Risk Assessment - Natural Stressing of Continuous Welded Rail

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Assessment Approver: Paul Fuller

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Lead Assessor: Sean Devaney
Team: Kevin Jarvis

Natural Stressing of CWR

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Lifting, carrying and positioning of stressing equipment. Muscular injuries. Abrasion to hands. Foot injury.	Volunteers & Staff	1) CRITICAL - Engineering: Identify and specify most appropriate site access points to reduce requirement to lift. - Effective 2) CRITICAL - Engineering: Transport equipment to and from site using Link Trolley whenever possible. - Effective 3) CRITICAL - Administrative: Manual handling training/awareness for those involved. - Effective 4) CRITICAL - PPE: Wear approved PPE including gloves, steel toe capped footwear and hi-viz clothing. - Effective	2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Engineering: Long Bar (4) weighing 30Kg each – one-person lift & carry task. Short Bar (4) weighing 9Kg each – one-person lift & carry task. Plate (4) weighing 9Kg each – one-person lift and carry task close to the body. - Effective	2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a
Score and Control Measure Notes. Risk medium if control measures followed. Risk remains medium.							
Health and Safety	Safe System of Work - Injury caused by moving trains and/or plant equipment. Train movements OTM and OTP and other heavy plant within site footprint such as Dozer, excavator movements. Also manual handling underfoot conditions	Volunteers & Staff	1) CRITICAL - Engineering: Works shall be planned, supervised and carried out in a safe manner. - Effective 2) CRITICAL - Engineering: Exclusion zones established for all plant movements within site - Effective 3) CRITICAL - Administrative: Teams to be briefed and supplied with method statements for work processes. - Effective	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Health and Safety	Rail under tension when unclipping and cutting rail Major injury if struck by sudden movement of rail	Volunteers & Staff	1) CRITICAL - Engineering: Support on blocks, any rail that has not been installed. - Effective 2) CRITICAL - Engineering: Use of correct tools, equipment, rail clamp and positioning tool for rail type. - Effective 3) CRITICAL - Administrative: The method statement shall specify how rail cuts are to be made. - Effective 4) CRITICAL - Administrative: There must be by a method approved for the rail steel applicable on that site. - Effective	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Engineering: Unclip from pulling point to anchor point. - Effective 2) Engineering: First cut of stressed CWR must be by flame cut at pre-marked point before unclipping the rail. - Effective	2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a
Score and Control Measure Notes. Risk is medium if control measures followed and good engineering processes. Risk reduces from 8 to 6 with additional control measures. These must be followed.							
Health and Safety	Lifting rail to remove/insert pads and insert/remove rollers. Placing manually operated rail lifting equipment into position. Trapping injuries to hands and feet.	Volunteers & Staff	1) CRITICAL - Engineering: Do not apply shock load near the rail whilst elevated. - Effective 2) CRITICAL - Administrative: Nominate person to be responsible for coordinating all jack/trolley lifting and lowering activities. - Effective 3) CRITICAL - Administrative: Do not place hands or feet in trapping point between rail and sleeper. - Effective 4) CRITICAL - Administrative: A clear warning must be given before rail is to be lowered. - Effective 5) CRITICAL - PPE: Wear safety boots and gloves. - Effective	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Engineering: Rail to be supported securely by jack, mechanical rail lifting trolley, wooden blocks or rail lifter. - Effective 2) Engineering: Do not apply shock load near the rail whilst elevated. - Effective	2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a

Gloucestershire Warwickshire Steam Railway Plc
Risk Assessment for Natural Stressing of Continuous Welded Rail - Permanent Way

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Score and Control Measure Notes. Medium risk if control measures followed and team is well briefed and managed. Risk reduces from 8 to 6 with additional control measures. These must be followed.							
Health and Safety	Track left unsafe for passage of trains. Rails not stressed correctly. Major rail incident, derailment, and fatalities.	Everyone	1) CRITICAL - Administrative: Work to be directly supervised by a person in charge of stressing who holds a certificate of competence for stressing at the appropriate level for the task - Effective 2) CRITICAL - Administrative: Person in charge to complete and sign the relevant stressing certificate on completion of the work. - Effective	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Health and Safety	Materials and equipment left on the railway. Possible vandalism, derailment of train, fatalities. Slip, trips and falls.	Everyone	1) CRITICAL - Administrative: Person in charge to confirm that all rollers, tools and stressing equipment is removed from the railway or is secured against vandalism - Effective	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	1) Administrative: Final inspection to be carried out by handback engineer and details recorded. - Effective	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Score and Control Measure Notes. Low risk due to experience and competence of those involved. Risk remains low. Additional control measure must be carried out.							
Health and Safety	Fitness for work influence by drugs or alcohol fatigue Adverse effects of Drugs & Alcohol and/or fatigue. Operating incident involving operator, track staff.	Volunteers & Staff	1) CRITICAL - Administrative: Company Drugs & Alcohol Policy • For cause screening • Information & advice • Management of working hours • Booking on/off for duty - Effective	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 5 = 5 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Health and Safety	Access/Egress to site Slips, trips and falls.	Volunteers & Staff	1) CRITICAL - Engineering: Use of authorized walking routes that are well maintained. - Effective 2) CRITICAL - Administrative: Operator training assessment & experience (PTS training) - Effective	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a

COSHH Assessments

There are no COSHH assessments associated with this risk assessment.

Reference Documents

• Draft CWR Stressing RA - Original RA compiled by Track engineer Sean Devaney

Ends