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| Revision #:Written by: | Date: Month DD, YYYYApproved by: |
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| Related Documents:  | * Owner’s Manual of Gas or ARC Welder
* Part 10 Occupational Health and Safety General Regulations
* SDS for Welding Gases
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| When to use this SWP: | To educate & train employees, contractors, and service personnel, to the potential hazards involved with the operation and maintenance of welding equipment. To establish and maintain precautions and safe work practices for use of this equipment, as it relates to operations. |
| Hazards & Risks: | * Exposure to metal fumes
* Ultraviolet Radiation
* Burns
* Fire and/or explosion
* Eye Damage
* Electrical Shock
* Cuts
* Noise
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| Personal Protective Equipment: | CSA approved * Steel toe footwear
* Welders mask
* Mask or respirator
* Flame retardant clothing,
* Hearing protection
* Welding gloves
* Contain long & loose hair – includes beards
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| Training Requirements: | * Training by a competent experienced person
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| Communication Process: | * Let other workers know of welding activities on the farm. Keep the fire extinguisher close by and establish a fire watch if needed. Directions to follow can apply to ARC and Gas welding.
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| **Equipment & Supplies:** | * First Aid Kit
* Fire Extinguisher
* Cell/Smart Phone or two-way radio
* Oxygen
* Acetylene
* Torch
* Ventilation
* Power Source
* Shielding Gas
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| 1. Employees, when welding, must wear gloves, arm covers (if applicable), and a welding face shield, in addition to any other regular PPE or safety equipment.
2. There must be a charged fire extinguisher available in the immediate area.
3. Clear the work area of flammable materials.
4. Clean the floor and work area of dust and debris.
5. If the floor is combustible, wet it or cover it with sheet metal.
6. Ensure proper screens are in place, to prevent welding flash to fellow employees.
7. Use clamps, vice, locking pliers or similar to hold material together
8. Employees must ensure proper ventilation when they are welding.
9. Ensure tanks are safely secured to the wall or table or cart as it applies to the area. Always check for leaks on the equipment before use and make sure that all connections are tight.
10. When not in use or transporting ensure all valves are shut off. Store the welder, tanks, and screens, in a safe manner, in the appropriate area.
11. When transporting tanks to sites remove and store all gauges and torches. Also transport with the safety cap on and standing and secured upright.
12. Always follow Manufacturers recommendations for maintenance procedures.
13. Where other workers may also be exposed to the hazards created by welding, cutting and burning, protect other workers by the use of “screens”.
14. Never start work without proper authorization.
15. Check the work area for combustible material and possible flammable vapours before starting work.
16. A welder should never work alone. A fire or spark watch should be maintained.
17. Check cables and hoses to protect them from slag or sparks.
18. Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all precautions have been carried out and permits obtained.
19. Never enter, weld or cur in a confined space without proper gas tests and a required safety lookout.
20. When working overhead, use fire resistant materials (blankets, tarps) to control or contain slag and sparks.
21. Cutting and welding must not be performed where sparks and cutting slag will fall on cylinders (move all cylinders away to one side).
22. Open all cylinder valves slowly. The wrench used for opening the cylinder valves should always be kept on the valve spindle when the cylinder is in use.
23. Store cylinders separately. See SDS.
24. Check the Ground connection for ARC Welding
25. Check the correct type and size of electrode is used for the task performed in arc welding.
26. Check polarity to see if it matches that of the electrode.

Procedure:1. Conduct a hazard assessment before starting work and document it on the Workplace Hazard and Corrective Action Assessment form.
2. Inspect and put on the required PPE listed above.
3. Ventilate the work area.
4. Erect welding screens.
5. Have fire response equipment on standby. Have a fire watch plan.
6. Communicate your work plan to other workers.
7. Inspect machine and/or cylinders for defects or damage.
8. Open cylinder valves slowly – keep the wrench close to the tanks while in us or select the correct rod and amperage range for the work.
9. Light torch or turn on machine
10. Perform work.
11. Turn off torch or machine
12. Shut off cylinder valve and release pressure in the hose when finished.
13. Roll up hoses.
14. Store cylinders and machine away from traffic in a secure area.
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| EMERGENCY PROCEDURES: | In case of emergency, contact 911 and the farm owner immediately. Remove yourself from harm’s way and ensure no one else is at risk.  |