



7¼ Inch Gauge Society Limited

Railway Environment Awareness Manual

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7¼" Gauge Society Limited

Proficiency Scheme

Candidate Guidance for Railway Environment Awareness

Introduction

This guidance is for candidates preparing for the Railway Environment Awareness module of the 7¼" Society Proficiency Scheme. It is written to be read before the assessment, alongside time spent on site, so that you arrive with a working understanding of the environment you will be operating in and what your assessor will be looking for.

The module looks beyond the trackside to the whole operating site – the running line, public and passenger areas, the car park, and the loco shed and workshop – because duty of care does not stop at the platform edge. The aim is awareness and good habits, not to turn every volunteer into a health and safety professional. Where guidance goes a little further than the day-to-day minimum, it is marked as Best Practice: useful to know and worth doing, but not something you will be failed on for lacking detailed knowledge of.

Throughout, remember that your own Society's or railway's rule book, local rules and risk assessments are the primary documents governing safe operation on your site. This guidance explains the general principles behind them; it does not replace them, and where the two differ, your local rules always take precedence.

Health and safety for passenger-carrying miniature railways in the UK is guided by HS2020: Managing health and safety at passenger-carrying miniature railways, produced by the Passenger Carrying Miniature Railway Safety Group (PCMRSG) and endorsed by the Health and Safety Executive (HSE). It applies to track gauges up to 350mm (13¾") that do not cross public highways. The Office of Rail and Road (ORR) only have involvement at public level crossings, which is covered in section 4.

1. General Site Awareness and Duty of Care

"Duty of care" simply means taking reasonable steps to avoid causing harm to yourself, to fellow volunteers and members, and to visitors and members of the public. On a miniature railway this applies everywhere you go on site – not only when driving or operating equipment. The Health and Safety at Work Act 1974 sets out the general duties behind this: employers (and by extension, clubs and Societies running an operation) must look after employees and volunteers so far as is reasonably practicable and must also protect members of the public from risks arising out of the railway's activities.

Before you start a duty, take a few minutes to be sure you know the site: where the accident/incident book is kept and how to make an entry, where the nearest first aid point and fire points are, how the site's emergency stop or "all stop" arrangements work if applicable, and where to muster in an evacuation. This is quick to do and means you are useful rather than a liability if something goes wrong.

Risk Assessments form a vital part of the railway's operational ability. These will cover activities including running operations, fire risk and hazards that have potential to cause harm or damage, and the applicable controls to be implemented. Familiarise yourself with these Risk Assessments before undertaking any tasks.

A hazard is anything with the potential to cause harm; a near miss is an event that could have caused harm but didn't; an incident is one that did. All three are worth reporting – near misses especially, because they are free lessons. If you find a hazard, make it safe if you reasonably can (for example, cordoning it off) and report it promptly; don't attempt repairs beyond your competence, and don't just leave it for someone else to find the hard way.

What to look for:

- The location of the accident book, first aid point and fire points for wherever you're working that day
- Anything obviously broken, worn, or out of place – fencing, staging, tools left trackside
- Specific Risk Assessments, if present you should familiarise yourself with them
- Safety signage relevant to your area, and what it's actually asking you to do
- The PPE appropriate to your task, and whether it's actually being worn nearby, not just available
- As a minimum, the use of steel or reinforced toe cap boots for those exposed to the working railway environment is recommended. Your railway/site may require a high visibility vest or top

PPE Best Practice

- Orange high-visibility clothing is the recognised convention on or near the running line – it's the same colour used across the mainline railway (RSSB standard RIS-3279-TOM) so that anyone on the track stands out clearly against the background. Many miniature railways adopt the same convention as good practice, even though the standard itself is written for the mainline. Follow your own railway's expectation on this.

2. The Trackside Environment

The trackside has its own hazards that are easy to become blind to once you're used to a site: uneven ground (slips, trips and falls), vegetation encroaching on the track, low structures such as bridges or tunnel mouths, and the cess (the ground alongside the rails) which is rarely as flat or firm as it looks. Weather changes the picture too – wet or greasy rail, autumn leaf-fall, and ice changes both underfoot conditions and rail adhesion.

Unless working "on track" (Pway works, vegetation, S&T etc) only cross the running line at a designated or authorised points. Stop, look both ways, listen, and don't cross if a movement is approaching or you're not certain the line is clear – miniature trains are quieter and less obviously "coming" than full-size stock, which can catch people out. If you see a member of the public or an animal on or near the line, the priority is to get movements stopped safely first, then deal with the person or animal; report the event once things are safe. If a train is approaching and sounds it's horn/whistle, raise one arm above your head to acknowledge the drivers warning.

What to look for:

- Where you are permitted to stand clear when a train passes, at any point along your working area (position of safety)
- Changes underfoot – wet leaves, ice, loose ballast, trip hazards from cables or equipment
- What each local speed, whistle or stop board is telling you, not just that it's there
- Whether the crossing point you're about to use is actually the designated one

3. Public Areas and Passenger Interaction

As an occupier of the site, the Society/railway owes a duty of care to visitors under occupiers' liability law – in plain terms, a duty to take reasonable care that visitors are reasonably safe using the premises for the purpose they're there for. This applies to everyone on site, not only fare-paying passengers: someone in the car park or a public viewing area is owed the same basic duty.

