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PRIVATE LEVEL CROSSINGS ON FARMS AND PRIVATE LAND			
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Summary			
<p>This RIG updates guidance and information previously in Health & Safety Executive (HSE) OC380/2 'Railway Level Crossings on Farms' and is intended to ensure continued common understanding of issues and facilitate joint working between ORR and HSE inspectors.</p> <p>ORR publishes guidance for private level crossing users at http://www.rail-reg.gov.uk/upload/pdf/user_worked_railway_level_crossings.pdf and http://www.rail-reg.gov.uk/upload/pdf/using_farm_level_crossings.pdf</p> <p>HSE has replaced OC380/2 with OC380/5 for its staff such that it now cross references information in this RIG, as well as providing instructions to inspectors responsible for enforcing health and safety issues at farms.</p> <p>Paragraphs A74 to A78 of the Memorandum of Understanding (MoU) between ORR and HSE are also relevant.</p> <p>This RIG should be read in conjunction with RIG - 2011 – 03 which gives further important guidance to Inspectors on enforcement of minimum standards of provisions and methods of work at user worked crossings.</p>			
Consultation			
<p>Original consultees - Level Crossing Working Group, Sally Williams, Craig Richman, Tony Mitchell (HSE Ag Sector)</p> <p>2012 Review consultees:</p> <p>Level Crossings Co-ordination Group – John Gillespie, Tracy Phillips, Don Wilson, Ian Maxwell</p> <p>Heritage Railways Team – Ian Raxton</p> <p>Route Teams – David Whitmarsh, Chris Collett</p> <p>Legal Support – William Keag</p> <p>HSE - Alastair Mitchell</p>			

Detail**Background**

1. In January 2018, there were 2,239 user worked crossings on Britain's mainline railway infrastructure¹. UWCs accounted for 2 of 6 deaths at level crossings on the national infrastructure in 2016-17¹. There was a serious collision causing passenger and train crew injuries at a UWC near Sudbury in Suffolk on 17th August 2010.
2. Private crossings were installed by the railway when it was built, for the benefit of farmers and other individuals whose land or access to dwellings was divided by the railway. They are also known as 'occupation' or 'accommodation' level crossings and are typically vehicular crossings. Private crossings are generally 'passive' and all are 'unprotected', that is, they do not have any provision for checking that the crossing deck is clear before allowing a train to enter. The gates or barriers are generally opened and closed manually by the user. The use of many private crossings, particularly on farms, is often in connection with the business of an undertaking.
3. Private, user-worked level crossings account for many incidents on the railway each year, and create a significant accident risk. Three casual farm workers died in 2003 at Pools level crossing, Worcestershire when the minibus they were travelling in was struck by a train at such a crossing. The British Transport Police (BTP) charged the driver of the vehicle with manslaughter because he failed to use the level crossing correctly. Human error is a contributory factor in most level crossing incidents and in the case of vehicle driver error has the potential to cause a multi-fatality incident through derailment of a train.
4. Allocation of enforcement responsibility to the relevant enforcing authority is covered in paragraphs A74 to A78 of the Memorandum of Understanding between HSE and ORR. Although health and safety issues at farms lie within the enforcing authority of HSE, ORR inspectors have the necessary HSWA powers to pursue level crossing issues with non-railway duty holders.

Safeguards

5. Use of private crossings is restricted to 'authorised users' although other people such as farm workers or delivery drivers may use the crossing with the permission of the authorised user. Where there are a limited number of authorised users, the level crossing gates may be locked by the infrastructure manager and users provided with a key. Alternatively, users may provide their own locks.

6. The infrastructure manager, usually Network Rail, is required to provide instructions for the safe use of level crossings for authorised users. This may include people such as farmers and landowners who have private level crossings on their property, as well as their guests and visitors and other users such as housing tenants, utilities, the environment agency and other organisations with general rights of access

7. The authorised user has responsibility for ensuring that the crossing is used safely by all users, and in accordance with instructions provided by the infrastructure manager. The infrastructure manager has a corresponding duty to ensure that the instructions provided and the means of using the crossing are adequate and suitable to ensure the safety of trains and crossing users. This may include employees, contractors, postal staff, drivers of delivery vehicles and visitors. The safety of those who use private level crossings on farms and other business premises in the course of their work, should be included in their employer's risk assessments. Arrangements should be put in place for ensuring that crossings are used safely and in accordance with the infrastructure manager's instructions.

