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12 LOCK-OUT / BLOCK-OUT

1. PURPOSE

The accidental or unexpected starting of any machinery or electrical equipment can cause injury or death.

Before any inspections or repairs are made on electrical equipment, power should be turned off at the switch box and the switch locked in the OFF position (locked-out). The switch or controls should be securely tagged to show that the equipment or circuits are being worked on.

In addition, mechanical parts generally must be mechanically blocked to prevent inadvertent movement during cleaning, servicing, or adjusting operations (block-out). If the machinery or equipment requires movement for the specific task, the hazard must be minimized through use of extension tools (extended swabs, brushes, scrapers, etc.). Employees must be properly trained in the use of such tools.

Machinery being inspected or repaired must be isolated from all potentially hazardous energy sources, which must be locked out and blocked out. The machinery must also be free from all residual or accumulated energy before employees may perform any servicing or maintenance activities, if the unexpected release of stored energy could cause injury.

2. RESPONSIBILITY

It is the responsibility of management to approve all hazardous energy control procedures. However, it is the responsibility of all employees to follow the proper procedures. All Maintenance and Line Service employees will be instructed in the safety significance of the lock-out/block-out procedures as well as how to use those procedures by the Director of Maintenance or his/her designee.

Only authorized employees may lock-out/block-out machines or equipment. Authorized employees are identified on each hazardous energy control procedure form. In addition, affected employees or their job titles are identified on each hazardous energy control procedure form. They will be notified by the authorized employees whenever a lock-out or block-out will occur, as well as when the equipment is being placed back in service.

Approvals of hazardous energy control procedures can be given by the following:

- Director of Maintenance
- Workshop Manager

3. EQUIPMENT SURVEY

The Director of Maintenance ("DOM") or his/her designee is responsible for identifying all energy sources, including hidden ones. It will also be the DOM's responsibility to identify all equipment utilized in the workplace, the energy type and magnitude.

NOTE: A diagram of all energy sources including their energy type and magnitude will be prominently displayed on the Hangar wall next to the eye-wash station.

The DOM will locate and mark the disconnecting means with a sign or sticker "**LOCK-OUT HERE**" to help direct workers to correct lock-out devices.

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4. EQUIPMENT LISTING

Electrical Line	Equipment	Volts	Sticker On

5. TRAINING

Training will be given on lock-out/block-out for all equipment or machines by the Director of Maintenance or his/her designee.

5.1 Topics to be Covered

- Review of the requirements of 8 CCR § 3314, Control of Hazardous Energy
- Types and magnitudes of energy sources
- Limitations of tag-out
- Lock-out and procedures for the isolation of energy sources
- Block-out procedures
- Safe maintenance and handling of extension tools (extended swabs, brushes, scrapers, etc.) when their use is necessary
- Procedures for removing locks and tags
- Procedure for restoring energy

Authorized employees will be given training before any involvement in lock-out/block-out procedures. Affected employees will be given instruction in their Basic Indoctrination training at the time of hiring.

Retraining will be provided whenever there is a change in job assignment, whenever there is a change in equipment or processes that would create a new hazard, and whenever a change would occur in this company's hazardous energy control procedures.

A list of trained employees and the dates of their training will be maintained by the Director of Maintenance.

5.2 Preparation for Lock-Out / Block-Out

Obtain the proper hazardous energy control procedure for the equipment or machine to be locked-out and/or blocked-out. Identify all affected employees by name (or job title) who may be involved in the impending lock-out and tag-out.

Authorized employees must be certain which switch, valve, or other energy isolating device applies to the equipment being locked out. More than one energy source (electrical, mechanical, etc.) may be involved. Any questions concerning sources must first be cleared by employees with their supervisors.

5.3 Sequence for Lock-Out Procedure

All equipment must be effectively locked out in the following sequence to protect against accidental operation that could cause injury to personnel:

1. Issue a suitable lock to each maintenance person that has the individual worker's name or other identification and a key only for that worker.
2. Notify all affected employees that a lock-out is required and the reasons for the lock-out.
3. Make sure no one is operating the machinery before turning the power off and that the machine operator is informed of the lock-out in advance. Sudden power loss could cause an accident and serious injuries.
4. Shut down operating equipment by normal stopping procedure (e.g., depress stop button or open toggle switch).
5. Operate the switch, valve, or other isolating devices so that the equipment is isolated from its energy sources.

6. Stored energy (e.g., in capacitors, springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam, or water pressure) must be dissipated or restrained by repositioning, blocking, bleeding down, etc.
7. Lock out the energy-isolating devices with assigned individual locks.
8. Place non-reusable tags capable of enduring at least 50 pounds. The tags must state:
 - the reason for the lock-out;
 - the name of the employee working on the equipment and how to reach the person; and
 - the date and time the tag was placed.

Note: Do not use tags alone! Use tags in addition to locks!

9. Test equipment to ensure that power is OFF:
 - first, ensure that no personnel are exposed; and
 - next, check that all energy sources are disconnected and equipment is non- operational by checking the push button or other normal controls.
10. The equipment is now locked-out.

Caution: Return operating controls to the “neutral” or “off” position after the test.

5.4 Restoring Equipment to Normal Production Operation

To restore equipment to normal production operation:

1. After the job is finished and equipment is ready for normal operations, check the area to ensure that no one is exposed.
2. Ensure that all tools have been removed from the equipment and that all guards have been reinstalled.
3. When equipment is clear, remove all lock-out or block-out devices and tags.
4. Operate the energy isolating devices to restore energy to the machine or equipment.

6. ANNUAL INSPECTION

At least annually, the Dreamline must conduct a periodic inspection of the energy control procedures for all machines and equipment. The periodic inspection may be performed only by an authorized employee other than the one using the energy control procedure being inspected. The periodic inspection must be conducted to identify and correct any deviations or inadequacies. The periodic inspection must include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being inspected.

The certification must identify:

- the machine or equipment on which the energy control procedure was being utilized;
- the date of the inspection;
- the employees included in the inspection; and
- the person performing the inspection.

The DOM will maintain a record of annual Lock-Out / Block-Out inspections that lists:

- The Machine / Equipment
- Date of Inspection
- Names of Employees trained (initially or recurrently)
- The Name of the Inspector.

Note: The Inspector must NOT be the one who regularly uses particular the lock-out / block-out equipment.

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