Risk Assessment - Task Risk Assessment : Cutting and Drilling of Rail

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Assessment Approver: Philip Moore

Part of the generic suite of risk assessments for 'standard' tasks undertaken by the P-way Dept : Using Rail Saws to cut rails and using Rail Drills to drill fishbolt holes.

Department: Permanent Way
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Lead Assessor: Paul Fuller (Track Maintenance Manager)
Team: Kev Jarvis (Process Assurance), Colin Charman (Safety Director), Graham Willis (HR Director), Andy Stratford (P-way Saturday Team Leader), Jim Graham (P-way Wednesday Team Leader), Pete Lightfoot (P-way Safety Rep)

Personal Injury

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Musculoskeletal injury Lifting and carrying of heavy tools and equipment	Volunteers & Staff	1) CRITICAL - Substitution: Ensure there are enough trained people so that the users can be rotated if necessary to reduce exposure time. - Effective 2) CRITICAL - Engineering: The distance the tools and materials need to be carried to the worksite should be minimised where possible. The pathway should be clear of obstructions and as flat as possible. - Effective 3) CRITICAL - Engineering: Good housekeeping - tools to be kept away from walking routes or working areas unless they are in use. This is to help prevent trip hazards. - Effective 4) CRITICAL - Engineering: Only volunteers who have been trained to use power tools should do so. Tool User Guides have been created as part of the 'Machinery User Guides' suite of documents and copies of the full manufacturer operator manuals for all tools are available for download via the P-way library on the Volunteer Portal. - Effective 5) CRITICAL - Engineering: Correct tools to be used for the process. Tools to be checked over prior to use. - Effective 6) CRITICAL - Administrative: Training leaflets as part of the 'How To...' and 'Machinery User Guide' suites of guides has been created and distributed to all P-way staff showing how to correctly set up and use the rail saw or rail drill. - Effective 7) CRITICAL - Administrative: All volunteers in the department to have watched the 'Manual Handling' training video on the Portal and completed the quiz questions. They are reminded to be careful in their approach to the carrying and careful use of the equipment and to pace themselves as necessary as so not to rush. - Effective 8) CRITICAL - Administrative: PTS rules apply at all times. - Effective 9) CRITICAL - PPE: Additional PPE to be worn : spark resistant trousers, ear defenders, gloves and eye protection must be worn by the user of the rail saw and any assistants. - Effective	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	None	n n n	n/a
Health and Safety	Minor Injuries Cuts, Bruises, Abrasions	Volunteers & Staff	1) CRITICAL - Administrative: The rail saw must not be used by a person working on their own, a second person ("assistant") should be present to help, assist and step-in if necessary. - Effective 2) CRITICAL - PPE: Rail ends are hot immediately after cutting and swarf from rail drilling is extremely sharp, handling these should be done with extreme care and caution. - Effective 3) CRITICAL - PPE: A first aid kit should always be available; these are located in all GWSR company vehicles. If any items are used from a first aid kit, the Track Maintenance Manager should be informed so that replacement items can be sourced. - Effective 4) PPE: A burns kit - including cooling gel or other medium - should also be available when using the rail saw. - Improvable	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	None	n n n	n/a

