



**Gloucestershire Warwickshire Steam Railway Plc**  
**Risk Assessment for 1675 - Safety Review - Carriage and Wagon**

**Risk Assessment - 1675 - Safety Review**

Reference No: CAR-45862-60

Version No: 1

Assessment Approver: Kevin Jarvis

The Management of Change assessment for the refurbishment of this vehicle identified that an RA was required to look at the H&S aspects of the project. A lot of the detail of the control measures is listed in the MoC but this RA compliments that.

Department: Carriage and Wagon

Date Of Assessment: 24 July 2025

Review Due Before: 24 July 2030

Lead Assessor: Kevin Jarvis

Team: Ian Stroud, Richard Budd, Richard Bates, Alan Nicholls, Neil Carr & Stuart Tyles.

**Operation of battery powered and fully refurbished RBR 1675**

Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S T	Additional Control Measures	L Overall	S T	Owner/Action	
Health and Safety	Project impact on physical properties and components of the existing carriage Project design error or misunderstanding	Everyone	1) CRITICAL - Engineering: Ride height adjusted for new weight distribution - Effective 2) CRITICAL - Engineering: suspension checked with tolerance - Effective 3) CRITICAL - Engineering: Crash pillars replaced - Effective 4) CRITICAL - Engineering: Door locks removed, replaced and checked - Effective 5) CRITICAL - Engineering: Generator set will require oil change every 100 hours - Effective 6) CRITICAL - Administrative: Maintenance Exams completed - Effective	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3	None	n	n	n	n/a
Health and Safety	Gas leaks Incorrect or poor installation of existing and new equipment	Everyone	1) CRITICAL - Engineering: Gas systems professionally fitted - Effective 2) CRITICAL - Engineering: All of the gas system, except the bottle changeover valve, is located outside of the vehicle - Effective 3) CRITICAL - Administrative: Annual inspection carried out in line with gas regulations - Effective 4) CRITICAL - Administrative: Bottle changing arrangements unchanged but should be less frequent - Effective	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3	None	n	n	n	n/a
Health and Safety	Battery fire, explosion or malfunction Wrong specification, poor installation, unsuitable equipment	Everyone	1) CRITICAL - Engineering: Batteries tested and conform to European Rail mounted lithium batteries standard - Effective 2) CRITICAL - Engineering: Charging carried out overnight in a very similar fashion to what happens now. - Effective 3) CRITICAL - Engineering: Batteries located outside of the carriage in a ventilated box with explosion mitigation - Effective 4) CRITICAL - Engineering: Battery enclosure is force ventilated and thermostatically controlled - Effective	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3	None	n	n	n	n/a
Health and Safety	Injury or incident caused by new kitchen equipment Poor specification, unsuitable equipment	Everyone	1) CRITICAL - Engineering: Professionally designed and installed equipment. - Effective 2) CRITICAL - Engineering: Restrained in position - Effective 3) CRITICAL - Engineering: Suitably labelled throughout - Effective 4) CRITICAL - Administrative: Training guides to be prepared for operating equipment and practice sessions held - Effective	1 x 2 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2	None	n	n	n	n/a
Health and Safety	Impacted Operations Lack of awareness, training or knowledge	Everyone	1) CRITICAL - Engineering: Fire extinguishers present - Effective 2) CRITICAL - Administrative: Guards and RCS staff to be suitably trained - Effective	1 x 2 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2	None	n	n	n	n/a



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Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S	T	Additional Control Measures	L Overall	S	T	Owner/Action
Health and Safety	Electrical issues Por specification, commissioning, design and function of new systems	Everyone	1) CRITICAL - Engineering: Systems diagrams, operating instructiog guides to be issued. - Effective 2) CRITICAL - Administrative: Bespoke electrical control system design, installed, commissioned by electrical professionals using standard industry components.. - Effective 3) CRITICAL - Administrative: System to be EICR tested by a competent contractor - Effective	2 x	2 =	4	None	n	n	n	n/a
				Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.							

COSHH Assessments

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