



Gloucestershire Warwickshire Steam Railway Plc
Risk Assessment for Welding and other Hot Work - Global

Risk Assessment - Welding and other Hot Work

Reference No: GLO-44790-39

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Department: Global

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Welding and other Hot Work such as cutting and grinding

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S T | Additional Control Measures | L Overall | S T | Owner/Action |
|-------------------|---|--------------------|---|--|--------|--|--|--------|--------------|
| Health and Safety | Infrastructure damage and injury to user or those within work area Cuts, impact or fire caused by misuse | Volunteers & Staff | 1) Engineering: Barrier off work area or restrict access so that hot materials cannot impact others or equipment etc. - Effective 2) CRITICAL - Engineering: Screens should be used, secured and in place to stop others from being exposed to a risk of 'arc eye' injury or being struck by ejected particles. - Effective 3) CRITICAL - Engineering: All equipment should be inspected to check for damage before use. - Effective 4) CRITICAL - Engineering: Workpieces must be securely fixed or clamped before work starts - Effective 5) CRITICAL - Engineering: Position workpieces so that any splatter or emitted projectiles are projected away from the user wherever possible. - Effective 6) CRITICAL - Engineering: Gas and air regulators should be inspected and 'in-ticket'. - Effective 7) CRITICAL - Engineering: All mobile electrical equipment including welding sets should be PAT tested and 'in-ticket'. - Effective 8) CRITICAL - Engineering: Ensure that trailing gas hoses and electrical cables are not a trip hazard. - Effective 9) CRITICAL - Engineering: Be aware of the production of welding fumes and work in a well ventilated area. - Effective 10) CRITICAL - Engineering: Decontaminate all materials before work starts (grease, dirt, oils etc.) - Effective 11) CRITICAL - Engineering: Ensure that all power and speed settings are appropriate. - Effective 12) CRITICAL - Engineering: Ensure when using gas hoses that the correct connections are used. - Effective 13) CRITICAL - Engineering: Any cutting and welding equipment, especially gas bottles, should be stored securely and appropriately. - Effective 14) CRITICAL - Engineering: Gas bottles should only be used when stood vertically. - Effective 15) CRITICAL - Engineering: Ensure that gas bottles are stood securely and can not topple over. Consider using restraining chains etc. - Effective 16) CRITICAL - Engineering: Where work is above floor level, non-combustible curtains or sheets suspended beneath the work should be used to collect sparks - Effective 17) CRITICAL - Administrative: Users should be experienced and competent to use hot work equipment. - Effective 18) CRITICAL - Administrative: Ensure no flammables are within the work area - Effective 19) CRITICAL - Administrative: Fire extinguishers should be available 'on the job' close to the work area. - Effective 20) CRITICAL - Administrative: Lone Working is not allowed for Hot Work such as welding. - Effective 21) CRITICAL - Administrative: COSHH assessments should be completed for any COSHH gases that are to be used. - Effective 22) CRITICAL - Administrative: Minimise skin exposure, particularly wrists and lower arms - Effective CONTINUES ON NEXT PAGE | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | 1) Engineering: Consider using fume extraction systems - Effective 2) Engineering: Consider using cold jointing techniques to avoid hot work if possible and practical. - Effective 3) Engineering: Consider damping down the work area before and after the task is completed with water sprays or similar. - Effective 4) Engineering: Consider the use of flame blankets to reduce fire risk. - Effective 5) Engineering: Consider fitting smoke detectors and fire alarm facilities to areas where hot work is undertaken. - Effective 6) PPE: Consider wearing a safety apron to reduce impact of sparks - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | n/a |



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| | | | 23) CRITICAL - Administrative: Warn others in the work area in advance of the work starting. - Effective 24) CRITICAL - Administrative: Arrange the workplace so as to avoid clutter and hazards. - Effective 25) CRITICAL - Administrative: Maintain a good posture when working and avoid crouching over or becoming too close to the work piece. - Effective 26) CRITICAL - Administrative: Be aware of your own limitations. - Effective 27) CRITICAL - Administrative: Work should cease and a 'fire watcher' be in place for 30 mins afterwards in case any stray sparks or other hot materials cause a fire. - Effective 28) CRITICAL - Administrative: Maintain good housekeeping throughout the work area. - Effective 29) CRITICAL - PPE: Fire retardant overalls, gloves/gauntlets, safety footwear and eye protection should be worn - Effective 30) CRITICAL - PPE: A suitable welding facemask must be worn by the user. - Effective | | | | | | | | |

Score and Control Measure Notes.

Risk is medium if trained competent users follow the control measures.
Risk remains medium if extra control measures are followed

COSHH Assessments

There are no COSHH assessments associated with this risk assessment.

Reference Documents

- Hot Work Standard - Loss Prevention Assoc. and Insurance Ind. -

Ends



Appendix

Image not found.

Reference: UI-44490-370
Angle Grinder -