

RISK ASSESSMENT								
Assessment Title:	<b>Lithium-Ion Battery Charging</b>	Reference Number:		<b>OGRA001.01</b>				
		Company Name:		<b>Oakbank Waste Management Ltd</b>				
		Department / Location:		<b>Garage</b>				
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)	Catastrophic (5)	5	10	15	20	25
1 – 4	Acceptable		Major (4)	4	8	12	16	20
5 – 9	Adequate		Moderate (3)	3	6	9	12	15
10 – 15	Tolerable		Minor	2	4	6	8	10
16 – 25	Unacceptable		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)		
	<i>Related to hazard identified</i>	<i>Persons at risk from identified hazards</i>	<i>X</i>	<i>Y</i>	<i>R</i>	<i>Existing controls measures implemented when carrying out task or using associated plant / tooling</i>	<i>X</i>	<i>Y</i>	<i>R</i>
Battery Overheating / Fire	Fire, smoke related injuries and burns through direct exposure to batteries	Persons working within the vicinity of battery charging	3	5	15	<ul style="list-style-type: none"> <li>Batteries to be inspected prior to charging for visible signs of damage. If damage is noted the battery must not be connected to the charger.</li> <li>Chargers inspected, tested and maintained in line with manufacturer's instructions.</li> <li>Only use chargers that are specifically designed for use on the battery being charged.</li> <li>Where possible batteries to be charged in designated battery charging area, where batteries cannot be charged within the designated area the following controls must be implemented:</li> <li>No combustible materials to be stored / discarded in the vicinity of the battery charging area.</li> <li>Designated battery charging area located away from heat sources or direct sun light.</li> <li>Lithium-Ion batteries must not be covered when charging.</li> </ul>	2	4	8
Fire / Emergency Arrangements	Fire / smoke related injuries	Persons working within the vicinity of battery charging and persons in the premises	3	5	15	<p>Notable signs a battery may be at risk of fire are:</p> <ul style="list-style-type: none"> <li>Swelling or bulging</li> <li>Hissing / Popping sounds</li> <li>Overheating</li> <li>Smoke protruding</li> </ul> <ul style="list-style-type: none"> <li>Batteries to be allowed sufficient time to 'cool down' to ambient temperature before charging.</li> <li>Dry Powder &amp; CO2 Fire Extinguishers in the immediate vicinity of battery charging area.</li> <li>Staff trained in the safe use of Fire Fighting Equipment.</li> <li>Where fire cannot be extinguished using Fire Fighting Equipment within the vicinity, evacuation procedure to be followed.</li> <li>If required and safe to do so remove the battery away from any ignition sources using insulating gloves located at the battery charging area.</li> <li>Once extinguished remove the battery to designated waste battery disposal area (Banksman shed - Oakbank Waste Transfer)</li> </ul>	2	4	8

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	<i>Related to hazard identified</i>	<i>Persons at risk from identified hazards</i>	<i>X</i>	<i>Y</i>	<i>R</i>	<i>Existing controls measures implemented when carrying out task or using associated plant / tooling</i>	<i>X</i>	<i>Y</i>	<i>R</i>
Electricity	Electrocution, batteries overheating causing burns or fire within the workplace	All persons handling batteries or working within the vicinity	3	4	12	<ul style="list-style-type: none"> <li>Equipment to be Portable Appliance Tested (PAT) as per company schedule.</li> <li>Extension leads / multi adapters to be avoided in battery charging area.</li> <li>Equipment is to be used for its intended purpose only.</li> <li>Any defects / damage is to be reported to line management.</li> <li>Damage / defective charge to be taken out of service until defects rectified by a trained / competent person.</li> </ul>	2	4	8
Manual Handling	Musculoskeletal injuries or items being dropped	Persons handling batteries	3	3	9	<ul style="list-style-type: none"> <li>Staff to demonstrate correct manual handling techniques at all times when handling batteries.</li> <li>Staff must only lift within their own personal capacity and seek assistance if required.</li> <li>Steel toe capped safety footwear to be worn at all times when handling batteries.</li> </ul>	2	3	6