Logger Safety Initiative Quarterly Training

Why am I receiving this LSI Safety Training Packet?

As an LSI participant, you are required to annually attend approved LSI Employer Logger Safety program training. There are two parts to the required training: Formal Training and Safety Training (see the attached LSI Training Requirements for more details). This packet satisfies one of the four required Safety Trainings. You must also ensure that all of your workers receive four LSI required trainings per year.

How do I provide the training to my employees?

You and your delegated supervisors, if delegated, and all employees engaged in manual logging operations must participate in at least four LSI trainings on an annual basis. If you have employees that do ground operations, even if only occasionally, review the "In the Clear Rigging" safety training (found on our website) materials in detail and discuss the scenarios with employees.

What documentation is required?

You will need to document that the training took place as part of your safety minutes. Be sure staff has signed the safety meeting sign-in sheet. The completion of the training will be assessed at the annual DOSH LSI Consultation.

WASHINGTON STATE LOGGER SAFETY INITIATIVE

Keeping Washington loggers safe.

Quarterly Logging Training: Lockout/Tagout Training

January 2019

Lockout/tagout (LO/TO) refers to specific practices and procedures to safeguard employees from the unexpected energization or startup of machinery and equipment, or the release of stored energy during service or maintenance activities.

Why is Lockout/Tagout important?

Serious injury can be caused by sudden or unexpected startup of machinery, contact with live electrical circuits, or unexpected release of the stored energy. Installation, repairs and servicing of machines can be dangerous. Fortunately, these hazards can be avoided through the use of lockout/tagout procedures.

Lockout/Tagout must be performed when?

- When service or maintenance is being performed on or around any machine.
- When new equipment or machinery is being installed.

Lockout/Tagout Program

- Employers must establish and implement written procedures for lockout/tagout, train employees and ensure they follow the procedures. The LSI logging accident prevention program contains a program and procedures to follow for different logging equipment.

What training must be provided?

Employees must be aware of the hazardous energy to be controlled and means to control the energy. Employers must implement written LO/TO procedures, and provide training to ensure the purpose and function of the program are understood by employees performing maintenance, repairs, or adjustment of machinery/vehicles. Additionally, employees performing maintenance or servicing must know which sources of hazardous energy need to be disabled. The following are examples of hazardous stored energy found on logging equipment:

- Electrical
- Hydraulic or pneumatic pressure
- Mechanical (rotating saws, springs, shafts, gears, etc.)
- Gravity (elevated blades, booms, grapples, saw heads, buckets, dump truck beds and rolling vehicles, etc.)

What procedures need to be followed?

The following is an example procedure for a log loader. Other types of logging equipment may contain different procedures which are listed in the LSI LO/TO program.

1. Follow the procedures listed in the operators/service manual. The operating and maintenance manual must be available and complied with by operators and maintenance employees.
2. Park the machine on a level surface.
3. Apply the swing lock.
4. Lower the boom and grapples to the ground or otherwise secure to prevent movement.
5. Turn off the engine.
6. Before any hydraulic circuit line is opened for service, release any residual hydraulic pressure. Follow the procedure listed in the Operator/Service Manual.
7. Remove the ignition key. Have a responsible person maintain possession of the key.
8. Engage hydraulic lockout.
9. Move travel pedals and controls repeatedly through all positions to discharge pressure or stored energy.
10. Turn off the battery switch, if applicable.
11. Place a tagout tag on the machine. Place the tag in a position that will be obvious to anyone attempting to operate the machine. For example, the tag could be secured in place next to the ignition key switch.
12. Block the tracks if possible.
13. Prior to removing the tagout device, inspect the work area to ensure tools have been removed, guards are replaced and all employees are in the clear before starting the machine.

What LO/TO devices should be used?

Tags are used within the LSI LO/TO program. Any tag used needs to be durable enough to withstand the environment. They shall contain a legend such as “Do Not Start” or “Do Not Operate.” The tags must be available at the job site.

As a group, review the attached SHARP Hazard Brief and discuss the following questions:

1. How would you have handled this situation?

2. Why is it important for all crewmembers to understand LO/TO for each machine on an active operation?

3. How would your crew respond to an emergency like this?

For more information on Lockout/Tagout please see the Logger Safety Initiative Accident Prevention Program on the LSI website or search the L&I website for “WAC 296-54-517.”

SHARP
Safety & Health Assessment & Research for Prevention

Hazard Brief

Logging: lockout/tagout

Operator Crushed in Processor Head

In the summer of 2018 in Oregon, a processor operator with ten years of experience died when the delimbing arms and feed rolls of the processor head he was repairing closed suddenly, crushing him.

