Appendix A:

Welding and Cutting Checklist

Welding and cutting operations can result in various hazardous conditions. Welding, cutting, and allied processes produce molten metal, sparks, slag, and hot work surfaces that can cause fire or explosion if precautionary measures are not followed. Electric shock from welding and cutting equipment can result in death or severe burns. Additionally, serious injury can occur if the welder falls as a result of the shock. Many welding, cutting, and allied processes also produce toxic fumes and gases which must be controlled. The below sample checklist is not all-inclusive and should be used as a means to help monitor your worksite.

Topic	Yes	No
Cylinder Storage		
Are welding gas cylinders stored upright?		
Are valve protectors placed on all cylinders not in use?		
Are cylinders secured with a chain, strap, or cable to a stationary building support or secured to an appropriate cylinder cart to prevent them from tipping or falling?		
Are cylinders stored in designated locations, away from exits, traffic aisles, elevators, stairs, or gangways?		
Are cylinders kept away from sources of heat and electrical circuits?		
Are cylinders stored in a dry, well-ventilated area at least 20 feet from combustible materials?		
Is the cylinder storage area marked with appropriate precautionary signs?		
Are oxygen cylinders separated from fuel gas (i.e. acetylene) by a distance of at least 20 feet or separated with a fire resistant barrier with a ½ hour fire rating?		
Are cylinders legibly marked to clearly identify the gas contained?		
Are empty cylinders appropriately marked, with valves closed, and separated from full cylinders?		
Are cylinders regularly examined for obvious signs of defects, deep rusting, or leakage?		
Operations		
Is only approved welding apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) used?		
Are cylinders, cylinder valves, couplings, regulators, hoses, and related welding equipment kept free of oily or greasy substances?		
Are friction lighters readily available for lighting torches?		
Are hoses free from damage or decay?		

Topic	Yes	No
Are there any repairs of welding cable within 10 feet of the holder? If yes, they must be discarded.		
Are the arc welder cable connections insulated for protection?		
Are electrodes removed from holders when left unattended?		
Before removing a regulator, is the valve closed and the gas released from the regulator?		
Are welding generators properly grounded in accordance with the manufacturer's recommendations?		
When mounted on vehicles or trailers, are portable welding generators grounded to the frame of the vehicle by a ground wire or bolted metal-to-metal contact?		
Is sufficient ventilation provided in the welding/cutting area?		
Are oxygen and fuel gas cylinders prohibited in confined spaces?		
Hot Work		
Is there an established hot work permit program?		
Is all combustible material removed to at least 20 feet away from welding and cutting areas?		
When the object to be welded cannot be moved and/or surrounding fire hazards cannot be removed, are shields used to confine heat, sparks, and slag?		
When welding or cutting is performed on walls, floors, or ceilings, are precautions taken to protect combustibles on the other side?		
Are sufficient fire extinguishers readily available?		
Are fire watchers assigned whenever welding or cutting is performed in locations where a serious fire may develop?		
If combustible floors are wet down, are personnel protected from possible electrical shock?		
Is welding or cutting prohibited near flammable liquids or heavy dust concentrations?		
Personal Protective Equipment		
Are appropriate eye protection helmets, hand shields, and goggles provided and readily available?		
Are protective garments such as leather gloves, heavy shirt, aprons, shoulder covers, leggings, high shoes, and a cap available?		
Are welders prohibited from wearing pants with cuffs or shirts with open pockets or any clothing that can catch and hold molten metal or sparks?		
Are employees instructed to remove any combustibles, such as a butane lighter or matches, from their clothing prior to welding or cutting?		
Are noncombustible screens or barriers used to protect adjacent personnel?		

Topic	Yes	No
Are respirators available to protect workers from metal fumes during welding or cutting?		
Training		
Are only authorized and trained personnel permitted to use welding, cutting, or brazing equipment?		
Have employees been instructed in the handling and storage of cylinders, safety valves, relief valves and related welding equipment?		
Have employees been instructed on the proper means to transport cylinders?		
Have employees been instructed to “crack” the valve (standing to one side momentarily open the valve and then close it immediately) before connecting a regulator to clear the valve of dust or dirt?		
Are employees prohibited from leaving cylinder valves open when not in use, such as during breaks and at the end of a shift?		
Are employees reminded to open valves slowly by hand to avoid gauge damage?		
Are employees reminded not to coil or loop welding electrode cable around their body?		
Is welding equipment frequently inspected for wear and damage?		
Is damaged welding equipment immediately removed from service?		
Are welders and adjacent employees screened (i.e. interviewed) for having a pacemaker or defibrillator prior to entry into a welding/cutting area?		