

Arc Welding and Fire Safety

If properly inspected and used, the arc welder is safe. If used improperly, it can expose welders to fire, explosion, and burns to the retina (lining of the eye).

Ben's Story

Ben was welding angle iron supports to a steel joist. There were magnesium shavings and cuttings on the ground in his work area. Welding sparks and slag from the welding landed in the shavings, causing a violent fire that engulfed Ben. He died from severe burns, fire and smoke inhalation, and lack of oxygen.

- ✂ What caused this incident?
- ✂ How could this have been prevented?
- ✂ Have you ever been injured while welding, or do you know someone who was injured or killed while welding? If so, what happened?

Remember This

Before starting work:

- Inspect the arc welder.
- Read **all** warning labels and instruction manuals for the welder.

- Insulate your body from the metal you are welding.
- Ground the welder case.
- Avoid fire hazards such as oil, grease, and flammables.
- Remove **all** potential fire hazards from the welding area, for at least 35 feet.

While working:

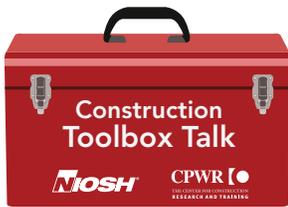
- Wear dry gloves in good condition and the right footwear and clothes (long sleeves and pants) to protect from hot sparks, molten metal, and slag.
- **Do not** strike an arc without putting on proper eye protection.
- Have the proper class of fire extinguisher (employer provided) nearby, ready for use.
 - For most welding, it is best to use a combination fire extinguisher (Class A, B, C).
 - For magnesium fires, use a Class D fire extinguisher or cover the fire with sand or magnesium foundry flux.
- Have a designated fire watcher when you weld or cut in areas where major fires can develop (such as combustible materials or materials closer than 35 feet to the work area).

How can we stay safe today?

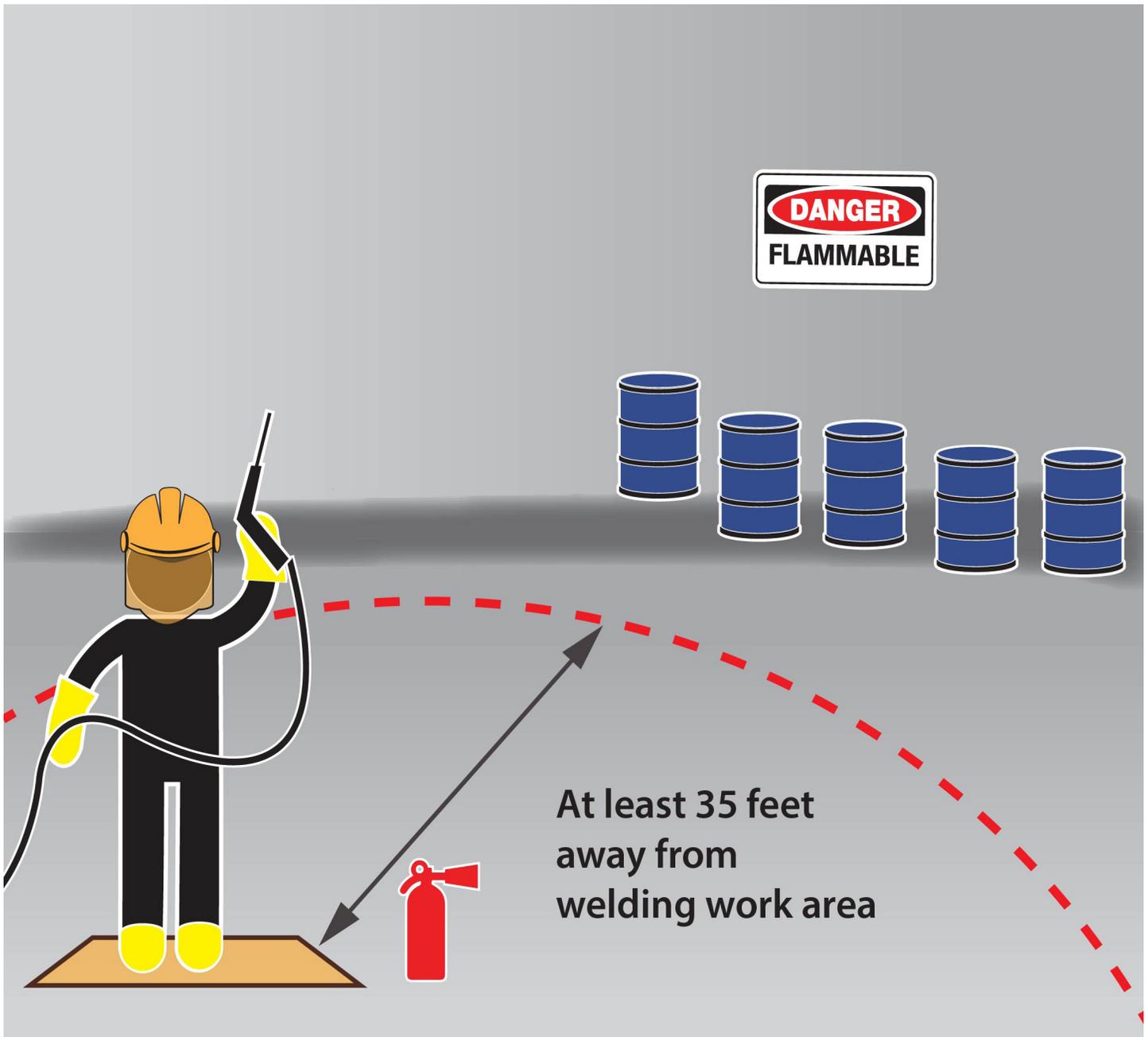
What will we do at the worksite to prevent injuries from arc welding and fire hazards?

OSHA Standard: 1926.352





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- ✓ Inspect the arc welder before starting any operation. Ground the welder case.
- ✓ Remove **all** potential fire hazards from the welding area, for at least 35 feet.
- ✓ Have the proper class of fire extinguisher (employer provided) nearby, ready for use. For most welding, use a combination fire extinguisher (Class A, B, C).
- ✓ For magnesium fires, use a Class D fire extinguisher or cover the fire with sand or magnesium foundry flux.

GET INFORMATION

CDC/NIOSH INFO: 1-800-CDC-INFO (1-800-232-4636) | TTY: 1-800-232-6348 | [cdc.gov/info](https://www.cdc.gov/info) | [cdc.gov/niosh](https://www.cdc.gov/niosh)
CPWR: Contact 301-578-8500 | cpwr-r2p@cpwr.com | www.cpwr.com/toolbox-talks
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