

USSL Risk Assessment

Risk Assessment No		57		Activity		Welding Operations.		Locations		Site Works		
Assessment Undertaken by		M. Watson		Assessment Date		Jun-17		Review Date		1/6/18		
Risk Ratings												
Persons at risk (PAR)		Severity / Harm Rating (S)				Likelihood (L)						
E	Employees / Contractors	1	Negligible injury or no injury				1	Extremely unlikely to occur at any time				
P	Members of Public	2	Minor injury requiring First Aid				2	A rare combination of factors would be required for an incident to occur				
V	Visitors	3	Lost time injury				3	Could happen, but considered unlikely under normal circumstances				
C	Clients	4	Single serious injury or single death				4	Not certain, but an additional factor may result in an incident				
		5	Multiple deaths and or serious injuries				5	Almost inevitable that an incident will result - Highly likely to occur				
Tolerance rating												
15 - 25		DANGER - Task/activity should not proceed. Further control measures are to be put in place to reduce risk. When in place the level of risk should be re-assessed for adequacy before the work recommences.										
7 - 14		SIGNIFICANT RISK is attached to this task/activity. Look critically at ways of reducing the level of risk to a more tolerable level by improving existing control measures or by introducing new controls.										
1 - 6		TOLERABLE RISK - Consider if risk is "as low as reasonably practicable", If not try to reduce risk further by improving control measures. Keep under review and continue with task/activity, but with caution										
NB. Full PPE will be utilised as a matter of course during any works undertaken												
Initial Assessment No controls						Risk Mitigation Measures						
Item No	Hazard Identification	PAR	S	L	Score	Control Measures	S	L	Revised Score	Risk Acceptable		
1	Welding Operation, Fire.	E,C	4	4	16	All welding Operations should be carried out in conjunction with hot work permit. Ensure areas are free from flammable materials before starting work and check all area after completion for likely smouldering materials. Welding work should cease at least 1hr before the shift ends. Ensure fire extinguishers are present and suitable for the material being welded and gases used (Usually CO2 or Dry Powder). Dispose of used rods, electrodes and hot metal in a suitable container. IF IN DOUBT SEEK ADVICE FROM YOUR SUPERVISOR.	4	1	4	Yes		
2	Welding Operations, Electric Shock	E	4	4	16	Ensure cables, electrode holders and cable connections are in good condition and insulation is complete. Ensure welding machine is correctly earthed DO NOT connect earth lead to electrical circuits or pipes containing flammable materials . DO NOT weld while standing in water or change electrodes while standing on wet or earthed surfaces. Never touch live metal parts with bare skin or wet clothing. IF IN DOUBT SEEK ADVICE FROM YOUR SUPERVISOR.	4	2	8	Yes		
3	Welding Operation, Fumes and gases	E,C	3	4	12	Wear correctly filtered respirator for low level volume works. (Consult your PPE Provider for the correct type). Additional forced ventilation/extraction may be required in a confined space environment. (SEE BELOW). IF IN DOUBT SEEK ADVICE FROM YOUR SUPERVISOR.	3	2	6	Yes		
4	Welding Operation, Confined Space	E	4	4	16	Any welding work to be carried out in a confined space must be in conjunction with a confined space permit to work system. Only trained, authorised personnel are permitted to enter a confined space. Ensure all tanks, vessels and pipes have been purged and declared safe to work on. Check to see weather additional ventilation or breathing apparatus is required. IF IN DOUBT SEEK ADVICE FROM YOUR SUPERVISOR.	4	2	8	Yes		
5	Welding Operations, Hot Metal, Radiation ,Arcs, Manual Handling.	E,C	4	4	16	Assume all weld joints are hot. Mark welded work as hot or place small pieces in a suitably marked container. Flame resistant clothing is required for body, hand and foot protection. Filter lenses will be required for eye protection. (Consult your PPE Provider for the correct type). Warn others in the vicinity before striking an arc. Use screens to protect others from arc radiation. Use Mechanical means where possible to move materials and equipment. And use trained manual handling techniques where mechanical means cannot be used.	4	2	8	Yes		
6	Fire and Explosion: Storage, use and movement of compressed gas cylinders.	E,C	5	4	20	Only have the required amounts of cylinders at work areas (1 Days Supply). Use a bottle trolley to secure cylinders upright. Store spare cylinders correctly in a compound bottle rack. Ensure cylinders have been fitted with flash back arrestors at cylinder gauge ends and non-return valves at the inlets to the blowpipes. Close valves before moving cylinders and after use. Do not allow cylinders to become heated. Keep oil away from cylinders and valves etc. If you suspect a leak, move the cylinder into the open air, contact your supervisor.	5	1	5	Yes		