Welding Safety Rules (revised Oct 19, 2011)

Everyone working in the Hot Work area while welding is being done:

1. Must read and understand the following:
   a. SIUE Hot Work Policy
      NOTE: A current Hot Work Permit for the project being worked on must be posted in the area where hot work is being done.
   b. Safety in Welding, Cutting and Allied Processes (ANSI Z49.1:2005)
      i. Part 1 General Aspects: sections 1, 2, 3, 4, 5, 6, 9
      ii. Part 2 Specific Processes: section 11

2. Must wear safety glasses with side shields.

In addition to the above, welding operators and assistants must also:

1. Read and understand the operating instructions for the welding equipment being used.
2. Read and understand the Compressed Gas Cylinders rules below.
3. Inspect the equipment to be sure it is in safe operating condition and if not stop until the problem is fixed.
4. Wear a properly fitted and operating welding helmet (along with safety glasses with side shields), leather gloves, long pants, a long sleeve shirt, sturdy and work boots. All fabrics worn should be dry and not burn or melt easily.
5. Be sure that welding curtains or other required protection is in place.
6. If required by the Hot Work permit, be sure a designated fire watch person is in place and alert.
7. Be sure ventilation is adequate to keep from breathing the weld fumes. Use a fan to create a draft to remove the fumes from the immediate area if necessary.
8. Do not weld painted or plated steel. Zinc-plated or galvanized steel and many other coatings produce poisonous fumes.
9. Ensure that people working nearby know that welding is to begin.
10. Do NOT allow bare skin to touch the metal table or the parts being welded. Be sure everyone else in the vicinity also avoids touching the table or the work.
11. When a piece being welded is set aside alert others in the area to the fact that it is hot.
12. Always turn the cylinder gas valve off (fully clockwise) when done welding.

Compressed Gas Cylinders

Compressed gas cylinders are potentially very dangerous if not handled properly. They store a tremendous amount of potential energy and can explode if ruptured, even if the contents themselves are not flammable.

If a cylinder falls over the valve may break allowing the gas to escape uncontrollably causing the cylinder to become an unguided missile. The cylinders are also very heavy even when empty so a falling cylinder can seriously injure or kill.

1. The shield gas must be appropriate for the type of welding and materials used.
2. Always stand to the side of the regulator gage and not facing it while opening the cylinder valve.
3. When not located in the welding cart, the shield gas cylinder must always be properly secured so that it cannot fall over.
   NEVER leave the cylinder standing by itself without anchoring to a wall or part of the structure or other stable object with a steel chain or strong strap.
   a. NOTE: The Lincoln MIG welder cart is rated for a cylinder capacity of 80 cubic feet. Do NOT put a larger cylinder on the cart.
   b. NEVER transport the gas container with the regulator assembly attached.
4. If the cylinder valve is damaged in any way or does not operate correctly then leave it alone. The cylinder will need to be replaced.
5. To transport the gas cylinder:
   a. Be sure the valve at the top of the tank is turned fully clockwise to off.
   b. Be sure the pressure between the regulator and the welder has dissipated.
   c. Loosen the brass nut to remove the regulator from the side of the cylinder valve.
   d. Immediately screw the valve safety cap securely onto the top of the tank.
   e. The cylinder must NEVER be transported in the passenger compartment of any vehicle.
   f. The cylinder must be securely held in place to keep from rolling or bouncing.

Think and practice safety - Always pay attention to what you and others are doing.