













Root & Branch	Risk Assessment In accordance the Management of Health and Safety Regulations 1999	Ref: RA 21 Date: 19 Aug 17
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	Task:	<i>Forge operation</i>		Location:	<i>Root & Branch</i>
	Name of Assessor	Jonathan de Wilton		Name of Reviewer	Mark Wild
	Job Title	Trustee and Forge Supervisor		Job Title	Trustee
	Signature	<i>Jonathan de Wilton</i>		Signature	
	Persons Potentially at Risk				
	Operator	Other service users	Staff / Volunteers	Public /Other Contractors	
	Y	Y	Y	Y	

Operative PPE requirements for this operation									
									
Safety Boots	Coveralls	Gloves	Eye Protection	Face Protection	Hearing Protection	Hi Viz Vest/ Clothing	Dust Mask	Wellington Boots	Hard Hats
Y	N	N	Y	N	N	N	N	N	N
Specific PPE comments or requirements Gloves should not be used for hammer hand, hearing protection should be used if extended heavy hammering is undertaken, dust mask when grinding, goggles rather than safety glasses when grinding, trousers should not be tucked into boots.									

Estimated Level of Risk (Based on Maximum Risk Identified)		
Low (1-4)	Medium (5-12)	High (13-25)
Yes	Yes, until properly trained	

Emergency Details			
Nearest A & E:	<i>Great Western Hospital Swindon</i>	Telephone No:	01793 604020
First Aid:	<i>First Aiders listed on board in lobby</i>	<i>First Aid Kit in Kitchen</i>	<i>Additional Kits in Forge and Wood Shop</i>

Likelihood - L	Rating Given	Severity of Outcome - S	Rating Given
Highly Unlikely	1	First Aid injury or minor property damage	1
Unlikely	2	Minor injury or property damage	2
Medium	3	Potential lost time injury or short term ill health	3
Likely, may occur regularly	4	Major illness or injury	4
Highly Likely, certain or almost certain to occur	5	Fatal or disabling injury or serious ill health	5

Apply a rating to both **likelihood** and **severity** and then multiply together to give actual risk rating of a particular hazard

Hazard	Risk	L	S	R	Control Measures	L	S	R	Further Action Required
Defective Equipment	Defective equipment presents a risk of injury	3	4	12	<p>Before use, carry out carry out visual inspection of equipment. If in doubt attach a defect tag to isolate from use (and if electrical remove fuse from plug).</p> <p>Record any defects in Forge Log, and record remedial action taken before bringing equipment back into service. Regularly service in accordance with manufacturers recommendations</p>	1	4	4	
Improper Use	Equipment used incorrectly can cause serious injury to operators and others	4	3	12	<p>Only trained operatives to use equipment, if you are unsure about this seek advice from Supervisor.</p> <p>Do not permit untrained persons to use equipment.</p> <p>Use equipment in full accordance with manufacturers recommendations as contained in the handbook</p>	1	3	3	Until operator can demonstrate competence, close supervision is required
Noise	Excessive noise exposure may contribute to noise induced hearing loss	4	4	16	<p>Report defective equipment and cease use immediately.</p> <p>Wear Ear protection with minimum SNR of 26</p>	1	4	4	
Manual Handling	Risk of injury from lifting equipment or materials (eg anvils, swage block, bandsaw, bags of coke).	2	3	6	Plan operations carefully, use lifting equipment, e.g. levers, jacks or hoists, as required. Delay moving heavy items until equipment is available. Ask for assistance if in doubt.	1	3	3	Forge supervising volunteers and service users should undertake training in safe lifting and manual handling.
Injuries to others/ service users, staff, volunteers, public	Others may not understand or recognise the risk of using equipment	2	4	8	<p>Inform visitors (using signs) not to enter forge while people are working and to wait behind the yellow line until the supervisor notices and acknowledges the visitor.</p> <p>Check visitor footwear is appropriate, and issue with safety glasses on entry to forge.</p> <p>Never leave equipment running when unattended.</p>	1	4	4	

Hazard	Risk	L	S	R	Control Measures	L	S	R	Further Action Required
Hot materials, tools and fire	Burns Coke spitting in fire, causing burns and eye injury. Hot sparks, metal fragments or coke falling in shoes	4	2	8	Explain danger of hot metal that is not glowing (i.e. after forging, or welding). Handle hot metal with tongs, or gloves. Quench in water, or leave to cool in safe inaccessible place. Explain fire management and how to feed coke into the fire safely. Wear PPE. Ensure stout footwear (no sandals), non-flammable trousers (not tucked into boots)	2	2	4	
Fire	Combustion of premises	2	4	8	Safe storage of flammable items, extinguish fires when not in use, ensure fire extinguishers are available, and smoke detectors are working. Check the working area at least 20 minutes after hearth fire has been left to go out.	1	4	4	
Grinding	Entrapment of fingers, injury to eyes, abrasions, inhalation of dust, flying debris or material	3	3	9	Set distance between grinding wheel and work rest no more than 3mm. Use goggles, dust mask, and protective screens. Ensure wheel is running true. Disks and wheels and belts only to be changed by supervisors.	1	3	3	Detailed risk assessment
Carbon Monoxide (CO)	Poisoning, headache, nausea, and worse	2	4	8	Install and maintain CO monitor. If alarm sounds, switch off air source (blower) to forge, open all ventilation and vacate forge. Undertake alternative activities until wind conditions change.				Extend chimney as problems have occurred under certain wind conditions
Faulty electrical installation and equipment	Electric shock, fire	2	4	8	Ensure electrical installations are inspected according to legal requirements, and visually every month (record in forge log). All portable equipment to be PAT tested every year. Cables routed away from sharp corners or risk of abrasion.	1	4	4	
Welding	Burns, eye damage, fire, UV skin damage	4	4	16	Close supervision by experienced supervisor. Welding curtains, welding helmets, long sleeves, gloves. Regular maintenance /servicing Correct handling of welding gases	1	4	4	Detailed risk assessment
Hazardous substances	Skin irritation, poisoning, inhalation	2	2	4	If fluxes or quenching oils are used only experienced supervisors may use them. Keep in secure lidded containers adequately labelled and consider COSHH store.	1	2	2	

Hazard	Risk	L	S	R	Control Measures	L	S	R	Further Action Required
Hand operated machinery	Cuts, abrasions, flying debris, falling materials and tools Strain and repetitive stress	3	3	9	Instruction provided in use of all hand tools, adequate supervision and intervention if misused. PPE. Use small hammers while learning and building up strength, change tasks regularly. Regular breaks	1	3	3	
Powered machinery	Cuts, abrasions, flying debris, falling materials and tools	3	4	12	Adequate supervision, by experienced supervisor. If in doubt use alternative method				Detailed risk assessment for grinders, linisher, welders, band-saw, air tools
Temperature	Overheating in summer	2	2	4	Ensure adequate ventilation. In hot weather find alternative activity. Regular breaks and drinks.	1	2	2	
Bahaviour, lack of skill or coordination of service user	Injury to self or others	2	4	8	Change activity within forge to simpler task eg use of hand tools rather than powered tools, cold working rather than hot. Switch off power and take a break.	1	2	2	Remember that the supervisor is authorised to, and in appropriate circumstances should, suspend activities.