PURPOSE

The purpose of this program is to prevent any fires or injuries that may result from hot work processes.

1. WELDING & CUTTING REQUIREMENTS
2. Before cutting or welding is permitted, the area shall be inspected by a “Competent Person” and must be granted authorization for welding and cutting operations. Precautions that are to be taken shall be in the form of a written “Hot Work Permit”.
3. When working in a confined area, ventilation, cylinder securement, lifelines, electrode removal, gas shutoff and warning signs must be addressed.
4. Any personnel involved with the welding, cutting or burning of lead base metals, zinc, cadmium, mercury, beryllium or exotic metals or paints shall have proper ventilation or respiratory protection.
5. When burning or welding anywhere on a mobile rig or platform where drilling, work over or wire line work is in progress, a means of signaling must be prearranged whereby operations will cease should a hazardous situation arise.
6. The welding area must be thoroughly washed down upon completion of welding activities, except in areas where it is impractical.
7. Designated welding areas;

* Shall be outlined in yellow, and
* Must be shown on building drawings and maintained at the company headquarters.

1. Personnel operating the arc welding or cutting equipment in an area with wet flooring must be protected from possible shock.
2. Welding must be direct current. Alternating current welding is prohibited except for special alloys.
3. Engine driven welding machines must;

* Have properly insulated cables and electrode holders;
* Have controls and accessories that are in good operating condition; and
* Be diesel driven and equipped with drip pans, spark-arresting muffler, controls and air box shutdowns.

1. FIRE-WATCH REQUIREMENTS
2. Fire-Watch personnel shall have fire extinguishers readily available. A fire watch shall be maintained at least ½ hour after the welding or cutting operation is completed.
3. The Fire-Watch shall be required when welding, cutting, brazing and/or soldering is performed near:

* Locations with combustible materials.
* Locations where other than a minor fire might develop.
* Combustible materials closer than 35 ft. to point of operation.
* Combustibles that are more than 35 ft. away, but are easily ignited.
* Combustibles within a 35’ radius of a wall or floor openings
* Combustible materials adjacent to the opposite side of metal partitions, ceilings or roofs.

1. ADDITIONAL WELDING & CUTTING SAFEGUARDS
2. First aid equipment shall be available at all times.
3. The welding area must be restricted to the above spaces of the work area.
4. Prior to the start of any welding or cutting operation, if the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed. If all the fire hazards cannot be removed, then guards and/or barriers shall be used to confine the heat sparks and slag and to protect the immovable fire hazards.
5. If fire hazards cannot be taken to a safe place or guards cannot be used to confine heat, sparks, slag and protect the immovable fire hazards, the welding and cutting shall not be performed.
6. INSPECTION AND MAINTENANCE
7. Visual inspections shall be conducted to determine that compressed gas cylinders are in a safe condition.
8. Check valves should be installed at both the torch end and the regulator end of all hoses.
9. Hoses and connections should be inspected regularly for damage and stored in cool areas and protected from damage.
10. Equipment Operators shall report any equipment defects or safety hazards and shall discontinue use until its safety has been assured. Repairs shall be made only by qualified personnel.
11. Soapy water should be used to detect leaks on Compressed Gas Cylinders. If the leak is at the junction of the cylinder valve and cylinder, do not try to repair it. Contact the supplier and ask for response instructions. Leaking cylinders should be moved to an isolated, well-ventilated area, away from ignition sources.
12. Cylinders must be equipped with the correct regulators. Regulators and cylinder valves should be inspected for grease, oil, dirt and solvents.
13. HANDLING OF COMPRESSED GAS CYLINDERS, HOSES AND TORCHES
14. Oxygen and acetylene cylinders shall be handled carefully even when they are empty. Rough handling may damage cylinders or cause leakage with consequent danger of fire and explosion.
15. Only tools provided by the supplier should be used to open and close cylinder valves.
16. Cylinder valves should be closed with caps in place, except when in use. When a cylinder cap cannot be removed by hand, the cylinder shall be tagged "Do Not Use" and returned to the designated storage area for return to vendor. Dented or damaged cylinders shall not be used and must be tagged and returned to the owner.
17. Cylinders must always be fastened securely in an upright position. An oxygen cylinder may be mounted horizontally on a welding truck.
18. Do not transfer welding gas from one cylinder to another.
19. If a hose catches fire, close the valve at the cylinder, if it is safe to do so. Do not try to extinguish the fire by pinching the hose.
20. Cylinders must be transported in a vertical secured position using a cylinder basket or cart, and must not be rolled. Regulators should be removed and cylinders capped before moving or transporting. Cylinders should not be dropped or permitted to strike against other objects violently. Never lift cylinders by their protective caps.
21. Cylinders should be marked as "MT" and dated when empty. Never mix gases in a cylinder and only trained, qualified professionals should refill cylinders. Empty cylinders must be handled as carefully as full cylinders.
22. STORAGE & LABELING OF COMPRESSED GAS CYLINDERS & REGULATORS
23. Compressed Cylinders must be stored in a safe, dry, well protected area. When stored inside of buildings, cylinders shall be stored in a well-ventilate location. Cylinders shall not be kept in unventilated enclosures such as lockers and/or cupboards.
24. Compressed Cylinders shall be clearly label or stenciled so as to identify gas content. No compressed gas cylinder should be accepted for use that does not legibly identify its content by name.
25. Compressed Cylinders must be secured at all times in such a way as to avoid them being knocked over or damaged.
26. Compressed Cylinders must be stored in a vertical position and segregated based upon contents. Twenty (20) feet should be maintained between oxidizers and flammables or firewalls erected at least 5 feet high and with a fire rating of 30 minutes.
27. Compressed Cylinders must be protected from damage, corrosion, sunlight and kept away from heat sources.
28. Cylinders should be capped when they are not being used.
29. Storage areas for full and empty cylinders must be designated and labeled. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways.

Note: Never store Compressed Gas Cylinders in public hallways.

1. EMPLOYEE TRAINING REQUIREMENTS
2. Personnel assigned to operate arc welding equipment must be properly instructed and qualified to operate such equipment and must be familiar with 29 CFR 1910.254 and 1910.252(a)(b) & (c).
3. Welders and their supervisors must be suitably trained in the safe operations of their equipment and the safe use of the process.
4. Cutters, welders and their supervisors must be suitably trained in the safe operations specific to their equipment and operational processes.
5. Assigned Fire-Watch personnel must be trained in the use of fire extinguishing equipment and familiar with the facility for the purpose of sounding an alarm in the event of a fire.
6. Any worker in charge of oxygen or fuel-gas supply equipment (including distribution piping systems and generators) must be instructed and judged competent for such work.
7. Employees must be trained on the proper use, handling and storage of Compressed Gas Cylinders.
8. Welders & Cutters must be trained the proper maintenance of their equipment including housekeeping and proper disposal of used welding stubs.

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| **Reviewed and Approved** |
| Quality Manager or President |  |  |
|  | Date |