Hot work toolbox talk: permits and fire watch

29 CFR 1910.252, 1926.352

Date _____ Trainer _____ Location _____

Opening question

Before anyone strikes an arc or lights a torch today, who checks the area for anything a spark could reach?

Why it matters

Hot work is any job that makes sparks, flame or heat that could start a fire, like welding, torch cutting, brazing and grinding. Sparks and hot slag travel farther than you think and fall through cracks into places you cannot see. A spark can smolder in dust or trash and turn into a fire after the crew goes home.

Key points

1. **Get the area checked and authorized**
   In general industry, before welding or cutting is permitted, the person responsible for authorizing it must inspect the area and designate the precautions, with authorization preferably given as a written permit. Know who signs permits on this job, and do not start until the precautions are in place.
   29 CFR 1910.252(a)(2)(iv)

2. **Move the work or move the combustibles**
   First ask if the job can be done without hot work, like bolting instead of welding. In construction, move the work to a designated safe location when practical, or, if it cannot readily be moved, take all movable fire hazards nearby to a safe place or otherwise protect them (29 CFR 1926.352(a)). In general industry, combustibles must be moved at least 35 feet away where practicable, or covered with flameproofed covers or otherwise shielded. If fire hazards cannot be moved or guarded, welding and cutting must not be done (29 CFR 1910.252(a)(1)(iii)).
   29 CFR 1910.252(a)(2)(vii)

3. **Check below, behind and next door**
   In general industry, where floor cracks or openings cannot be closed, protect combustibles below from falling sparks, and do the same for cracks or holes in walls, open doorways and open or broken windows (29 CFR 1910.252(a)(2)(i)). In construction, when welding, cutting or heating on a wall, floor or ceiling, take the same precautions on the opposite side. Heat travels through metal too, so check behind pipes, beams and metal walls.
   29 CFR 1926.352(f)

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4 Post a fire watch when needed

In general industry, a fire watch is required where more than a minor fire might develop, or where appreciable combustibles are closer than 35 feet to the work, among other conditions. The fire watcher keeps extinguishing equipment ready, is trained to use it, knows how to sound the alarm, and stays at least a half hour after the work ends (29 CFR 1910.252(a)(2)(iii)(B)). In construction, when normal precautions are not enough, extra people must guard against fire during the work and long enough afterward to make sure no fire can start (29 CFR 1926.352(e)).

29 CFR 1910.252(a)(2)(iii)(A)

5 Keep firefighting equipment ready

Suitable fire extinguishing equipment must be ready for instant use, and on construction jobs it must be immediately available in the work area. Check that it is charged and not blocked. In construction, do not weld, cut or heat where applying flammable paint, the presence of other flammable compounds or heavy dust concentrations create a hazard (29 CFR 1926.352(c)).

29 CFR 1926.352(d)

6 Treat containers and cylinders with care

In construction, a drum, container or hollow structure that held toxic or flammable substances must be filled with water, or thoroughly cleaned, ventilated and tested, before welding, cutting or heating. Before heat is applied, it also needs a vent or opening to release built-up pressure (29 CFR 1926.352(j)). Keep gas cylinders where sparks, hot slag or flame will not reach them, or use fire resistant shields when that is impractical (29 CFR 1926.350(b)(1)).

29 CFR 1926.352(i)

Scenario

Picture this: A welder is asked to cut out an old steel bracket on a mezzanine. Cardboard and wood pallets sit on the floor below, and there are gaps where the deck meets the wall. Nobody checks underneath or posts a fire watch, and the crew leaves right after the last cut. What could happen next, and what should have been done first?

Crew discussion

1. Who authorizes hot work on this site, and where are permits kept?
2. What could sparks reach here today, including below us and behind walls?
3. When do we need a fire watch, and how long does that person stay?
4. Where is the nearest extinguisher, and is it the right type?

Bottom line

No hot work until the area is checked and authorized, combustibles are moved or protected, an extinguisher is ready and a fire watch is posted when needed.

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Sign-in sheet / Hoja de asistencia

Topic / Tema Hot work permits / Permisos de trabajo en caliente

Date / Fecha _____

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

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