



Gas-Welding Safety—Basic

West Virginia University
Environmental Health and Safety



Pre-Use Activities

- Review and understand information provided in the gas-welding regulator and hand torch equipment brochures, specifically the safety procedures.
- Inspect the gas cylinders, hoses, regulator, and hand torch for damage or disrepair.
- Ensure all hoses are connected properly.
- Notify supervisor and remove the welding equipment from service by attaching a red tag that states “OUT OF SERVICE” if the gas cylinders, hoses, regulator, or hand torch fails the pre-use inspection. Complete red tag with appropriate information.
- **HOT WORK PERMIT REQUIRED.** Obtain a hot work permit from the Environmental Health and Safety webpage: <http://www.wvu.edu/~ehs/formsinstructions.cfm>.



Operating Precautions

- Wear a welding hood with **SHADED** lens; requires at least a No.5 lens shade for gas welding.
- Wear welding gloves and appropriate protective clothing when using gas-welding equipment.
- Securely fasten gas cylinders to a wall, dolly, or welding cart.
- Use acetylene or other fuel-gas cylinders in an upright position only.
- Assure that the regulator and fitting match the type of gas and cylinder being used and are approved by the Compressed Gas Association.
- Prevent potential explosive or flammable conditions by never allowing oxygen to come in contact with oil, grease, or other flammable materials.
- Stand to one side and away from the regulator when opening gas cylinder valves.
- Crack (i.e., open slightly and close immediately) the cylinder valve before connecting a regulator.
- Use a **friction lighter** to light a hand torch. Do not use matches or a lighter.
- Begin gas-welding tasks:
 1. Open the acetylene valve on the hand torch and light the gas.
 2. Open the hand torch oxygen valve and adjust the flame.
- Turn off gas cylinders when welding operations are suspended for a substantial period of time.
- Complete gas welding:
 1. Close the hand torch acetylene valve.
 2. Close the oxygen valve.
 3. Close the acetylene cylinder valve
 4. Close the oxygen cylinder valve.
 5. Release pressure by opening both hand torch valves
 6. Turn off the regulator adjusting handle.
 7. Close both hand torch valves.