

Level crossings

3. Risk management expectations

Level crossings remain one of the greatest risks to public and passenger safety on the rail network. They are locations where members of the public interact directly with the railway, and failures in design, management or operation can result in serious injury or fatality. While Britain's mainline railway performs well by international comparison, this position could change with a single major incident, and every incident carries the potential for significant human and economic loss.

Why does effective risk management matter?



- ✓ Level crossings expose the public directly to railway risk
- ✓ Failures can result in serious injury or fatality
- ✓ The law requires risks to be reduced so far as is reasonably practicable
- ✓ Effective management depends on continual review and assurance

The legal and regulatory basis

Network Rail, operators of heritage and light railways and those who control rail depots, have an explicit legal duty under the Health and Safety at Work etc. Act 1974 (HSWA) to minimise risks arising on their networks, so far as is reasonably practicable.

The law requires railway dutyholders to manage level crossing risk effectively through their own safety management systems. ORR's role is to provide assurance that this is being done and, where necessary, to promote and enforce the safe design, management and operation of level crossings in order to reduce the likelihood of people being harmed and the number of 'close calls'.

ORR supports dutyholders through its guidance, Principles for managing level crossing safety, which is intended to aid the design and management of crossings and to support consistent, risk-based decision-making across the industry. Risk assessments should be undertaken by competent people with a proper knowledge of level crossing risks, control measures, and the behaviour and risk perception of users.

We support the closure of level crossings, and this should be the first option considered in a risk-control strategy by the dutyholder, in line with the principles of prevention set out in the Management of Health and Safety at Work Regulations 1999. The closure of level crossings requires attention to many factors, including:

- the practicalities of replacing them with bridges or underpasses;
- the legal arrangements for closing rights of way;
- the need to minimise the possible transfer of risk to other crossings; and
- the possibility of importing new dangers, such as increasing the likelihood of trespass.

We recognise the need to balance the risk of alternative routes against the safety benefits to the railway of closing crossings, and that others are best placed to make these judgments.

Ongoing risk management

Ongoing management of risk must be demonstrated throughout the lifecycle of the crossing and whenever circumstances change. This includes:

- the design, management and operation of existing level crossings;
- regular reassessment of risk by the crossing operator;
- situations where traffic levels, user profiles or train services change;
- local developments such as new housing, schools or land use changes; and
- after incidents, near misses or evidence of unsafe user behaviour.

Risk reassessment should also revisit whether closure of the crossing, or replacement with an alternative means of crossing the railway, is now justified. Where closure is not reasonably practicable, options for improved protection and additional controls must be considered, particularly as technological developments increase the range of available solutions.

ORR's expectations of dutyholders

Dutyholders are expected to manage level crossing risks in a structured and proportionate way, working in cooperation with other parties such as train operators, local authorities and highway agencies. They should ensure that:

- level crossing risks are identified and assessed;
- assessments are undertaken and reviewed by competent persons;
- reasonably practicable control measures are identified and implemented;
- closure or alternatives are considered first, in line with the principles of prevention; and
- the layout of the crossing and equipment, such as gates, barriers, warning lights, alarms, and signs are kept under review to reflect changing risk profiles.

ORR does not approve or grant permission for new or reinstated level crossings. Where proposals arise, ORR may submit an opinion as part of the Transport and Works Act or Transport and Works (Scotland) Act processes and will encourage early engagement so that reasonably practicable alternatives are fully explored. In principle, ORR does not support the creation of new level crossings where alternatives exist, as they introduce new risks to the railway and its users.

ORR also makes Level Crossing Orders on behalf of the Secretary of State for Transport, usually for public vehicular road crossings, and inspects crossings to ensure that the measures set out in those Orders are implemented and complied with. Refer to the Level Crossing Orders guidance here: [Level Crossing Order Process](#).

Core compliance expectation



Level crossing risks must be actively managed, regularly reassessed and demonstrably controlled in practice, not only documented.

ORR has established key regulatory activities and intended outcomes described in more detail in the Appendix.

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