RISK ASSESSMENT			
Assessment Title:	***Gas Welding & Cutting – Use of Equipment & Storage***	Reference Number:	**GRA007.01**
		Company Name:	**Oakbank Waste Management Ltd**
		Department / Location:	**Garage**

Risk Assessment Matrix

Risk Ratings Highlighted in 'Orange' are to be discussed– potential improvements. Risk Ratings Highlighted in 'Red' need immediate action.

Risk = Likelihood x Consequence (Multiply 'X' axis by 'Y' axis)		*Consequence (Y)*						
1 – 4	*Acceptable*		*Catastrophic (5)*	*5*	*10*	*15*	*20*	*25*
5 – 9	*Adequate*		*Major (4)*	*4*	*8*	*12*	*16*	*20*
10 – 15	*Tolerable*		*Moderate (3)*	*3*	*6*	*9*	*12*	*15*
16 – 25	*Unacceptable*		*Minor (2)*	*2*	*4*	*6*	*8*	*10*
			Insignificant (1)	*1*	*2*	*3*	*4*	*5*
				Remote (1)	*Unlikely (2)*	*Possible (3)*	*Probable (4)*	*Certain (5)*
				Likelihood (X)				

Any queries arising from this risk assessment shall be addressed immediately with Line Management / Health & Safety Manager

Hazard(s)	Risks of Harm	Persons at Risk	Risk Rating(s)			Existing Control Measures	Residual Risk Rating(s)		
	Related to hazard identified	*Persons at risk from identified hazards*	***X***	***Y***	***R***	*Existing controls measures implemented when carrying out task or using associated plant / tooling*	***X***	***Y***	***R***
Safety Note: If a suspected 'flashback' occurs immediately close the cylinder valves, both acetylene and oxygen, if it is safe to do so, the building shall be evacuated immediately and the Fire & Rescue Services and gas supplier to be contacted.									
Fire & Explosion (Equipment set up, damaged equipment, flashback or falling cylinders)	Serious injury or death from fire and explosion due to sparks, heat, and flammable materials.	Any persons in the vicinity	*4*	*5*	*20*	• Only trained, competent and authorised persons to undertake gas welding. • Equipment to be checked each day it is used, faulty / perished hoses, regulators, flashbacks must be replaced. Check guides attached to each gas set. • All cylinders MUST have flashback arrestors fitted, they must be maintained and in working order. • All combustible material must be removed or suitably covered, wherever possible, before welding starts. • Welding benches constructed from a heat-resistant non-flammable material to minimise the risk of fire. • Correct fire extinguishers available in the vicinity of the welding operation before starting to weld. • Hot work to be ceased 1 hour before the premises is exited for the final time each day. • Cylinders are always on a suitable 'trolley' and chained / secured to prevent them falling. • Cylinders stored in a safe, well-ventilated area, secured by chain / strap to prevent falling. • Storage areas fitted with suitable signs to indicate hazards, no smoking / no naked lights.	*2*	*4*	*8*
Open Flame (Burns, UV radiation or Eye related injury)	Severe or minor burns resulting from exposure to welding flame. Sun burn like burns or arc eye may also result from exposure	Welder or any persons in the vicinity	*3*	*4*	*12*	• Wear suitable face shields and goggles to provide eye protection from electric arcs, oxy acetylene flames and sparks from welding. • Wear protective gloves, coveralls and flame-retardant aprons to protect skin against burns from hot surfaces flames and sparks • Plan work carefully in 'confined' spaces, in some situations a Permit to Work may be required. • Consider access and egress and always have a second person to monitor the process and be available to assist. • Welding screens to shield others in the workplace from sparks, UV radiation. Access restricted. • Work to be planned to prevent operator contact with burning / hot materials.	*2*	*3*	*6*

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	Related to hazard identified	*Persons at risk from identified hazards*	***X***	***Y***	***R***	*Existing controls measures implemented when carrying out task or using associated plant / tooling*	***X***	***Y***	***R***
Welding Fume	Serious health risks, including respiratory problems, metal fume fever, cancers and long-term lung damage from inhaling toxic particles.	Welder or any persons in the vicinity	*4*	*4*	*16*	• Welding tasks restricted to authorised, suitably trained and competent employees. • Access to areas where welding is being carried out to be suitably restricted to authorised persons only. • Annual health surveillance to be carried out with all authorised welders. • Welders to report any health issues or concerns to Management. • Where practicable, welding to take place in a designated area, where this is not possible operators must implement these control measures in required location. • Suitable extraction system to be in place and used during all indoor welding. • When welding outdoors (or as required by the task) suitable (RPE) to be worn by the Welder. • Air-fed respiration considered the most effective RPE – any RPE used must be suitable for the task and wearer. • Any person required to wear air-fed RPE to receive suitable training / instruction on the safe use, set up and maintenance of the equipment. • When tight fitting RPE is used, employees receive face fit testing for their specific mask. • Extraction systems suitably maintained (as per the manufacturer's instructions) with a thorough examination carried out (every 14 months) by a competent person.	*2*	*3*	*6*
Manual Handling	Musculoskeletal injuries, such as strains, sprains, and back injuries, from lifting, carrying, or moving loads improperly.	Any persons handling cylinders	*4*	*3*	*12*	• Ensure that all parts of welder are secure and that any gas cylinders are strapped to unit. • Operators to receive manual handling as required. • Correct manual handling techniques to be used. • Consider the floor / area where the welder is to be used / transported. • Mechanical aids to be used for lifting wherever possible. • Operators to receive manual handling training as required. • Wherever possible use cylinder trolleys.	*2*	*3*	*6*

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	Related to hazard identified	*Persons at risk from identified hazards*	***X***	***Y***	***R***	*Existing controls measures implemented when carrying out task or using associated plant / tooling*	***X***	***Y***	***R***
Cylinder Storage	Improper cylinder storage can lead to leaks, explosions, or asphyxiation due to gas release or exposure to high pressure.	Any persons in the vicinity	*3*	*4*	*12*	• Gas cylinders are stored externally in a suitable cage / lock up. • Adequate ventilation is to be available and maintained in cylinder storage areas. • When not in use cylinder valves shall always be closed. Where supplied, protective valve caps and covers should be fitted. • Avoid storing excessive quantities of cylinders (maximum 10 where possible) • Access to gas storage areas is restricted to authorised persons only. • Cylinders are to be stored upright and secured in place with a suitable chain / strap. • Gas cylinders should be arranged so that gases with the same hazard category are grouped together. • Where possible, flammable gases and oxidizing gases should be separated by a minimum distance of 3 meters. • No naked flames, smoking, ignition sources or electronic devices are permitted in the vicinity of storage areas.	*2*	*3*	*6*