Gloucestershire Warwickshire Steam Railway Plc
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Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Working on a live railway Train operations	Volunteers & Staff	1) CRITICAL - Engineering: The cutting of rails on the running line is prohibited on operating days and can only be done when the line is under possession. - Effective 2) CRITICAL - Administrative: On operating days, an entry onto the Daily Ops Notices on the Sign-On system must be entered so train crew are aware of staff on and about the line. - Effective 3) CRITICAL - Administrative: PTS rules apply at all times. - Effective 4) CRITICAL - Administrative: A copy of the day's timetable is provided as part of the Daily Work Plan pack issued to the PIC. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a
Health and Safety	Noise and Vibration Use of power tools (i.e. rail saw and rail drill)	Volunteers & Staff	1) CRITICAL - Administrative: Training leaflet as part of the 'Machinery User Guides' suite of documents details the Noise and Vibration data for all of the power tools used by the P-way Department. All workers have been issued with, and signed for, copies of these documents. - Effective 2) CRITICAL - Administrative: Manufacture's user and operating guides available to all via the 'Documents' section on the Portal P-way library. - Effective 3) CRITICAL - Administrative: Only volunteers who have been trained and deemed as competent can use the power tools. - Effective 4) CRITICAL - Administrative: Volunteers not involved with the operation of the power tools should stand a safe distance away. - Effective 5) CRITICAL - PPE: Additional PPE to be worn : ear defenders, spark resistant trousers, gloves and eye protection. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a
Health and Safety	Sparks and Fire Using rail saw	Volunteers & Staff	1) CRITICAL - Administrative: Training leaflet as part of the 'Machinery User Guides' suite of documents details the risks of sparks and fire for all of the power tools used by the P-way Department. All workers have been issued with, and signed for, copies of these documents. - Effective 2) CRITICAL - Administrative: Only volunteers who have been trained and deemed as competent can use the power tools and the tools should be used properly. - Effective 3) CRITICAL - Administrative: Manufacture's user and operating guides available to all via the 'Documents' section on the Portal P-way library. - Effective 4) CRITICAL - Administrative: Volunteers not involved with the operation of the power tools should stand a safe distance away. - Effective 5) CRITICAL - Administrative: A suitable fire extinguisher, or other fire-fighting medium should be provided nearby when using the rail saw. - Effective 6) CRITICAL - Administrative: No one should use the rail saw whilst lone working, an assistant should always be present. This assistant should make sure the sparks do not cause a fire in the lineside environment. - Effective 7) CRITICAL - Administrative: If a lineside fire is caused, it should be extinguished if this can be done safely, else the fire brigade should be called via 999. - Effective 8) CRITICAL - PPE: Additional PPE to be worn : spark resistant trousers, ear defenders, gloves and eye protection must be worn by the user of the rail saw and any assistants. - Effective	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	None	n n n	n/a

Affect on Operations

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Operations	Train Operation Working between trains on a live railway	Volunteers & Staff	1) CRITICAL - Elimination: The cutting of rails on the running line is prohibited on operating days and can only be done when the line is under possession. - Effective 2) CRITICAL - Engineering: Line Blocks can be requested from the controlling Signalman if required. - Effective 3) CRITICAL - Administrative: PTS rules apply at all times - Effective 4) CRITICAL - Administrative: A Lookout must always be provided to warn the workers of approaching trains. - Effective 5) CRITICAL - Administrative: Notice to be posted on the Daily Notice page of the sign-on system prior to 00:01 of the day in question. Details must include the type of work being undertaken and the location of the works. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

Working in hot weather

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Lineside fires Sparks from rail saw lighting dry lineside vegetation	Everyone	1) Substitution: The cutting of rails during long periods of hot, dry weather should only be done in an emergency situation to prevent the risk of sparks lighting dry vegetation on the lineside. - Improvable 2) CRITICAL - Administrative: The use of the rail saw whilst lone working is not permitted. A second person ("assistant") should be present to help, watch and step-in if necessary. - Effective 3) CRITICAL - Administrative: If the lineside catches fire, an attempt to extinguish the flames should be undertaken if it is safe to do so. If not, the Fire Brigade should be called via 999 and the DOO informed immediately and directed to the nearest access point which should be unlocked and opened in anticipation of the arrival of the fire truck. - Effective 4) CRITICAL - Administrative: If a fire cannot be extinguished within 2 minutes of starting, the controlling Signalman should be called so that train services can be temporarily suspended. The DOO should also be notified ASAP. - Effective 5) CRITICAL - Administrative: Paragraph 2.7 of Section 1 of the Rule Book details what to do in the event of fire. - Effective 6) CRITICAL - PPE: A suitable fire extinguisher, or other fire-fighting medium should be provided nearby when using the rail saw. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

Environmental impact

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Environmental	Spillage of cutting fluid Cutting fluid used by rail drill - spill of contents	Volunteers & Staff	1) CRITICAL - Elimination: Ensure the caps are securely fastened to the container before lifting, pressurising or using. - Effective 2) Engineering: Cutting fluid container can hold 5 litres of fluid when full. If spilt, this will have minimal impact on local environment and water courses. - Effective 3) CRITICAL - Engineering: When re-filling the pressurised coolant container, ensure the pressure from inside the container has firstly been released then a funnel should be used when re-filling. - Effective 4) CRITICAL - PPE: PPE to be worn when handling cutting fluid - gloves (and eye protection if necessary) - Effective	2 x 1 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Lineside fire Sparks from rail saw lighting dry lineside vegetation	Everyone	1) CRITICAL - Administrative: See entry for "Working in hot weather" - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

COSHH Assessments

The following COSHH assessments are applicable to this risk assessment:

• COSHH-44207-38 - Rocol V-Cut SS Machining Fluid

Reference Documents

• Rail Saw User Guide -
• Rail Drill User Guide -

Ends