Risk Assessment – Abrasive Wheels

Company:	SES Engineering (Newark) Ltd	Date:	16.05.2022	Review Date:	16.05.2023	Ref:	SES/0035

Operation:	Use of Abrasive Wheels	Persons at risk:	Employees, 3rd parties

HAZARD	Assessment			CONTROL MEASURES TO REDUCE THE RISK	Re-assessment		
	S	L	R		S	L	R
Duration of Exposure.	3	4	12	Do not carry out tasks, which involve the use of vibrating tools and machinery for long periods. Take scheduled breaks from work. Job rotation will help and should be implemented if possible. A steady workload should be maintained throughout the course of work.	3	1	3
Wheel's bursting.	3	3	9	Only personnel who are trained are to mount abrasive wheels. Ensure the wheel selected is appropriate to its application. Do not allow wheels to wear down excessively, avoid grinding on the sides of wheels, and refrain from stopping wheels by applying press to them. All new wheels must be run free for a minute with all other personnel standing clear.	3	1	3
Electrocution.	4	3	12	All equipment must be fit for purpose and tested. Pre-use inspection should identify problems. After use, all equipment must be disconnected from their power source.	4	1	4
Contact with rotating abrasive wheel.	3	4	12	Ensure correct guarding is secured in place at all times. Rests for pedestal grinders are to be properly secured and adjusted so that they are as close as is practicable to the wheel. Before changing an abrasive wheel ensure the power source is isolated.	3	1	3
Damage to eyes.	3	4	12	Face shields must be worn at all times during abrasive wheel operations. Screens around the work area will prevent other personnel being affected.	3	1	3
Inhalation of dust.	3	3	9	Local exhaust ventilation and respiratory protection to be used.	3	1	3
Inhalation of fumes.	3	3	9	Local exhaust ventilation and respiratory protection to be used.	3	1	3
Excessive noise.	3	5	15	Ear protection must be worn during abrasive wheel operations.	3	1	3

Hand Arm Vibration. (HAVS)	**3**	**3**	**9**	Do not use abrasive wheel equipment for prolonged periods. Take regular breaks and ensure daily usage does not exceed manufacturer's recommendations and keep hands warm. Report any problems immediately.	**3**	**1**	**3**
Cold weather	**3**	**4**	**12**	Cold weather can increase the effects of vibration. Too prevent this it is important to keep hands warm. Gloves should always be worn to prevent cold increasing the effects of vibration. It is also important to wear warm clothes in cold weather as this significantly improves blood flow, therefore reducing the risk of vibration. The level of blood flow is significantly reduced in those who smoke; therefore, smokers should be aware of the need to take all extra steps to reduce the level of vibration and the effects it has on the body. See hand arm vibration exposure guides.	**3**	**1**	**3**
Fire.	**4**	**4**	**16**	Relevant fire extinguishers must be in the immediate vicinity. Clear the area of combustible materials before commencing work and check for signs of ignition when finished.	**4**	**1**	**4**

Likelihood →	**Likely**	**Probable**	**Possible**	**Unlikely**	**Very unlikely**
↓ Severity	(5)	(4)	(3)	(2)	(1)
Death (4)	20	16	12	8	4
Major Injury (3)	15	12	9	6	3
Minor Injury (2)	10	8	6	4	2
No Injury (1)	5	4	3	2	1

KEY: **S** = Severity

L= Likelihood

R= Risk rating

12-20 High risk
8-10 Medium risk
1-6 Low risk

PPE Required:

Hard hat	Y
High vis clothing & boots	Y
Eye/ ear protection	Y
Suitable gloves	As necessary
Respiratory equipment	Y
Safety harness	As necessary

Risk assessment to be reviewed every 12 months or following an accident / incident.