



Instructor Guide

Lockout

Topic Overview (why the topic is important to the students)

Workplace injuries can be caused by unexpected energization or start-up of machines or equipment, or release of stored energy. The purpose of de-energization and lockout is to prevent the release of energy that could cause injury or death. A lock or locks are used to make sure that equipment is not accidentally or inadvertently turned on while workers are performing maintenance on it. Maintenance is any work performed to keep machinery or equipment in a safe operating condition. This includes installing, repairing, cleaning, and lubricating the equipment, as well as clearing obstructions to the normal flow of material.

Demonstration and Discussion Topics

- **Discuss** the types of equipment in the shop that require lockout and the types of lockout used: locks on plugs, retained keys, circuit breaker tags, vehicle ignition, etc.
- **Discuss** how lockout injuries can occur, and the types of injuries – electrocution, burns, cuts, bruises, crushing, amputation, and death.
- **Tour the shop** with the students, pointing out these hazards.
- **Distribute** the student handout.
- **Review** the safety tips.
- **Explain** what can be done in the workplace to minimize the risk of injuries from failing to lockout (e.g., written procedures, lockout clearly marked).
- **Make it real.** Tell at least two stories of injuries from your experience, or use the following examples:
 - A worker was testing a fan belt when another worker started the car (key left in ignition). Two of the worker's fingers were amputated by the fan.
 - A worker was killed when he was caught under a vehicle when a hoist (not locked out) was lowered.
- **Discuss** the attitude that “it won't happen to me”. Remind them that an injury can and will happen if they take shortcuts or are careless.
- **Emphasize** that there are different lockout procedures for different types of equipment – students should never operate power, hydraulic, or pneumatic equipment if they don't know the procedure for lockout.
- **Instruct** the students to identify and report any safety concerns about lockout.
- **Answer** any questions or concerns they might have.
- **Set a good example** by working safely at all times.

Resources

- Lockout (available in English, Chinese, Punjabi, Spanish, and Vietnamese)
http://www.worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/lockout.pdf
- Lockout/Tagout Standard
<http://www.ehs.utoronto.ca/Assets/ehs3/documents/LockoutStd.pdf>