# Welding Shop Safety Inspection Checklist

**Inspector Name: _____ Date: _____**

**Location/Shop: _____**

## General Facility & Supervision

[ ] Instructor is present in the shop anytime a student is present.
[ ] Forklifts are not operated by students; keys are stored in a locked box (not in the ignition).
[ ] All equipment (especially top-heavy items) is secured/anchored to prevent toppling or walking per manufacturer requirements.
[ ] All equipment is in good working condition with all guards and housing in place.
[ ] Proper working clearances are maintained: at least 28 inches of walking clearance between operating machines, and adequate spacing so large workpieces do not interfere with adjacent machines.
[ ] Combustible items are kept at least 35 feet away from hot work operations (welding, cutting, grinding, etc.).
[ ] Cutting on drums or containers previously used to store fuel gases (or of unknown previous use) is strictly prohibited.
[ ] Current projects are stored securely where they do not create a hazard.
[ ] Emergency exits and the routes to them are clearly identified and kept completely clear.

## Personal Protective Equipment (PPE)

[ ] Signs are posted at each entrance outlining required PPE, and visitor PPE is available.
[ ] Safety Data Sheets (SDS) are reviewed for appropriate chemical PPE.
[ ] OSHA-compliant eyewear (stamped Z-87.1) is available and worn by students and visitors.
[ ] A proper welding hood equipped with correct lenses is worn for welding. Safety glasses must be worn underneath welding hoods and face shields.
[ ] Hearing protection (earplugs, earmuffs, etc.) is available and used.
[ ] Respirators are cleaned, properly stored, and worn when required (users must be medically certified).

[ ] Welding gloves/gauntlets are worn for cutting, grinding, welding, or handling hot/sharp metals.
[ ] Gloves are strictly prohibited when working around moving machinery that poses a snag hazard.
[ ] Protective clothing consists of cotton, a leather welding apron/jacket, and leather boots. (Poly-blend fabrics are strictly prohibited).

## Safe Work Practices & Housekeeping

[ ] Signage and training regarding safe work practices are active.
[ ] Jewelry (necklaces, bracelets, rings, etc.) is removed before work.
[ ] Hair is securely tied back.
[ ] Horseplay is strictly prohibited.
[ ] All injuries, near misses, and equipment damage are reported immediately to the instructor.
[ ] Exits are clear and no excessive accumulation of materials is present.
[ ] Tools and scrap metals are not left on the floor.
[ ] Oils are wiped from the floor immediately; floor absorbents are disposed of per EPA/DEQ requirements.
[ ] Catch bins under equipment are not overflowing with shavings or oils.
[ ] Soiled rag bins are emptied daily, not overloaded, and do not contain regular trash.

## Emergency Equipment

[ ] First aid kit is properly stocked and accessible.
[ ] Stop The Bleed kit is available.
[ ] Eyewash station and emergency shower (if installed) are clean, unobstructed, and working properly.
[ ] Eyewash/shower is activated weekly (check flow, temperature, flush stagnant water) with an inspection log present at the station.

## Power & Electrical

[ ] Emergency stop button is available and properly labeled (e.g., electrical, dust collection system).
[ ] All equipment features a positive on/off switch or stand-alone electronic device to prevent auto-starting after a power failure.

[ ] Stationary equipment is plugged into a permanent power source (no extension cords, power strips, or multiplex adapters).
[ ] Equipment cords are intact with no cuts, deterioration, or bare wires.
[ ] Extension cords are grounded (no two-wire zip cords), in good repair, used only as temporary power for handheld tools, and do not create trip hazards.
[ ] Cords are not run through doorways, windows, or walls.
[ ] Power panel fronts are secure (all openings covered by breakers/blanks) and all breakers are labeled.

## Ventilation & Environmental Controls

[ ] Ventilation system has proper flow (100 fps) to pull vapors away from the user.
[ ] Bins are emptied regularly.
[ ] No open/unused ventilation tubes are left active at empty workstations.
[ ] Documentation is present showing inspection and cleaning frequency of the ventilation system.
[ ] Plasma arc cutter is equipped with a ventilation hood, down draft, or a cutting table with water filtration.
[ ] Floor drains are either connected to the sewer (with authority approval) or equipped with an approved oil-water separator/tight tank.

## Flammable Storage & Chemicals

[ ] Flammable/combustible liquids are never stored or used near hot work operations.
[ ] Flammables exceeding 25 gallons are stored in a rated flammable storage cabinet.
[ ] Flammable storage cabinets are not loaded past capacity.
[ ] Flammable liquids (paints, solvents, etc.) are strictly kept in properly rated cabinets.
[ ] SDS is complete and available.
[ ] All chemicals are stored in original containers with proper lids and original manufacturer's labels (no homemade labels or makeshift caps).

## Compressed Air

[ ] Limiting device restricts pressure to no higher than 30 PSI.
[ ] No PVC/CPVC piping is used for distribution lines.
[ ] Compressed air is never used for cleaning workstations or blowing off clothing/people.
[ ] Hoses are in good repair, coiled, and stored organized to prevent trip hazards.

## Compressed Gases & Regulators

[ ] Oxygen and acetylene cylinders not in use (within 24 hours) are stored off carts with regulators removed and safety caps in place.
[ ] Oxygen cylinders are separated from fuel-gas cylinders (acetylene, propane, etc.) and combustibles by a minimum of 20 feet OR a 5-foot high noncombustible barrier with a ½-hour fire-resistance rating.
[ ] All cylinders (oxygen, fuel gas, inert gas) are stored upright and secured against toppling.
[ ] Regulators are in good working condition and gas pressure is released when not in use.
[ ] Flashback arrestors are installed on oxygen/acetylene torch sets.
[ ] Torch sets are lighted strictly with a flint striker.
[ ] Hoses are in good repair and routed to prevent trip hazards.
[ ] Oxygen is never used to blow off clothing or work surfaces.
[ ] LPG is stored outdoors or in a specifically designed/ventilated LPG storage area.

## Welding Operations & Metal Storage

[ ] **Arc Curtains:** Placed appropriately to protect others from arc flash, free of holes/tears, and long/tall enough to cover the anticipated working area. Portable curtains are available for work outside booths.
[ ] **Stick Welding:** Electrode holder insulation is intact (no tears/holes), cable assembly has no exposed wiring, machines are grounded, and cables do not create trip hazards.
[ ] **Metal Storage:** Metal sheets are stacked orderly, stored in bins for use/disposal, and heavy pieces are lifted by multiple people.

## Machinery Guarding & Operation

[ ] **General Guarding:** All machines (benders, breaks, sanders, grinders, saws, presses) have manufacturer-required guards and interlocks installed.
[ ] Adjusting keys and wrenches are actively removed before turning on any machine.
[ ] **Lathes:** Guards are installed and properly cover the rotating part (chuck).
[ ] **Pedestal Grinders:** Secured to the ground/surface. Tool rests adjusted to within ⅛” of the wheel; tongue guards adjusted to within ¼” of the wheel.
[ ] **Metal Cutoff Saws (Chop/Horizontal Band Saws):** Stock is tightly clamped before cutting (clamps available), and the upper portion of the blade is guarded.