

Zonegreen

Let's Make Depots Safer Places to Work



Almost a quarter of rail-related workforce fatalities have occurred in depots in the last five years, according to the Rail Safety and Standards Board.

Its latest Annual Health and Safety Report concluded there is no clear picture of risk in depots and more needs to be done to provide safe working conditions.

Whilst there remains an absence of industry-wide directives, the onus falls on the operators of maintenance facilities to mitigate the unavoidable risks depot workers face, from high-speed vehicles, high-voltage electricity and powerful machinery that are part of their working environment.

The UK's largest rail franchise, Govia Thameslink Rail (GTR), has recognised the need to review and update the safety provisions at its depots and has been

undertaking a programme of improvements, with the help of leading industry expert, Zonegreen.

GTR contracted the Sheffield-based rail safety specialist to replace obsolete protection systems at a trio of facilities – Stewarts Lane in Battersea, Selhurst Inspection Shed and Brighton's Lovers Walk depot.

Trust in Technology

Zonegreen has installed the latest version of its acclaimed Depot Personnel Protection System (DPPS) at all three GTR facilities. It is the most advanced, thoroughly tested and proven technology on the market – a product of more than 20 years' research and experience.

DPPS protects staff by controlling vehicle movements within rail depots, creating safe zones for workers through the installation of powered derailleurs, operated

by RFID-controlled road end panels. Christian Fletcher, Zonegreen's Head of Engineering, is responsible for the conception and development of DPPS.

He said: "We have created a standardised product that uses the latest technology to mitigate the margin for human error, which is so often the root cause of accidents in depots. By using modern electronics to reduce cabling and electrical components, our latest system is more resilient and easier to install or expand, allowing for future upgrades."

Uniquely, DPPS remains the only depot protection system that has been independently tested and verified to be EMC-compliant (electromagnetic compatibility). The RFID panel has been assessed by Eurofins to meet European radio emissions and railway standards, ensuring its radio frequency range will not interfere with telecommunication or electrical devices.

Personal RFID cards are issued to workers, allowing them to log on to the road end panels and apply physical protection whilst they work in an area of risk. Only after the derailer has been lowered can a shunt signal be moved to 'proceed'. Audible and visual warnings are then activated to alert depot staff to imminent vehicle movement.

All workforce and train activities are recorded on Zonegreen's Depot Manager software, which offers a complete overview of the protection system and comprehensive traceability. It incorporates supervisory control and data acquisition (SCADA) software that displays the location of personnel and the status of plant and equipment, as well as enabling remote diagnostics. This ultimately makes DPPS easier to maintain and expands the lifetime of the product.

Protection for GTR

The first GTR depot to benefit from Zonegreen's latest technology was Stewarts Lane in Battersea. The historic facility maintains electric units from the Gatwick Express and has the added danger of a 750V third rail. DPPS was installed on 14 single-ended roads and interlocked with the traction power supply to prevent vehicle movements unless the third rail is live, thereby mitigating the risk of an isolated section being bridged.

Attention then turned to Brighton's Lovers Walk depot, which was one of the first facilities to invest in DPPS



Depot Equipment

in 2005. Today's incarnation was applied to 11 single-ended roads and original warning beacons and klaxons replaced with newer versions, boasting long-life LED technology. Finally, the protection system was added to seven roads in the inspection shed at Selhurst, where it has been interlocked with two cranes to prohibit train movements if they are in use.

Christian Fletcher concluded: "DPPS has come a long way since it was first installed at Lovers Walk 18 years ago. The latest version gives GTR far greater flexibility in how they develop operations at their depots and the reassurance that all possible measures are being taken to protect employees."

Meet Zonegreen at Railtex

Zonegreen will be showcasing its market-leading DPPS at Railtex this year, on stand M11 at NEC in Birmingham, 9–11 May. Throughout the event, the firm's Head of Engineering and global expert in depot protection, Christian Fletcher, will be delivering informative and educational workshops about the risks to staff in maintenance depots.

To register your interest in attending Zonegreen's Railtex workshops or for more information about its suite of safety systems call (0114) 230 0822 or visit www.zonegreen.co.uk.



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RAILTEX

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