8. Level crossings giving access to fields can lie unused for much of the year but during the summer months and harvest time in particular, may need to be used intensively, sometimes by casual labourers who may be unfamiliar with the crossing. They may also not have English as a first language with the result that the instructions for the safe use of the crossing may not be understood and followed. The authorised user is responsible for ensuring that everyone who uses the crossing has been properly instructed in how to do this safely.

9. When a significant increase in use is planned, the authorised user should contact the infrastructure manager and request a joint risk assessment take place to ensure that a safe method of using the crossing is agreed and adopted. Particular attention should be given to the robustness of any agreed method of work between the two parties for periods of intensive use. See the Buttington Hall RAIB investigation – this resulted in guidance to Level Crossing Managers on how intensive use may be managed.

10. A number of serious incidents (Abbey Farm, Sewage Works Lane Sudbury, Whitehouse Farm) have highlighted a weakness in the accuracy of the information that the signaller could provide about the whereabouts of the train in relation to Telephone User Worked

crossings (UWC(T)s). It is an important part of the infrastructure manager's risk assessment of Telephone User Worked Crossings that the signaller is able to locate the train with sufficient accuracy to prevent long waiting times. Such locations should be prioritised for the fitment of overlay active warning systems provided at the crossing (miniature stop lights).

11. Many farmers have diversified and have changed the use of their land and facilities. Such changes could affect the number and type of vehicles using level crossings and increase the risks. Examples of changes include the development of farm buildings as holiday accommodation, inviting members of the public onto farmland for recreational activities, development of caravan parks or the introduction of pick-your-own enterprises. Changes in level crossing use may need to be agreed between the authorised user and infrastructure manager. The authorised user may be required to pay for any improved protection required. This is likely to be a contractual matter and not an issue for ORR or HSE to resolve. The authorised user will retain responsibility for ensuring the safe use of the crossing in accordance with the safe method provided by the infrastructure manager

12. A variety of control measures are employed by the infrastructure manager to protect users, including providing the minimum safe distance to see an approaching train, providing a telephone to contact railway staff to seek permission to cross and provision of warning lights for users. Provisions for pedestrians at a telephone user worked crossing without a public right of way may not be adequate and there are some crossings where pedestrians may need to use the telephone. For minor railways the risks posed by their particular operations will require specific assessment and the railways should put in place suitable level crossing arrangements to reflect their specific circumstances. It is desirable that the appearance of signs, gates, barriers etc. are consistent with those used on mainline railways to reduce the potential for causing user confusion. Minor railways may also be able to rely on more specific guidance from the Heritage Railway Association.

ORR Interventions at private crossings

13. ORR work includes investigation of incidents, proactive inspections, educating users, raising awareness, and working through third parties. Inspection work at private crossings has found a number of common problems, although recently there has been evidence of

improvements in maintenance standards at crossings on the main line network. Typical problems/defects can include:

- The signaller is unable to provide accurate information to the user about the train's location in relation to the crossing. a consequence of this may be that the user is subject to excessive waiting times before the signaller indicates that the user can cross leading to a risk that the telephone will not be used;
- unreliable crossing equipment (telephones, warning lights, gates, means to secure gates including toe catches, and signs) due to poor maintenance, vandalism or general deterioration;
- poor, worn or damaged crossing surfaces or cattle guards that cause difficulty in moving vehicles or livestock across the tracks;
- profiles that increase the likelihood of 'grounding' when vehicles pass over the crossing, or of overhanging loads/tall vehicles coming into contact with overhead lines;
- restricted sighting of approaching trains caused by lineside development, erection of fences, or growth of vegetation. At a user worked crossing without additional protection measures, there should be a minimum sighting time of 20 seconds, and this should be at least 5 seconds longer than the time required to cross.