As he was operating the processor that day, he noticed that the length-measuring wheel had broken off. He told the yarder engineer that he was going to retrieve it. He got out of the processor, leaving the engine running and the hydraulic switch in the “on” position.

The hydraulic safety lock lever on the processor was broken. When intact, the warning lever extended horizontally from the operator’s seat when the hydraulic system was energized, and it would have to be lowered into the “off” position before the operator exited the cab.

The processor operator and the chaser inspected the damage to the machine. The processor operator asked the chaser for some electrical tape. The chaser gave him the tape and then walked back around the processor to unbell the turn that was coming to the landing.

As the chaser was walking back to the turn, he heard the delimbing arms and feed rolls close on the processor head. He looked back, but did not see the operator in the cab. He went back to check on the operator and found him trapped inside the closed head.

The processor operator yelled for help. The chaser called for the yarder engineer, then climbed into the processor and opened the feed rolls. The operator fell out of the head, unconscious. The crew radioed the landowner’s office and emergency services were called. When responders arrived, they pronounced the processor operator dead at the scene.

An investigation found that the processor operator had been standing inside the open delimbing arms and feed rolls placing electrical tape on the wires where the measuring wheel had broken off. The engine was still running and the hydraulic system was engaged when he started repairs. Grounding one of the wires cut power to the switches that detect that the saws are retracted before allowing a log to be fed. This caused the arms and rolls to close suddenly.

Photo 1. Processor head that closed around operator. Photo shows feed wheels in open position. The arrow points to the location of the broken wires. The “X” shows the location where the operator was standing at the time of the incident.

Photo 2. Length measuring wheel that broke off of the processor head.

Photo 3. Exposed wires in the area where the length-measuring wheel broke off the processor head.

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WASHINGTON State FACE Program
Fatality Assessment & Control Evaluation

Washington State Department of Labor & Industries

SHARP
Safety & Health Assessment & Research for Prevention

Hazard Brief

Logging: lockout/tagout

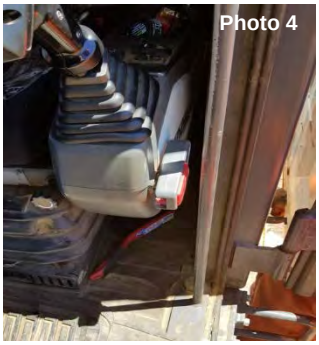

Photo 4. Broken hydraulic safety lock lever on processor.

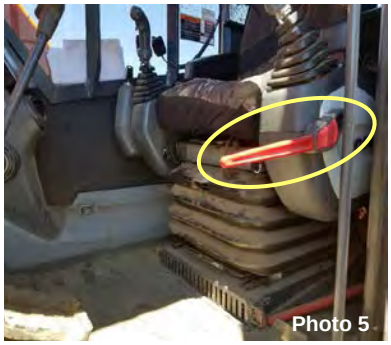

Photo 5 & 6. Example of intact hydraulic safety lock lever raised in "on" and lowered in "off" positions on a different machine.

Recommendations

- Make sure workers always follow lockout/tagout procedures before any type of equipment servicing or repair. Do spot checks to make sure that equipment is consistently shut down and hazardous stored energy is controlled. Conduct retraining, if necessary.
- Check that all safety features on machines and equipment are in working order. Make sure employees are aware of the safety features and how they work.

Requirements

See WAC 296-54-517 – Lockout/tagout procedures:

- (1) Employers must establish and implement written procedures for lockout/tagout to prevent the accidental start up or release of stored energy of machinery that is shut down for repairs, maintenance, or adjustments.
- (3) Lockout/tagout procedure details must include:
  - (a) Employees performing maintenance, repairs, or adjustments have knowledge of the hazardous energy to be controlled and the means to control the energy.
  - (b) Machine shutdown.
  - (g) Engage hydraulic safety locks when applicable.
- (8) You must provide training to ensure that the purpose and function of the lockout/tagout program are understood by employees performing maintenance, repairs, or adjustments covered by this section. This program must be reviewed at least annually and training provided as needed. This training may be accomplished through safety meetings

See WAC 296-54-573 – Logging machines—General:

- (9) Each machine, including any machine provided by an employee, must be maintained in serviceable condition and the following:
  - (a) Each machine must be inspected before initial use during each workshift. Defects or damage must be repaired or the unserviceable machine is replaced before beginning work.
  - (b) Operating and maintenance instructions must be available on the machine or in the area where the machine is being operated. Each machine operator and maintenance employee must comply with the operating and maintenance instructions

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