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.

Quarterly Logging Training: Landing Safety

October 2019

There are many moving elements to a logging landing. There are log trucks coming in and out, log loaders loading trucks and sorting logs, a log processor, and a yarder accompanied most of the time with a chaser. Depending on the jobsite, this is quite often performed in a tight space. Machine operators frequently work hand-in-hand to move wood. The accumulation of these elements increases the probability of a serious accident including the possibility of a fatal accident. At times, working on a landing can be one of the most dangerous places to work in the United States.

The following are tips and recommendations that can help to create a safer work environment for all workers on and around logging landings.

Planning can eliminate problems

The biggest complaint heard regarding most landings is that there is simply just not enough space. So ask yourself ahead of time, “Am I bringing the right tool for the job?” Swing Yarders and Yoders are effective on smaller landings but are not always the right tool if you are hanging out a long ways. The number one priority is that the yarder you bring to the job is capable of doing the job and has the proper amount of room to safely perform. However, you must fully know and understand the capabilities and limitations of your yarder. You must respect the notion that you may have to turn down jobs that cannot be done safely with the tools that you have.

There is preparation that can be done ahead of time to make the landing better for the yarder that you are bringing in. These are just a few of the common problems associated with setting up a tower;

- The yarder needs to sit in the right spot
- There needs to be room to land logs
- Machines need to be able to work under the guylines and deck logs.

However, if any one element is neglected a major accident could occur. Logs need to land safely in the chute otherwise they could slide off onto the crew below or shift and injure the chaser while unbelling the turn. One solution is to extend out the chute or cut the ground at an angle,

which can be done by either using a cat or the heel rack of the shovel. Once brush is available from limbing logs, pile it at the edge of the landing to help extend the landing otherwise known as a “false landing.”

Best Practice: Bring a cat to the landing to push out or widen areas before the yarder is in place. Plan where you are going to start and where you are going to end the job. If the log loader does not have a lot of room to deck it might be the better practice that the crew logs the side closet to the log loader first and clears out the other way so that as the job progresses they work away from the log decks instead of into the log decks.

Log Processors

Chunks should never be cut or left in the chute. Most logging sides use “dangle head” log processors, which may swing the log back and forth near the chute and could easily knock a chunk from the landing. Chunks have the possibility of deflecting left or right of the skyline several hundred feet in either direction, and could cause severe or fatal injuries to the workers below.

If a turn comes in which contains some very short pieces along with longer tree length logs, move the short pieces first. Otherwise, you may stroke the log into the shorter pieces and dislodge them from the landing. Keep the brush swept clean on the landing, especially if you have a chaser working on the landing. If you are lucky enough to find a ten to twelve foot log that is split in half save it for a good sweep stick. Pile your brush in a manner that helps to create a barrier from chunks from sliding off the landing. For this reason it is not good practice to stroke logs that go across the chute. If you need to change the direction of the logs/tree length, keep a small pyramid of logs off to one side that you can use to flip the logs over with. This will allow you to keep the chute cleaned out during fast times and will allow you to direct the logs being cut to your pile or brow log.

Dangle head operators know that the first few cuts are difficult until there is a pile of logs to rest the end down on so that you do not slab or break the logs. This also greatly increases the risk of breaking the chain. Remember, chain shot only occurs if you break a chain. Finding a way to balance the logs plays a vital role in reducing this possibility. Another solution is to ask the shovel operator to hold the ends of the first few logs to help balance. Once you have built up a little pile to rest the ends on as you process, you will find that you can balance the logs a lot easier. Ideally, one larger log turned perpendicular to the logs that you are processing will work the best for this.

Best Practice Always know where everyone one is at when you are working. If the chaser has to be in your area, you may have to stop for a minute to allow them to finish what they are doing. Know your chain shot cone. If anyone happens to be within the shot cone you have to stop cutting. Bail out the chute, put your flip log pile to use, but do not attempt to cut when someone is in the shot cone. Sometimes it is just momentarily; this also presents a good learning opportunity if someone unknowingly enters your area without warning you first. No

matter how inconvenient, you may need to re-educate them, it could save their life. Again, pre-planning and sometimes adjusting your original plan to how you are setup will help to keep everyone in the safest spot, which also allows everyone to keep working.

