Line of fire toolbox talk

29 CFR 1926.1425, 1926.1424, 1926.602, 1926.302, 1910.212, 1926.21

Date _____ Trainer _____ Location _____

Opening question

If the strap or hose nearest you let go right now, where would it go, and are you in its path?

Why it matters

The line of fire is the path an object or released energy will take if something moves, falls, breaks or lets go. Getting struck by a load or a whipping hose, or caught between a moving object and something solid, can happen in a split second. There is usually no time to react, so your protection is where you choose to stand.

Key points

1 Stay out from under suspended loads

Never walk under a suspended or raised load. On crane work in construction, while the operator is not moving a suspended load, only workers hooking, unhooking or guiding the load, making its initial attachment, or operating a concrete hopper or bucket may be in the fall zone. In general industry, no one may stand or pass under the elevated portion of a forklift, loaded or empty (29 CFR 1910.178(m)(2)).

29 CFR 1926.1425(b)

2 Respect swing and crush zones

A crane's rotating upper works can strike you or pin you against another object. On construction sites, where that hazard exists, the employer must mark the hazard area with control lines, warning lines, railings or similar barriers, or with warning signs and high visibility markings where barriers are not feasible. Stay outside the barricade, and before you go to a spot in the hazard area the operator cannot see, make sure the operator is told (29 CFR 1926.1424(a)(3)(i)).

29 CFR 1926.1424(a)(2)(ii)

3 Never stand behind backing equipment

Blind spots behind trucks, loaders and rollers put people on foot in the line of fire. On construction sites, earthmoving or compacting equipment with an obstructed view to the rear may back up only with a reverse signal alarm that stands out from the surrounding noise, or when a worker signals that it is safe. Make eye contact with the operator before you cross behind a machine, and stay away from trucks being loaded or unloaded.

29 CFR 1926.602(a)(9)(ii)

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4 Get out of line with tension and pressure

Straps, chains, cables and hoses under tension can snap back or whip when they break or come loose. Stand to the side of a load being pulled, pushed or tightened, never in line with it or on the far side of a load that could shift or tip. On construction sites, pneumatic tools must be secured to the hose so they cannot accidentally disconnect (29 CFR 1926.302(b)(1)), and air hoses over 1/2-inch inside diameter need a safety device at the source of supply or branch line to reduce pressure if the hose fails.

29 CFR 1926.302(b)(7)

5 Keep clear of moving parts and flying debris

Rotating equipment and power tools can grab clothing, kick back or throw chips and sparks. In general industry, machine guarding must protect the operator and other employees in the machine area from hazards such as ingoing nip points, rotating parts, flying chips and sparks. Keep guards in place, and stand out of the path a blade or wheel would take if it kicked back or broke.

29 CFR 1910.212(a)(1)

6 Plan where you stand before the work starts

Before each task, ask what could move, fall, swing, roll or let go, and where it would go. Add line of fire hazards to your job safety analysis or pre-task plan, and set up barricades or exclusion zones before work begins. If someone steps into the line of fire, speak up and stop the work until they are clear.

Scenario

Picture this: A crew is pulling a pump skid onto a trailer with a come-along and a chain. One worker stands in line with the chain to watch the hook. Another steps under a forklift's raised forks to grab a dropped shackle. Nobody talked about where to stand. Where is the line of fire in each case, and where should each person be?

Crew discussion

1. What on our job today could move, fall, swing or let go?
2. If a strap or cable broke during a pull or a lift, where should we be standing?
3. When we push or load material, who could be on the far side if it shifts or tips?

Bottom line **Before every task, find the path that loads, machines, tools and stored energy could take, and keep your body out of it.**

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Sign-in sheet / Hoja de asistencia

Topic / Tema Line of fire / Línea de fuego

Date / Fecha _____

Trainer / Instructor _____ Location / Lugar _____ Company / Empresa _____

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