Hot Work – Spanish

Key Takeaways:

– Understanding the hazards of hot work.
– Comprehending the basic requirements for performing hot work.
– Recognizing the elements of equipment safety.
– Observing special equipment and precautions that ensure the personal safety of hot work employees.
– Learning appropriate safety practices for arc welding and cutting and oxygen-fuel gas cutting and welding.

Course Description

The most common serious occupational injury for welders is eye injuries, at about 25% of total welding injuries each year.

Hot work is defined as any labor involving open flames or produces sparks, or that can start a fire by other means. Usually, this is welding, wheel or torch cutting, brazing, soldering, and grinding, but it can include other work.

Hot work requires a substantial amount of controls because it poses such a unique combination of both safety and health hazards to workers. Luckily, these hazards can be greatly reduced if you follow the proper procedures and use the controls that are in place.

First and foremost, employees working around hazards created by hot work operations must be protected by personal protective equipment (PPE). Employees performing hot work need to wear fire retardant long-sleeved clothing without cuffs, or else they sacrifice body protection.

All sleeves and collars need to be buttoned up. Do not wear clothing with tears, snags, rips, or worn spots that could easily be ignited by sparks. Proven protective equipment also includes welding “leathers” such as jackets, sleeves, aprons and gauntlet gloves.

As well, your feet must be protected with high top leather shoes, preferably safety shoes. Anytime low shoes are worn, your ankles must be protected by fire resistant leggings. Both hot work employees and helpers must wear suitable protection for their heads, faces, and eyes depending on the particular job.

Always consider how sparks and bits of hot metal can inflict damage; sparks can be more distracting than directly dangerous and then present new risks associated with inattention.

Remember to ensure personal protective equipment (PPE) is well-maintained and in working order. The purpose of welding helmets and hand shields is to protect the eyes, face, neck, and ears from the harmful radiation produced by the arc. Do not use a welding helmet or shield if the filter plate or cover plate is cracked or broken. Preferably, use a flame-proof skull cap to protect your hair and head. Lastly, transparent face shields and ventilated goggles both insulate from heat.

Often overlooked, but the potential for fire, explosion, or health hazards makes for the strong recommendation to prohibit welding, cutting, or hot work being attempted on used drums, barrels, or tanks that have not been properly cleaned and purged. The possibility of introducing an ignition source to your misfortune should make you want to be abundantly sure about what's inside of these units before performing any hot work.

Never weld directly on a concrete floor. The heat from the arc can create steam from the moisture within the concrete, which can then explode. As well, in the case that the welding operation must be done on steel or another conductive material, an insulating mat must be underneath the welder. Anytime the welding area is wet or damp or the welder is actively perspiring, then they must wear insulating rubber gloves under the welding gloves. Always equip the welding area with a fire blanket and a well-stocked first aid kit.

In addition, noisy situations necessitate hearing protection.

For everyone's safety, ensure your workforce follow these precautions to prevent electric shock when working with an electric arc welder:
– Ensure the workpiece is grounded.
– Using dry insulating materials between the workpiece and ground is required.
– Always wear dry, hole-free insulated gloves and body protection.
– Wear a helmet when welding or watching welding work. Only use a helmet that is properly fitted and comfortable, with the properly shaded glass eyepiece filter to protect your face and eyes.
– Ensure the welding area is well ventilated and use the necessary respiratory equipment.
– Never touch electrically energized ("hot") parts or electrodes with bare skin, or wet clothing, or other conductive material.
– Never allow heated weld areas to come into contact with exposed skin.
– In the case that the wet area and welding operator cannot be insulated from the workpiece with dry insulation, use a semiautomatic, constant-voltage welder or stick welder with a voltage reducing device.
– Maintain the electrode holder and lead cable insulation's good condition and do not use if the insulation is damaged or missing.
– Do not dip an energized ("hot") electrode holder in water.