Gloucestershire Warwickshire Steam Railway Plc
Risk Assessment for RRV Lifting Control System - Permanent Way

Risk Assessment - RRV Lifting Control System

Reference No: PER-45531-68
Version No: 1
Assessment Approver: Paul Fuller

The Road Rail Vehicle has a rated capacity indicator to manage vehicle stability and strength during lifting operations.
The electronic system relies on many sensors and an onboard computer to control lifting limits.
Should an element of the Rated Capacity Indicator (RCI) system fail then the RRV field operations may be compromised and result in significant knock-on issues and risks.

Department: Permanent Way
Date Of Assessment: 27 August 2024
Review Due Before: 29 August 2027
Lead Assessor: Andy Sworn
Team: Paul Fuller, Andy Stratford, David French

RRV RCI system failure

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	RRV instability and over turning Excessive load outside of operating envelope when RCI fault occurs	Volunteers, Staff & Contractors	1) CRITICAL - Elimination: RRV operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Elimination: RRV plant is checked daily and confirmed as fit for use by RRV operator prior to use. - Effective 3) Elimination: RRV load limit charts are available in the RRV cab for manual assessment in the event of RCI failure - Improvable 4) CRITICAL - Engineering: RRV tested and certified to LOLER regulations - Effective	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Elimination: Identification of a temporary robust lifting load limit that allows completion of standard operations. - Improvable	1 x 4 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Score and Control Measure Notes. Risk score based on major over turning risk causing injury to operator and/or ground personnel. Risk assessment based on a simple lifting check list being available that significantly reduces probability of an lifting overload.							
Operations	Impact on railway line operations due to incomplete maintenance work RRV lifting operations halted by RCI failure	Everyone	1) Elimination: RRV work briefing pack outlines activity plan and risks/mitigations associated with activity. - Improvable 2) CRITICAL - Elimination: PIC identified who is responsible for managing activity and any associated risk on running line operations. - Improvable 3) Administrative: RRV lifting charts are available in the cab of the vehicle to allow checking of lifting limits in order to finish any incomplete work. - Improvable	3 x 3 = 9 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Elimination: RRV operations are planned to be executable at low loads so that a simplified lifting limit can be used upon an RCI system issue. - Improvable	1 x 4 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a

RRV RCI system indicates incorrect limits

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	RRV overload or overturning instability RRV being used to lift a load that is outside of physical limits.	Volunteers, Staff & Contractors	1) CRITICAL - Elimination: RRV operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Elimination: RRV maintained in good condition and fully certified - Effective 3) CRITICAL - Elimination: RRV plant is checked daily and confirmed as fit for use by RRV operator prior to use. - Effective 4) Administrative: RRV lifting charts are available in the cab of the vehicle to allow checking of lifting limits in order to finish any incomplete work. - Improvable	1 x 4 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

COSHH Assessments

There are no COSHH assessments associated with this risk assessment.
Ends