Boarding and alighting points carry their own hazards – gaps and edges, moving stock, restricted clearances close to platforms. Watch out for visitors who may need more time or assistance: children, wheelchair or mobility-scooter users, and elderly passengers in particular. During busy periods, safe queue and crowd management becomes part of the job – keeping people clear of moving stock while they wait is as important as running the service itself.

If a visitor is injured or involved in any incident, someone needs to take charge, the incident needs recording (usually in writing, including witness details where possible), and it needs reporting through the proper channel. You don't need to be the one in charge to be useful – knowing your own role in supporting whoever is, and not getting in the way, is often the more realistic skill.

What to look for:

- Platform gaps, edges and pinch points at your boarding/alighting locations
- Visitors who may need extra time or assistance boarding or alighting
- Visitors who seem unaware of the safe areas on the site
- Crowding or queuing too close to the platform edge or moving stock
- Where the nearest first aider and accident book are, from wherever the public are standing

4. Level Crossings, the Public Highway and the ORR

It's worth being clear on where the Office of Rail and Road (ORR) actually fits in, because it's a common source of confusion. The ORR is the safety and economic regulator for Great Britain's mainline railway, London Underground, trams, light rail, and heritage railways – in general, 7¼" gauge miniature railways sit outside its day-to-day regulatory reach, and are governed instead by the Society's/railway's own rules, general health and safety law, and (for public attractions) occupiers' liability.

The specific point where the ORR does become directly involved is wherever a miniature railway crosses a public road or public right of way. Such crossings fall under the Level Crossings Act 1983, for which the ORR is the enforcing authority, and any new or altered crossing may require a level crossing order. This is a narrow, specific overlap – not a sign that the ORR regulates the railway generally – but it's an important one to understand if your site has such a crossing.

In practice, treat a public road or footpath crossing with extra caution. Stop, check the crossing is genuinely clear, use whatever barriers or warning devices are provided, and only proceed when it's safe. Remember that members of the public using the crossing may have no experience of miniature trains and may misjudge speed or stopping distances – don't assume they'll get out of the way. If you find a crossing gate, barrier or warning device faulty or damaged, report it promptly and don't rely on it until it's checked. This advice also applies to private crossings, check your local instructions for crossing operation.

What to look for:

- Whether your route that day crosses any public road or footpath, and where
- Warning devices or barriers at the crossing – are they working, and is anyone relying on them?
- Members of the public approaching a crossing who may not have seen or heard an approaching train or seems unaware of the railway in general

Best Practice

- You don't need to memorise the Level Crossings Act 1983 in detail – the useful takeaway is simply: public road or path crossing = extra caution, and it's the one place the ORR has a direct legal interest in a miniature railway. Everything else on this list is day-to-day good sense.

5. Car Park and Site Access

The car park is often treated as a low-risk area simply because there's no train in it, but it mixes pedestrians, visitor vehicles, and sometimes trailers or towing operations, all in a space visitors are unfamiliar with. Look for how pedestrians and vehicles are kept apart on your site – marked routes, one-way systems, drop-off points – and if directing or marshalling a vehicle forms part of your role, do it from a position where you can't be trapped between two vehicles or between a vehicle and a fixed object.

Loading and unloading brings its own hazards – ramps, trailers, and disabled access all deserve a second look, especially when the car park is busy. As with the rest of the site, know the route to the nearest accident book and first aid point from the car park, and who to contact if something happens there – it's easy to assume incident response only covers the running line.

What to look for:

- How pedestrians and vehicles are separated in your car park, and whether visitors are actually following it
- Trailers, ramps or towing operations in progress nearby
- Visitors with mobility needs navigating from car park to site entrance
- Any barriers or cordoned off zones are sturdy and positioned as intended

6. The Loco Shed and Workshop Environment

The shed and workshop tend to concentrate more of the site's hazards in one place: moving machinery, lifting equipment, hand and power tools, fuels, oils, paints, cleaning chemicals, and batteries. Batteries on charge deserve particular respect – they can generate heat, give off gas (including hydrogen, which is flammable) while charging, and pose a short-circuit risk if handled carelessly. Know how charging is managed on your site and don't interfere with it if it's outside your role. Best practise for battery charging includes:

- Use only approved chargers and matching battery types from the original manufacturer.
- Surface choice: Place chargers and batteries on hard, clean, fireproof surfaces like concrete or steel.
- Electrical safety: Plug chargers directly into wall sockets rather than daisy-chaining extension leads.
- Check the area is well ventilated

The basic principle behind COSHH (Control of Substances Hazardous to Health) is simple even if the regulations aren't: hazardous substances like oils, paints, solvents and battery acid should be identified, stored, and used according to their safety data or label instructions, and you should know where that information is kept for the substances you handle. If a substance's Safety Data Sheet calls for specific PPE, ensure that you have access to, and are wearing it accordingly before handling the item. This could be as simple as nitrile gloves for handling paint.

