Portland State University
Electrical & Computer Engineering
Power Engineering Laboratory

- Lock-out/Tag-out Procedure[1] -

The following procedure establishes the minimum requirements for lockout of energy sources that could cause injury to personnel. All lab users will comply with these procedures. All equipment and/or circuits will be locked out to protect against accidental or inadvertent operation when such operation of the equipment and/or circuits could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device bearing a lock. Any lab user found to be working, or causing others to work on, equipment and or/circuits that, in the opinion of management should have been locked out, will be ask to cease work and review this lock-out procedure. Repeat offense may result in expulsion from the lab.

Lockout Responsibility

The primary responsibility for the proper lockout of equipment belongs to the project Instructor and GTAs. However, all lab users are responsible for ensuring that proper lockout procedures are followed at all times.

Preparation for Lockout of Circuits and Equipment

Lab users must be certain as to which switch, valve, or other energy isolating devices applies to the equipment locked. More than one energy source (electrical, mechanical, or others) may be involved.

Sequence of Lockout Procedures

Note: In the following steps, when more than one individual is involved with the project and required to lock out the equipment, each lab user will place their own personal lock on the energy isolating devices. A lock for each lab user is the required method for locking out energy sources.

1. Notify all affected lab users that a lockout is required.

2. If the equipment is in operation, shut it down by the normal stopping procedures.

3. Operate the switch, valve, or other energy isolating devices so that all energy sources (electrical, mechanical, hydraulic, etc.) are disconnected or isolated from the equipment and/or circuits. Stored energy, such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc., must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.

4. All affected lab users are then required to lockout the energy devices with their individual lock.

5. After insuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the operating controls to make certain the equipment will not operate. In the event that electrical circuits have been locked out, insure that the circuits are de-energized by applying an appropriate voltage tester that itself has been tested on live circuits. Be sure to return all operating controls to the neutral position.

6. The equipment and/or circuits are now locked out.

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[1] Source: http://www.webworldinc.com/wes-con/lockout2.htm

Initial _____

Restoring Equipment and/or Circuits to Service

1. When the job is complete and the equipment are ready for testing or normal service, check the equipment and/or circuits to insure that no one is exposed.

2. When the equipment is clear, remove all locks. The energy isolating devices may be operated to restore energy to the equipment and/or circuits.

Initial _____