



HRD Integrated Services technical training

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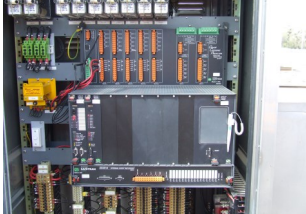
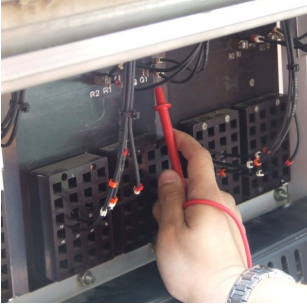
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HRD Integrated Services offers an industry-acknowledged preparatory program to electrical engineering graduates entering rail signalling.

This program is *the* definitive introductory course offering a detailed insight into rail signalling systems. Training is delivered by acknowledged experts in the field of rail signalling.

On completion, the graduate will have completed training and assessment aligned to level 1 of the Signal Assistant Designer SoC in accordance with MTM L4-LED-FOR-057 & Introduction to VRIOGs & MTM DPNs.

Brief info	Content		
<p>Course code: GSE</p> <p>Training delivered</p> <ul style="list-style-type: none"> 15 days total training <p>Venue</p> <ul style="list-style-type: none"> Rail Academy–Newport Includes selected site visits (RIW card required) <p>What to bring</p> <ul style="list-style-type: none"> Notebook/pen Hi-vis safety vest and boots Standard issue uniform <p>Scheduled dates</p> <ul style="list-style-type: none"> Contact HRD for the next training opportunity 	<p>Introduction</p> <p>Participants are introduced to the fundamentals of rail signalling, systems, including:</p> <ul style="list-style-type: none"> Train dynamics and signal system overview Signalling principles and equipment Control and wiring systems 	<p>Systems overview</p>  <p>A more detailed look at the signalling system.</p> <ul style="list-style-type: none"> Signal power supplies Jointed/jointless track circuits Signals, and train protection Point mechanisms Level crossing protection 	<ul style="list-style-type: none"> CBI Telemetry systems  <p>Testing and commissioning</p> <ul style="list-style-type: none"> Victorian practices Assisting the tester

Why choose HRD graduate training

Enrolling graduates at the time of employment gives them insight into rail signal systems and applications.

The GSE helps graduate engineers, project managers and project staff quickly develop an understanding of rail signalling.

Benefits

The GSE:

- covers essential operations of all Victorian signalling systems
- provides the underpinning knowledge needed to work effectively across the rail industry
- ensures graduates have signal systems knowledge prior to post-graduate rail study
- gives project managers and project assistants an insight into signal systems
- is led by highly experienced and technically qualified trainers.

Conditions

Enrolment

Learners enrolling in this course must be employed in a project capacity or as a graduate engineer. Access to signalling infrastructure is essential.

This is not an accredited course and does not qualify the participant to practise as a maintainer. A certificate of completion for HRD training modules completed is issued.

HRD–GSE

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Rail signalling training and assessment solutions

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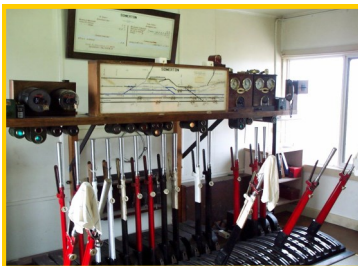
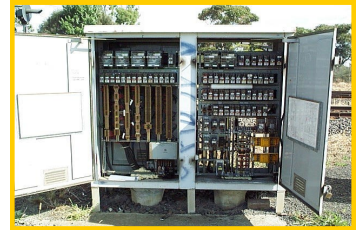
Support and continuation

The graduate rail signal engineer (GSE) provides the graduate with detailed information condensed into a short-term training timetable.

The Victorian rail signal system consists of signalling equipment dating back to the early 1900s, so the GSE program provides examples of systems designed and commissioned over past decades.

Training is supported by a seven month on-the-job rotation program. To maximize the effectiveness of training and ensure a well-rounded learner, graduates require ongoing support from mentors and participation in work placements that further develop skills and experience.

Graduates use systems knowledge learned from the GSE program, supported by self-directed learning, research and industry resources, to gain a comprehensive understanding of the rail signal infrastructure industry and the practice of rail signal design.



Learning resources

Up-to-date learning resources are issued to learners, one study folder per training module.

Learners are also provided with example system designs, access to manufacturer handbooks and industry standards, and a library of infrastructure resources.

Graduates are encouraged to share their current experiences with other learners.

Rail signal systems, controls and principles

Rail signal systems, controls and principles training is a comprehensive introduction to rail signalling over 15 days training.

Graduates are introduced to Victorian signal systems and principles in preparation for the system-specific modules. References are given to standards and specifications.

RS3.1 Rail signal system and principles (5 days)

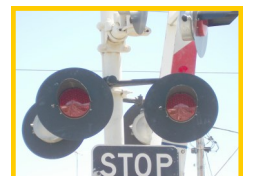
Included are the principles of Victorian signalling, 3 and 4 position signal systems, signal equipment, train protection, points, track circuits, interlocking, and telemetry systems.

The graduate is introduced to signal control principles, plan-reading and signalling circuits, aligned to MTM's requirements for 'Introduction to VRIOGs & MTM DPNs'.



RS3.2 Rail signal control system and principles (5 days)

This module covers control centres, computerisation, computer-based interlocking, remote monitoring, security gates, telemetry and level crossing controls.



RS3.3 Rail signal wiring systems (5 days)

Wiring systems includes the practice of wiring and cabling found in the signalling system.

Training also covers jointing and termination, and cable specification.

