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\(^1\) - 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.\(^2\) The following precautions and risk mitigation measures can help prevent these fires.

1. **PREPARE FOR HOT WORK**\(^3\)
   - Obtain the proper permit for hot work\(^4\), 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**\(^5\)
   - 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**\(^3\)
   - 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**\(^6\)
   - 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**\(^4\)
   - 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.

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\(^1\)Structure Fires Started by Hot Work, National Fire Protection Association (NFPA)
\(^2\)Conducting Hot Work Safely, Construction Fire Safety Coalition
\(^3\)Welding & Cutting (Hot Work) Operations, Construction Fire Safety Coalition
\(^4\)Hot Work Permit, Construction Fire Safety Coalition
\(^5\)Welding Checklist, Construction Fire Safety Coalition
\(^6\)Model for Fire Watch Policy, Construction Fire Safety Coalition

To learn more about hot work operations and safety practices, visit [constructionfiresafety.org](http://constructionfiresafety.org)