Three-feet (3') is the minimum distance that the processors counterbalance can work next to a pinch point whether it be a yarder, log deck, bank, etc. Three feet is not enough room if the chaser is working beside the processor. You may have to stop and allow the chaser to get in the clear before resuming work. If the landing is especially tight and you have to work exactly three-feet from a pinch point, make a mark on the ground next to the front edge of your track or place a short log beside your track. This will allow the operator to see if his machine has shifted closer than three feet. Ribbon off the area besides the machine and ensure that the crew knows not to access this area.

Lastly, maintain your machine and processor. This includes all steps;

- Hand grabs
- Horns
- Bi-directional travel alarms
- Cutting components to the processor

Log Loaders

The log loader operator is the quarterback of the landing. They control all traffic coming on and off the jobsite. Log loaders dictate who can come in and who needs to wait outside of the job at the last pull off spot. Poor communication could result in a truck having to back-up a long ways in the dark, which could result in an accident. Shovel operators should keep their CB radios up and their FM radios down. The shovel operator communicates with the yarder engineer, processor operator, talks to the log truck drivers, and keeps an eye out for all foot traffic.

The shovel operator is also often the first one on the jobsite for the day. They unlock and open the gates and drive the roads first. There is a possibility that the shovel operator may have to cut a blown over tree out of the roadway at 3:30 am. Many companies have made it a policy that the shovel operator needs to wait until the first truck has arrived and that they communicate with them before they operate a chainsaw. Cutting a blown over tree that maybe under tension especially in the dark in the headlights of your truck can be extremely dangerous, and quite possibly the tree could be under more tension than what is noticeable in the low light. Keep a charged flashlight so you can fully evaluate the tree before you decide to cut it. Note: if the shovel operator is using a chainsaw, whether it is their own personal saw or company issued saw, the chainsaw must be maintained in good serviceable condition. The operator also needs to adhere to all of the required PPE rules (boots, eye protection, hardhat, chaps, and earplugs).

The shovel operator is also responsible to ensure that log truck drivers are accountable for wearing all required PPE when they are out of their cabs. At times, it takes some convincing to

get log truck drives to shorten up but logs need to extend at least one foot over the bunks and logs cannot sag onto the reach of the truck. If the load gets tall near the top of the stakes, put the boom of the shovel up against the load until there are at least two wrappers around each log. If the truck needs to pull forward, ensure that all log trucks finish wrapping up in the loading area.

Keep your loading area clean, move the chucks out of the ditch line, pick up sticks and brush and toss them aside. Understand that drivers need room to throw their wrappers, keeping logs and chunks decked up alongside the roadway increases the possibility of slip, trips, and falls.

Best Practice Never start loading the next log truck until the previous truck is finished wrapping so there is not an unobstructed path to that truck if a log were to roll off. This is especially important on mule train trucks, allow the driver to wrap up the truck end of the load before you start loading the trailer. When the driver is out of their truck ask them to turn on their flashers, especially when loading in the dark, this will alert the shovel operator that the driver is not yet back in their truck.

When loading exceptionally large logs that might slip out of the grapples. It is the best practice to ask that the log truck driver stand out in front of his truck until the bunk logs are safe on the truck. If the truck was loaded on a steep part of the roadway, decide if it is possible that both the shovel and truck pull forward to level ground before wrapping the load. If the shovel operator is required to drive logs into the ground to deck on hillsides to use as makeshift pilings, fill the holes back in once the piling log has been removed. Injuries have resulted from ground personal stepping into such holes. Lastly, maintain your machine, which includes all steps, hand grabs, horns, and bi-directional travel alarms.

Truck Drivers

When considering the hazards associated with logging often times we leave out the log truck drivers. Log truck drivers enter and leave the jobsite three to four times per day, often are on the jobsite early in the morning and are required to turn around and backup long distances in the dark or in the fog. Once safely backed in underneath the log loader they are under the operator's direct supervision and control until they leave the jobsite, no matter if they are a company driver or own their own log truck they must obey all safety rules and protocols.

When the driver is outside the cab of their truck according to LSI protocol, they must wear two pieces of high-viz PPE (high visibility hardhat and a highly visible yellow or orange vest, or other similarly colored garments when outside the cab in the vicinity of the landing or landing area). As a driver, the securement of your load is entirely up to you. It is imperative that you help watch the placement of the logs as they are being loaded onto your truck. If a log is placed where there is not enough overhang past the stake, it is imperative that the driver sees it and asks that the operator corrects it.

