Safe Operating Procedures

SOP 15 – Oxy Acetylene – Cutting & Welding

DO NOT proceed in this operation unless appropriately instructed in its safe use and operation and permission to operate has been given.

COMPULSORY PPE

PRE-OPERATIONAL SAFETY CHECKS
1. Wear proper clothing and Personal Protective Equipment (PPE).
2. Ensure this OXY welder has a suitable safe work area.
3. Ensure the equipment is fitted with appropriate flash arrest (blow back) arrest system.
4. Keep the area clean & free of grease, oils & flammables.
5. Hoses and regulators to be inspected and in good condition.
6. Ensure the area is well ventilated (with fume extraction if required).

OPERATIONAL SAFETY CHECKS
1. When setting up, check that the oxygen and acetylene regulator adjusting knobs are closed (OFF), and are loose.
2. Check that both handpiece blowpipe valves are closed.
3. Slowly open the cylinder valves on each gas cylinder by half a turn (180°) only – for a faster emergency shutdown.
4. Screw in the regulator adjusting knobs slowly until the delivery pressure gauges are both correct.
5. Purge the oxygen gas line and check for constant gas flow. Re-adjust delivery pressure if necessary.
6. Then purge the acetylene gas line and check for constant gas flow. Re-adjust pressure if necessary.
7. Open the acetylene blowpipe (handpiece) valve very slightly and light with a flint lighter ONLY.
8. Continue to slowly open the acetylene valve until the correct flame length is achieved.
9. Slowly open the oxygen blowpipe (headpiece) valve until a neutral flame is produced.
10. Always be very aware of the dangers of a naked flame.
11. Note: When shutting down, always close the acetylene blowpipe valve first.

HOUSEKEEPING
1. Ensure both gas bottles are off and the welder secured with bottles stored upright at completion of work.
2. Leave the work area in a safe, clean, & tidy condition.
3. Ensure torch tips are cleaned as per manufacturer’s recommendations.

This SOP should be used in conjunction with relevant machinery manuals and manufacturer recommendations.
Safe Operating Procedures

POTENTIAL HAZARDS

1. Explosion
2. Burns
3. Eye Injury
4. Fire and Explosion

OTHERS

- Australian Standards – AS 4839 Safe Use of Portable Oxy-fuel Gas Systems

SPECIAL NOTE

NO PERSONNEL ARE TO USE THIS EQUIPMENT PRIOR TO OBTAINING:

- COMPETANCY IN THE CORRECT USE OF THE EQUIPMENT
- READING AND FULLY UNDERSTANDING THE OPERATOR'S MANUAL
- READING THE STANDARD OPERATING PROCEDURE
- UNDERGOING THOROUGH PRACTICAL TRAINING WHILE PROPERLY SUPERVISED
- SUPERVISOR TO ENSURE SOP SIGN OFF

All completed SOPs are to be recorded in TRIM Container A17/2181 utilising a TRIM license in your School/Business Unit. Completed SOPs are to be published on Safety Hub for ongoing utilisation.

Employee Name: ____________________________________________________________

Employee Signature: ___________________________ Date: ____________________

Supervisor Name: __________________________________________________________

Supervisor Signature: ___________________________ Date: ____________________