

“Welding Safety”

Why It Matters:

- ☞ Welding is a hazardous activity that poses a unique combination of both safety and health risks to more than 500,000 workers in a wide variety of industries.
- ☞ Because it is a common operation in many workplaces, its hazards are often underappreciated.
- ☞ OSHA reports that more than four deaths per thousand workers are attributed to welding accidents.

OSHA requires special training for welders. OSHA says that employees involved in welding operations must receive detailed training in the safe operation of their equipment and the safe use of the process.

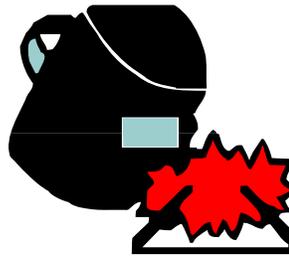
- Welders must be suitably trained in the safe operation of equipment and the selection of appropriate PPE. Only trained and qualified personnel are allowed to use welding equipment.
- Fire watchers must be trained in the use of fire extinguishing equipment and know how to sound the alarm in the event of a fire.
- Workers who handle oxygen and fuel-gas supply equipment must be trained to recognize the hazards and take necessary safety precautions to prevent fires and explosions.

The specific requirements for different types of welding operations and training are contained in 29 CFR 1910.251-255 (Subpart Q).



Remind welders of the “Three Fs.” The three main hazards of welding operations are:

- ☞ **Fire** (from flame, sparks, and slag): Welders should always remove combustible materials from the operation area and clean all flammable substances from the work surface. Wooden floors should be covered if possible. Fire screens should be used to keep sparks contained. A fire watcher with an extinguisher should always be on hand.
- ☞ **Fumes** (from heated metal): To protect workers from fumes, the area should be well ventilated. Care should be taken to make sure fire screens and barriers do not block ventilation. Outdoor welding operations should be set up so that the welder works upwind of fumes. An approved respirator should be used if required (e.g., when fumes are toxic). And welders should be reminded to stop working and get to fresh air if they start to feel ill.
- ☞ **Face injuries:** PPE to protect the face sparks, slag, heat, light, and electricity goggles, face shields, and helmets. The eye protection (including lens shade) operation.



and eyes against hazards such as impact and heat-resistant specific type of required face and depends on the type of welding

And don't forget to discuss other welding equipment used, you'll need to

hazards. Depending on the type of discuss other hazards, such as:

- ✓ **Electric shock:** Arc welders must inspect equipment to make sure it is in good condition and properly grounded. They should avoid working in wet areas and wearing metal items such as belt buckles, wedding rings, and watch bands. They also need to wear insulated gloves.
- ✓ **Explosions:** Gas welders should always check the Material Safety Data Sheet (MSDS) for the gas they are using, handle compressed gas cylinders carefully, and be sure to turn off the gas when equipment is not in use.