

LOTO: WHY TAKE A CHANCE WITH ENERGY?

PLAYING LOTTO MAY BE ENERGIZING, BUT ENERGY WITHOUT LOTO IS A FOOL'S GAME

HIERARCHY OF CONTROLS

Always remember that removing the hazard is at the top of the hierarchy of controls. Engineering controls is in the center of the 5-step hierarchy, and using various devices to control hazardous energies is an important part in "isolating people from the hazard."¹

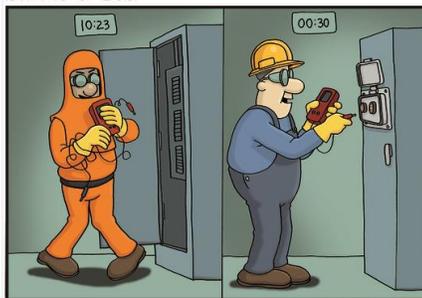
A strong Energy Control program with the right locking and blocking devices saves both life and limb.

¹ Hierarchy of Controls. www.cdc.gov/niosh/topics/hierarchy/default.html

WHAT ARE...

Permanent Electrical Safety Devices

Burnie & Les



"Don't start yet, Les, I almost got it." "And done."

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Burnie & Les showing the difference in time and effort using PESDs.

It's one thing to use warning labels to keep *people away from voltage*, but the ability to keep *voltage away from people* is truly a testament to safety by design.² Using integrated devices, shown above is a voltage-testing device, is putting into practice the Hierarchy of Controls.

To learn more about the use of PESDs, you may read about them here: "How Permanent Electrical Safety Devices Affect Safety."³

² Schiltz, Nick. "Burnie & Les." *Graceport*, 11 May 2019. info.graceport.com/blog/burnie-and-les-make-loto-safer-with-pesds. Accessed 17 Jun 2019.

³ Allen, Phil. "How Permanent Electrical Safety Devices Affect Safety." <https://cdn2.hubspot.net/hubfs/477905/Case%20Studies%20and%20Whitepapers/How%20Permanent%20Electrical%20Safety%20Devices%20Affect%20Safety-1707.pdf>. Accessed 17 Jun 2019.

ENERGY CONTROL TERMS

In a world which instant gratification is almost demanded, and texting obliterating words to ultra-short abbreviations, taking a short cut can lead to a short circuit, which gets you.

29 CFR 1910.147 is the law and provides minimum requirements for the Control of Hazardous Energy, otherwise known as Lock Out / Tag Out (LOTO). One of the first things to know is WHO you are. Given the similarities of these words, pay heed to the important definitions:

- **Affected Employee:** An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
- **Authorized Employee:** A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment.
- **NOTE:** An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

While a majority of people associate LOTO with electricity, one must-know definition is:

- **Energy Source:** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Know who you are, what your responsibilities and energy sources are, as well as the specific energy control procedures for your place of employment, and machines. Thoroughly document all LOTO actions.

In my Science class we were talking about Kinetic and Potential energy. I said aloud "No wonder my mom calls me Kinetic..."

"... I have no Potential"

Program & Procedures

The 1910.147 is quite clear when a Control of Hazardous Energy Program is required, but have you thought of the procedures for equipment which will need LOTO?

Beware of those systems having multiple sources of energy, as these are such that on the spot LOTO actions can kill. For these type situations always have a written LOTO plan, and perhaps include pictures of out of the way places where a switch/valve or other control must be accounted for and locked open or shut as appropriate.

Where LOTO is common, post the written procedure at the work station being locked/tagged out. Where posting may pose additional hazards, label the equipment identifying the location of the written procedure.

Consult maintenance and service manuals to ensure accuracy and sufficient level of LOTO detail. Review manuals, drawings, tags, labels and signs to identify all locations to shut down, isolate, block, and safely release and secure all potentially stored or residual hazardous energies. Make a list of disconnecting means to be locked/tagged.

CLASSIFIEDS

Movie for Energy Control: Tight production on the LOTO program; terminology clarification, positive practices and live action procedures demonstrated. Watch at <https://www.youtube.com/watch?v=je53N3K-noY>

Booklet on Energy Control: OSHA has a booklet on the requirements for the Control of Hazardous Energy. Go to osha.gov and order OSHA 3210-2002.