

Track & Infrastructure

# Zonegreen

### Pointing Injury Prevention in the Right Direction



n the last three years, musculoskeletal and back problems have accounted for more than 40% of all self-certified sickness across the rail industry – that's almost seven million lost working days a year.

When you consider that period included a global pandemic, it's a pretty shocking statistic!

The RSSB has found sickness in our industry to be more than twice the national rate, yet there remains a lack of information about how it is being dealt with. If we could see where and how issues such as musculoskeletal injuries have been prevented, we could share best practice and make positive changes to reduce the prevalence and time lost through absenteeism.

### High-Risk Manual Points

Operating manual hand points is physically dangerous and poses a significant risk of damage to the back, neck or shoulders – some points can require as much as 103kg of force.

When you consider staff are often having to do this work in poor weather conditions, dimly lit environments, over uneven terrain and in many locations, beside the third rail, it's no wonder accidents occur.



One of the firms working to reduce the musculoskeletal risks to rail workers is depot safety specialist, Zonegreen. The Sheffield-based business has developed its Points Converter to automate traditional manual hand points.

Christian Fletcher, Zonegreen's Head of Engineering, said: "There is a vast difference between the conditions faced by workers in modern and older rail depots. The latter still rely heavily on the manual operation of points, whereas new facilities are integrating safer, more dependable solutions to remove the risk of human error and potential for accidents. Our Points Converters are a reliable way to prevent handling injuries, as the shunter no longer needs to switch the points manually."

Points Converters not only reduce the potential for slips, trips and falls, but also protect personnel from hazards when operating manual points, such as train movements and exposure to the live third rail.

By centralising operations through an intuitive remote handset or computer system, Points Converters increase efficiency, eliminating many stop/starts. Event logging facilities also allow the depot manager to keep a full record of activity at each point for hazard reporting and traceability purposes.

### SWR Prioritises Point Safety

Zonegreen has worked closely with South Western Railway (SWR) to install Points Converters at a number of its facilities.

The paint shed at the Bournemouth depot has been running the system since 2013 and received an upgrade last year, whilst Ryde on the Isle of Wight, Fratton and Southsea in Portsmouth and Wimbledon, London have all recently benefited from the installation of Zonegreen's technology.

Each installation has been tailored to the depot's needs. For example, in Fratton, a Points Converter was added to a switch on one of the entrance roads to the maintenance shed. As it was beyond the designated walking route and could only be accessed by navigating uneven ballast – often in the dark – Zonegreen added a key switch panel in the shunter's cabin from which it can be operated, removing staff exposure to the live third rail.



At Southsea, a Points Converter was installed on the HP01 point, to control vehicle movements in and out of siding roads. It is now operated remotely from a post-mounted key switch panel located on a walkway around 100m away, removing the need for staff to traverse uneven terrain, again alongside the third rail, to operate the point.

In all cases, the installations have been futureproofed allowing SWR to install further converters if the depots wish to automate other points and set routes.

Christian added: "Slips, trips and falls are far more prevalent in the rail sector than the cross-industry average and the single most common cause of major injuries in the UK. Manual hand points are a significant contributory factor to these types of incidents in depots and can result in absences from work of one to three months, costing employers and the economy millions of pounds. By installing Points Converters, operators can add power to hand points, without incurring the expense of a full signalling system."

For more information about Zonegreen's Points Converters, or its wide range of rail safety technology, telephone (0114) 230 0822 visit **www.zonegreen.co.uk** or follow the firm on **LinkedIn** 



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