

# HOT WORK: TOP 5 SAFETY PRACTICES



According to the National Fire Protection Association, an average of 4,440 structure fires each year result from hot work<sup>1</sup> - cutting, soldering, brazing and welding operations performed on or inside a structure. Though often necessary in construction, fumes, gases, sparks, hot metal and radiant energy produced during hot work must be handled with extreme care.<sup>2</sup> The following precautions and risk mitigation measures can help prevent these fires.

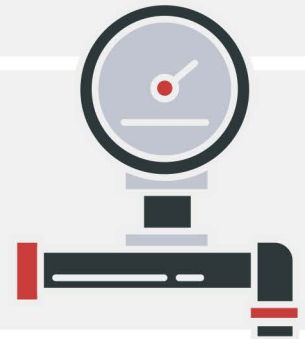
## 1 PREPARE FOR HOT WORK<sup>3</sup>

- Obtain the proper permit for hot work<sup>4</sup>, which can also serve as a checklist for operations and risk mitigation.
- Train hot work operators on equipment management, handling and storage of welding materials, gas safety, chemical hazards, and safety procedures.
- Outfit operators in safety equipment and attire designed for hot work.



## 2 CLEAR THE WORKSITE OF HOT WORK HAZARDS<sup>5</sup>

- Move combustible materials, flammable gases, vapors, liquids, dusts at least 35 feet from the worksite. Store oxygen and fuel gas cylinders separately.
- Cover floor and wall openings at least 35 feet from worksite – use fire resistant curtains and/or tinted shields to ensure hot metal does not land on combustible materials.
- Use adequate exhaust ventilation.



## 3 SECURE AND CONTROL A WATER SOURCE<sup>3</sup>

- Maintain an operational water source nearby.
- Keep fire extinguishers near the work site and attached to portable welding carts.
- Ensure the sprinkler system or alarm is on and operational.



## 4 USE SAFETY PROCEDURES DURING HOT WORK<sup>6</sup>

- Establish fire watch personnel, independent from the hot work operator, who survey the area during work with access to a fire extinguisher or water source. The fire watch can have no other duties.
- Create emergency and evacuation procedures, in the event of an accident.
- Place smoking areas far from the structure, enforceable by fire watch.



## 5 SAFELY CONCLUDE HOT WORK<sup>4</sup>

- Ensure hot work equipment is properly turned off, removed from a power source, and stored.
- Keep any sprinkler systems and alarms on.
- Require your fire watch to survey the area for 30 minutes after work concludes. For torch-applied roof systems, the fire watch should survey for 2 hours after work concludes.

<sup>1</sup>Structure Fires Started by Hot Work, National Fire Protection Association (NFPA)

<sup>2</sup>Conducting Hot Work Safely, Construction Fire Safety Coalition

<sup>3</sup>Welding & Cutting (Hot Work) Operations, Construction Fire Safety Coalition

<sup>4</sup>Hot Work Permit, Construction Fire Safety Coalition

<sup>5</sup>Welding Checklist, Construction Fire Safety Coalition

<sup>6</sup>Model for Fire Watch Policy, Construction Fire Safety Coalition