LOCKOUT/TAGOUT SAFETY- THE CONTROL OF HAZARDOUS ENERGY

Lockout/Tagout Safety also known as LOTO is the safety program in your organization that has identified energy hazards, created the procedures & policy, and describes the staff that shall be trained and authorized. The objective being: the prevention of injury or death of employees working on or near powered equipment that could be engaged either automatically or inadvertently.

The purpose of this is article is to remind or bring awareness and importance of developing and/or enforcing your lockout program, while keeping in mind the possible consequences of not doing so.

Employees were performing repairs on an 8-ft-diameter pipeline that carried hot oil. They had properly locked and tagged pumping stations, pipeline valves, and the control room prior to beginning repairs. When the work was completed and inspected all lockout/tagout safeguards were removed and all elements were returned to their operating state. At this point, control-room personnel were alerted that the work was completed, and they were requested to start up the system 5 hours earlier than was scheduled.

Two supervisors, not aware of the early start-up, decided to inspect the repairs themselves. They were required to walk inside the pipe with lights in order to perform the inspection. They did not perform any lockout/tagout procedures for the inspection process. They also neglected to notify control-room personnel of their last-minute decision to inspect. As the control-room operators started the system as instructed, oil began to flow through the pipe killing the two supervisors. (*2014, Danica Miller, Wise Businessaware*)

This is just one of many examples of the grave consequences of not utilizing or adhering to a sound lockout/tagout program.

As stated in the January 15, 2008 edition of the EHS Daily Advisor, a web-based safety magazine, dedicated to health and safety: “Make any of these 5 mistakes and not only is your lockout/tagout program in danger, so are you!”

1. **Failure to stop equipment.** While this may seem just common sense, it isn’t, due to some employee attitudes. The Business & Legal Resources (BLR) program notes that some workers value productivity above all else. This is normally a good thing, but not in this case. Others feel that their age or long experience with the equipment lets them work on it without “taking the trouble” to properly safeguard it. Either attitude can lead to the same, possibly deadly, result.

2. **Failure to disconnect from the power source.** In the case of electrical equipment, some workers feel that simply operating the on/off switch is all it takes to be safe. They discount that the switch may be defective or that power may find its way through a short circuit or other source - until they are shocked to learn that it can.
3. **Failure to drain residual energy.** Ask workers why TV sets carry a warning about trying to open the case even if the device is disconnected. You know, and they should, that it's because many electrical devices store power in a capacitor or battery. Even with the plug out, the risk of shock remains. Employees need to expand that concept to other kinds of devices.

   A compressed spring, a hot pipe, a pressurized tank, or even a heavy object hanging overhead also represent energy that continues to exist, even when the initial source of that energy is disconnected. All forms of stored energy must be completely blocked or released to be safe.
4. **Accidental restart of machinery.** Even if one employee knows to shut down equipment before working on it, others may not. The incidence of unknowing workers causing injury to their fellow workers by restarting machines being worked on is high.
5. **Failure to clear work areas before restarting.** Restarting machinery must be handled with as much care as shutting it down and locking it out. A repair tool left in the works to fly out, or a restart while a co-worker remains in the path of danger, represent as great a hazard as not locking out the machine at all.

In summary, performing the necessary pre-work in assessing your operations for possible energy related hazards, putting together machine/operation specific procedures, and a policy in order to set an expectation of adherence as well as consequences for failure to execute constitute a more wholistic approach. Of course, comprehensive training is also needed to ensure the instructor is satisfied the attendants understand the procedures.

Lastly, yet very important; the audit function. Like my old boss used to say, "Inspect what you expect". How else can you know the integrity of your program, as well as identifying the possible "holes" that need correcting?