Once the load is complete, the driver must evaluate the load and determine if it is safe to wrap up before they start throwing their wrappers. If the load is too high or looks unstable, they must ask that the log loader moves the log or takes the log off the load. The loader operator can also place his boom against the load to help stabilize the load. If the load looks to be stable and at a safe height but you are not comfortable leaving the cab, ask the shovel operator to pull forward with you to a safe spot to give you your ticket and allow you to wrap up. Understand that roadways get muddy in the rainy season; it is not acceptable to move entirely out of the loading area to get out of the mud.

Best Practice Spend time in the evening preparing your truck for the next morning. Ensure that your windshield and your lights are clean. Plug in your trailer to ensure that there is air in the trailer. That way when the log loader is setting up your trailer it does not shift and strike you when you are closing your pintal hook and attaching the lights and hoses. Only adjust your brakes when it is safe to do so, never attempt to adjust your brakes on a logging job while parked on an incline. If adjustments need to be made chock your tires or ask the operator to hold your load. If neither of these are possible wait for another driver to assist you.

To reduce hazards, ensure that access steps and handholds are good condition. Always keep hands free when getting in or out of the vehicle, face the vehicle and maintain three points of contact. The three-point system means three of your four limbs are in contact with the vehicle at all times (2 hands and one foot or 1 hand and 2 feet). Do not jump from the vehicle. Jumping from just 3 feet can generate impact forces as high as 1400 pounds could cause ankle or foot fractures, knee damage, or other injuries.

Chaser

The chaser is the most vulnerable individual on the landing as they are typically the only person on the landing not protected by the cab of a machine. Additionally, the yarder engineer asks the chaser to perform many tasks or fulfill requests by the rigging crew. Tasks range from making coils of haywire to sending down the lunch bags. The chaser performs tasks asked by the shovel and processor operators, meanwhile keeps up with unbelling the turns, and is responsible for staying out of the way of all machines on the landing. It could be quite easy for the chaser to get pulled in so many directions at once that they become distracted from the task on hand.

The chaser must maintain good communication with the yarder engineer and machines working out of the chute. The chaser must always been seen and have a positive means of assurance it is clear before entering the chute or approaching equipment. The requirements for an LSI Chaser is to wear two pieces of high viz PPE (high visibility hardhat and highly visible yellow or orange vests, or similarly colored garments).

The chaser must ensure that the logs are stable and secure before the chokers are unbelled. The chaser should always ask that the processor or yarder grabs or readjusts a turn that does not look stable. The chaser must never place themselves in the bite and understand that there are other options available if they do not like the placement of a turn.

Best Practice Always be seen and be predictable, go in and out of the chute the same direction every time. Everyone working around you has a different agenda and have many things on their mind to perform their jobs. They may look in the spot they expect you to be and assume if you are not there then you are in the clear.

If you have to walk past the log loader while loading a log truck ask the yarder operator to CB the shovel operator that you will be walking by. Find a safe spot to stand behind or out beside the yarder. Do not stand too close to the engine as noise and exhaust can have a long-term damaging effect on you. Always remain out of the chain shot cone of the processor. During your pre-site meeting, discuss these issues with the landing crew before the start of the job. Gain a clear understanding of where you need to be and how you eliminate such issues. The processor operator may need to place a small deck of logs or root wad between you and them to help create a barrier depending on the setup of the jobsite.

Pre-site meeting

Your pre-site meeting is something that must never be taken lightly. Washington State law requires in 296-54-51510 (1-2) Safety and health meetings:

(1) You must hold safety and health meetings at least monthly.

(2) A safety and health meeting must be held each time you move logging or timber felling operations to a new job site.

Note: When moving to a new job site, site-specific hazards should be identified and discussed during the pre-job safety meeting.

Do not use pre-selected tailgate meeting topics for your pre-site meeting that are not specific to your jobsite. While those may be good for additional training, it is imperative that you evaluate your jobsite and discuss hazards that are specific to that particular setting.

Best Practice Allow and encourage everyone to participate in the meeting. As discussed earlier everyone has a different agenda and may have a different point-of-view. The best time to work out these details described in this training is before the job starts, other details may need to be adjusted with the progression of the job. It is a good practice to also have many non-formal safety meetings, if needed have a quick meeting every day, and have someone in charge of checking in regularly with all members of the crew to ensure that nothing is interfering with their ability to work with a clear mind.