

FIRE WATCH

The National Fire Protection Association (NFPA) reports that between 2017-2021, the U.S. fire departments responded to an estimated of 3,396 structure fires involving hot work activities each year. These fires, often caused by welding, cutting, and other spark-producing activities, resulted in an estimated yearly average of 19 civilian deaths, 120 civilian injuries, and \$292 million in direct property damage. Fortunately, there are many safeguards that can assist in preventing these incidents. Utilizing fire watch personnel during hot work activities is one effective safeguard in preventing fires.

**Table 2. All Structure Fires Caused by Hot Work by Equipment Involved in Ignition:
2017–2021 Annual Averages**

Equipment Involved	Fires		Civilian Deaths		Civilian Injuries		Direct Property Damage (in Millions)	
Welding torch	1,542	(45%)	8	(44%)	48	(40%)	\$107	(37%)
Soldering equipment	698	(21%)	0	(0%)	25	(20%)	\$48	(17%)
Cutting torch	638	(19%)	4	(22%)	26	(22%)	\$34	(12%)
Burners	483	(14%)	6	(34%)	21	(18%)	\$102	(35%)
Tarpot, tar kettle	29	(1%)	0	(0%)	0	(0%)	\$1	(0%)
Power nail gun, stud driver, stapler	6	(0%)	0	(0%)	0	(0%)	\$0	(0%)
Total	3,396	(100%)	19	(100%)	120	(100%)	\$292	(100%)

A Fire Watch is a designated person responsible for monitoring hot work (welding, cutting, brazing) to detect and respond to fires during and after the operation.

According to OSHA, a fire watch is mandatory when:

1. Combustible materials are within 35 feet of the hot work area.
2. Combustibles beyond 35 feet can still be ignited by sparks.
3. Wall or floor openings expose combustible materials in adjacent areas.
4. Combustible materials are hidden but could be ignited by heat or slag.

Fire Watch Duties

- Be trained in the use of fire extinguishing equipment.
- Have fire extinguishing tools (extinguishers, water, sand) readily available.
- Know the facility and how to sound the alarm in the event of fire.
- Remain on site during the hot work and for at least 30 minutes after completion.
- Continuously monitor the area; refrain from performing other job duties.

Best Practices

- Inspect the area before work begins—remove or shield combustibles.
- Understand and maintain the conditions of the Hot Work Permit.
- Communicate with the supervisor and workers in the area.
- Stop work immediately if a hazard arises.
- Know the wind direction and current weather conditions.
- Know your escape route and emergency procedures.
- Never leave the work area while on duty without proper communication.
- Stay alert—no distractions like phones or unrelated tasks.

Training

Fire watchers have a critical job that can save lives, prevent injuries, and preserve property. For this reason, employees need to receive training on various topics, such as the use of fire extinguishers, fire watch responsibilities, hazards of performing duties, etc. Through proper training and education, fire watchers can help ensure the safety of everyone around them.

Fires caused by hot work are a leading cause of industrial fires. A vigilant fire watch can prevent property damage, injuries, and fatalities.

GCSC Resources

Safety Training: 6:00am – 3:00pm / Questions? csr@mygcsc.com

Fire Watch – A08FWA

Hands-On Fire Extinguisher – 08FIREXT

Visit www.mygcsc.com to register!