What is a Hot Work Permit?

Safety Talk

What’s At Stake

Almost every organization has the need for hot work?welding, cutting, brazing, etc.? on some level. Some workplaces do more hot work than others and have designated areas for this work, such as a welding station. These areas are set up to be free of combustible materials and other ignitable materials, and have welding screens that surround the workers to catch any stray sparks. The use of flammable substances in these areas is prohibited and appropriate fire extinguishers are kept nearby. But this is not the case when a welder has to do spot hot work in a facility.

What’s The Danger

When a welder enters an area to do spot hot work, a new and dangerous hazard is introduced to the area. A quick ?five-minute job? done in the wrong place can cause a fire or an explosion.

Example

A 29-year-old scrap metal cutter was cutting a vehicle frame for salvage with a torch. He was working 8 to 10 feet from a 1500-gallon storage tank, which he and a co-worker had unloaded from a truck earlier that day.

Escaping vapors from the tank were ignited by spatter from the cutting activities, causing the tank to explode. The victim was engulfed in flames, igniting his clothing and causing burns over 45% of his body. He died two weeks later from complications associated with the burn injuries.

How To Protect Yourself

It’s best to conduct all hot work in designated ‘safe? areas only. But when that’s not possible or practical, most organizations require the use of a Hot Work Permit, which is issued after an authorized person is satisfied that proper precautions have been taken to reduce the risk of fire.

These precautions can include:

- Inspecting the work area thoroughly for fire hazards. This includes determining if any structures, such as the partitions, walls or ceilings, contain combustible materials;

- Sweeping up any combustible materials;
- Ensuring that combustible floors are kept wet with water or covered with fireresistant blankets or damp sand;
- Moving all combustible materials away from the work area or covering them with fire-resistant blankets or shields;
- Protecting gas lines and equipment from falling sparks, hot materials and objects;
- Using fire-resistant material to block cracks between floorboards, along baseboards, walls and under door openings;
- Closing all doors and windows;
- Covering wall or ceiling surfaces with a fire-resistant and heat-insulating material to prevent ignition and accumulation of heat;
- Inspecting the area afterwards to ensure that wall surfaces, studs or wires have not heated up;
- Vacuuming away combustible debris from inside ventilation or other service duct openings to prevent sparks from entering the ductwork. Covering duct openings with a fire-resistant barrier and inspecting the ducts after work has concluded;
- Posting a trained fire watcher within the work area while the work is occurring and for at least 30 to 60 minutes after work has stopped;
- Ensuring that proper fire extinguishers have been inspected and are in the immediate vicinity.

Final Word

Sometimes spot welds take so little time that it’s tempting to skip the Permit process and just get it done. But when hot work is performed near combustible materials, a moment is all it takes for a disaster to occur. Don’t risk it.