For lifting and carrying – batteries and heavy components in particular – use good manual handling technique and ask for help rather than struggling on alone.

Good housekeeping is a safety measure, not just tidiness: clear gangways, tools stored correctly rather than left where they were last used, and spills cleaned up promptly. Know which fire extinguishers are in the shed, roughly what each type is for (and, just as importantly, what it isn't suitable for), and where the fire exits and muster point are.

Any lifting equipment should be visually checked prior to every use. Look for stress cracks or damage to critical components or frames. Ensure the lifting equipment is in good condition, and if applicable has the relevant lift inspection label present and in date. Lifting equipment should be fully checked (and tested if applicable) every 12 months, with lifting accessories checked (and tested if applicable) every 6 months.

Any powered tools or machines (including powered lifting equipment) should also be visually checked prior to each use. If the tool/machine is mains powered, ensure that the power chord is in good condition, with no damage to the cable insulation and no exposed cores. Mains powered equipment may be PAT tested and each plug shall have a PAT label applied. The PAT label should be checked to ensure the item is within its certified date. Battery tools/machines should be checked for good condition, no debris/fluids within the battery holder, and the battery itself not showing any signs of damage or overheating.

What to look for:

- Batteries on charge – are they being managed according to local instructions?
- Trip hazards, tools left out, or blocked gangways and exits
- Where safety data/label information is kept for the chemicals you're using
- Expiry dates for tools/machine/equipment that require checks
- The extinguisher types nearest to you, and the nearest fire exit
- Don't use tools/plant/machines you are not familiar with, or not trained to use

Best Practice

- You're not expected to be a COSHH assessor – knowing that hazardous substances have safety information, where to find it, and following it, is the level of understanding this module is looking for.
- LOLER and PUWER (Lifting Operations and Lifting Equipment Regulations 1998 and Provision and Use of Work Equipment Regulations 1998) are in-depth regulations. Being aware of them from a day-to-day use perspective and reporting any issues is very helpful to ensure the railway maintains its compliance.

7. Contractors, Construction Work and CDM Awareness

From time to time, you may find construction-type work happening on site – new buildings or platform works or carpark works being undertaken by other parties. Larger work of this kind can fall under the Construction (Design and Management) Regulations 2015 (CDM 2015), which set out duties for clients, designers and contractors on construction projects. This is genuinely a Best Practice / background-knowledge section for most candidates: you are not expected to hold any of these roles yourself, only to recognise that such duties exist for bigger works and to know how to behave safely around them.

In practice, this means recognising when construction or engineering work is under way – signage, barriers, exclusion zones – and respecting it: keep clear, don't enter marked exclusion areas out of curiosity or a shortcut, and follow any temporary instructions given. If you see unsafe practice by a contractor, or a hazard left unmarked or unguarded, report it rather than assuming someone else has noticed.

What to look for:

- Barriers, signage or exclusion zones you haven't seen before
- Temporary changes to your usual route caused by construction work
- Anything left unguarded that looks like it should have been made safe

Best Practice

This whole section is background awareness, not a working knowledge of CDM.

- The rough shape to remember: someone commissions the work (client, often the railway or society), someone designs it, someone carries out the construction (contractor) – and on a bigger job there are legal duties tying those roles together. As a candidate, your job is simply to notice the work is happening and stay out of its way unless you're part of it and have received appropriate briefings, training and/or instruction

8. Wider Regulatory and Standards Framework

It helps to have a rough map of where the rules governing a running day actually come from, even without legal detail. The Health and Safety at Work etc. Act 1974 sets the general duty to look after yourself and others. Occupiers' liability law sets the duty owed to visitors, covered in Section 3. The Level Crossings Act 1983 brings in the ORR specifically at public road/path crossings, covered in Section 4.

Beyond legislation, the rail industry has its own good-practice standards – the Rail Safety and Standards Board (RSSB) publishes Railway Group Standards and Rail Industry Standards (RIS) such as RIS-3279-TOM on high-visibility clothing, mentioned in Section 1. Almost all of these are written for the mainline railway and are not mandatory for a 7¼" gauge miniature railway, but many are a useful, well-tested source of good practice where a site chooses to adopt them.

None of this replaces your own Society's rule book or your host railway's local rules and risk assessments. Those documents are written for your specific site, are the ones you'll actually be using and expected to follow day-to-day, and always take precedence if anything in this guidance seems to differ from them.

What to look for:

- Where your site's own rule book and risk assessments are kept, and that you've actually read the ones relevant to you
- Any local variation from what's described generally in this guidance – local rules win

A Final Note

This guidance is deliberately proportionate – an attraction railway run largely by volunteers doesn't need construction-site levels of paperwork or process to be genuinely safe. What it needs is people who notice their surroundings, understand why the precautions exist, and know who to ask or where to look when something isn't obvious. That's what your assessor will be looking for, and it's a habit worth keeping long after the assessment itself.