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| --- | --- | --- | --- | --- | --- |
| Site / Area: |       | Date of Assessment |       | Risk Assessment # | **064RA** |
| Completed by (name) |       | Signature |       |
| In Consultation with: |       | Signature |       |
| Identify / describe activity, equipment, area or event you are assessing: | **Oxy – Acetylene Welding** |
| Authorised by: |       | Signature: |       | Date: |       |
| In conjunction with this risk assessment, training / education and development of a relevant SOP may be required. |
| **Step 1:** **Identify the hazard/s / Impact:**What do you believe are the hazards?What could happen? | **Step 2: Assess the potential risks:**Template only MUST modify to site conditionsWhat do you believe are the risks?How could this happen? | **Step 3: Reducing the risk:**What do you believe can be done to reduce the risk?Controls |
| **Hazardous Manual tasks*** Manual Handling of the plant and gas bottles
 | * Pushing/pulling the oxy-acetylene set around the workshop
* Moving projects on/off the bench
 | * Plant is mounted on a trolley for ease of movement
* All workers are trained in safe manual handling techniques
 |
| **Hazardous Chemicals*** Storage of gas bottles
 | * Sprains / strains
* Gas leak
 | * Gas bottles must be secured to trolley &/or wall at all times.
* Store cylinders in an upright position to ensure the safety device functions correctly
* When cylinders not in use, cylinder valve to be kept closed.
 |
| **Radiation*** Welding Flash
 | * Damage to eyes
* Burns
 | * Welding mask with correct grade lens must be worn
* Where practical suitable partitions to be placed around work area
* Safety glasses to be worn
* Other persons inside work area must wear similar eye protection Install non-flammable screens and partitions.
* Signs used to warn that welding is occurring.
* Provide PPE including filter shades for goggles and face shields to protect the eyes from radiation. Gloves and other protective clothing to be worn to cover exposed skin.
 |
| **Airborne Contaminants*** Noxious fumes or flames
 | * Burns
* Respiratory problems
* death
 | * Gloves to be worn to prevent burns to hands and lower arm
* Mechanical extraction fitted where possible
* Use in well-ventilated areas
* Long sleeve clothing to be worn, secured.
* Welding apron with correct grade protection to be worn
* Welded material to be allowed to cool down before handling
* Any other work participants to follow same requirements
* Operator to ensure that work pieces are to be free of any oils or other flammable materials before welding occurs.
* No flammable materials or liquids to be near the welding area
* Gas hoses to be checked for any damage before starting welding
* DO NOT USE IF ANY SUSPICIOUS DAMAGE IS EVIDENT
* ENSURE FLINT LIGHTER IS READY TO USE BEFORE TURNING ON GAS
* TURN ON ACETYLENE GAS FIRST AND LIGHT IT BEFORE TURNING OXYGEN ON (Refer to operating instructions)
* Gas hoses to always be well clear of weld splatter
* Ensure welding area is well ventilated
* Operator to be aware of proximity of a fire extinguisher
* ENSURE WELD TORCH VALVES AND GAS REGULATORS ARE CORRECTLY CLOSED WHEN WELDING/CUTTING COMPLETED
* Flashback arresters are fitted to the handpiece.
 |
| **Machinery & Equipment*** Fire & explosion
 | * Serious injuries
* Burns
 | * Work areas are well ventilated
* Work area is free from rubbish, paper or dust that could be potential fuel sources or produce dust explosions.
* Use flash back arrestors on gas hoses to prevent the flames travelling back and igniting the gas in cylinder.
* Drain and purge equipment, such as gas hoses, and lock the gas off at the valve immediately after use.
* Do not store flammable and combustible materials near welding area.
* Firefighting equipment readily accessible near welding area.
* Complete Hot Work Permit.
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| **Gravity*** Slips, trips and falls
 | * Sprains / strains
 | * Ground in work area to be free of obstructions
* Ground to be checked for any grease or liquid spills
* Safety footwear to be worn and care taken to prevent slips and trips
* Work area to be clear of any obstructions which might cause interruptions to welding operation
* Any other work participants to follow same requirements
* Hoses to be kept secure and clear of working zones.
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| **Extreme Temperatures*** Prolonged working with heat
 | * Dehydration
* Heat strain
 | * Take regular breaks
* Cool potable water available
 |
| **Other:** |  |  |
| **Review hazard / risk assessment if task or circumstances change & at intervals appropriate to the level of risk (minimum 5 years)** |
| **Step 4: Monitor & Review:** |
| Were the controls effective? | Were there any unforeseen hazards / incidents? | New controls |
| Yes | [ ]  | No | [ ]  | Yes | [ ]  | No | [ ]  |
|  |  |  |
| Name: |  | Signature |  | Date |  |