Action

- 14.** Inspectors carrying out work at private level crossings on farm and other business premises should consider the potential interest of other enforcing authorities. Inspectors need to read the MoU http://orr.gov.uk/data/assets/pdf_file/0006/1698/mou-between-hse-and-orr.pdf and RGD 2011 – 03., and be aware of HSE guidance.
- 15.** Where the work is likely to directly involve user issues at specific locations, rather than focus on crossing type or standards, ORR inspectors should contact the local HSE inspector responsible for the premises on which the crossing is located. They should be advised of ORR's work and asked whether there is any ongoing HSE action or particular issues of which the ORR inspector needs to be aware.
- 16.** Inspectors should remind authorised users of their responsibilities to people they allow to use the crossing. If there has been a change in use of the crossing (even if this is only for short periods such as harvesting, fruit picking etc.) the farmer should be advised to discuss this with the infrastructure manager in advance. Leaflets are available on ORR's website to assist.
- 17.** Crossing users should be advised to report any problems with the level crossing to the relevant infrastructure manager. Authorised users are normally provided with a contact telephone number, and this may be on a sign at the level crossing.
- 18.** When investigating incidents of user error at specific locations, the crossing should be inspected to ensure that it meets minimum standards with no significant defects likely to increase such errors – for example long waiting times or being unable to contact the signaller where required.

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General information

Provisions at private crossings

1. **Gates and surfaces:** Most private crossings have single gates that open away from the railway. Gates are normally closed across the roadway. The infrastructure manager must provide a crossing surface and adequate approaches, suitable for the location and use. Separate wicket-gates or stiles can be provided if there is a public footpath or bridleway at the same point. Vehicular gates may be locked to prevent unauthorised use.
2. **Phones and Warning Lights:** Around two thirds of private crossings have telephones for users to contact signallers. Users can be advised whether it is safe to cross. Some of these telephones may not be answered out of hours and alternative means of contacting the infrastructure manager may be required as non- timetabled trains may still be running e.g. for maintenance. Some private vehicular crossings have miniature warning lights.
3. **Instructions:** These should be posted by the infrastructure manager near every access point to the crossing, on a statutory sign.

Users should cross only when safe to do so. Where telephones are provided users must follow the instructions displayed. Where red/green light signals are provided the user should only start to cross when the green light is illuminated and check the lights every time they cross (for example to open and close gates on foot). Users should never rely on the timetable, signals on the railway or on the position of gates or barriers to indicate when a train is approaching. At a crossing with neither telephone nor lights a vehicle user relies upon sufficient sighting in either direction from the actual vehicle driving position. If there is any doubt a banksman may be needed or contact must be made with the infrastructure manager to seek permission to cross. Having said this, a permanent solution to inadequate sighting from the vehicle must be achieved.

4. **Crossing with vehicles or livestock:** The correct procedure is detailed in the instructions provided at each crossing; users must by law follow the instructions whenever the crossing is used. Vehicles should never be stopped/left on the crossing because of the risk of collision. A typical operating sequence will be:
 - Telephone the signaller and request permission to cross, explaining what is to be taken over the crossing and how long it will take. Obey the instructions given by the signaller and any indications on warning lights.
 - Open the gates on both sides of the railway before driving over the crossing.
 - Drive the vehicle or livestock across the crossing and through the far gate.
 - Return immediately to the crossing and close all gates (checking each time that it is safe to cross), even if the crossing is to be reused shortly after.
 - If required, telephone the signaller again to confirm you have crossed.

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- If crossing a sighting only crossing with a herd or flock ORR's advice is to pre plan this operation and to contact the infrastructure manager in advance to plan a safe means of crossing; the signs will not cover this activity
 - Crossing a sighting only crossing will require a vehicle driver to cross four times on foot in order to open and shut the gates in addition to driving the vehicle over. Drivers will need to take care to look and listen every time they cross on foot as well. It should always be assumed that a train may be approaching. At a miniature warning light crossing the user must check that a green light still shows each time they cross.
5. Users should tell Network Rail if seasonal activities, for example harvesting, temporarily increase the use of a crossing. This is because temporary additional safety measures may be needed.

ELECTRIFIED RAILWAYS

6. There are extra risks on electrified railways. Both overhead equipment and conductor rails can kill without being touched.
7. Overhead wires are usually energised at 25,000 volts AC. No part of any vehicle (including loads, aerials, etc) should come within 600 mm (approx 24 inches) of the wire. The clearance between a wire and the track may be as little as 4.7m, or less. If there is any doubt about the height of the wire above the track, Network Rail's local Level Crossing Manager should be contacted. Additional precautions may be needed where loads may come closer to the wire due to a humped road profile over the crossing.
8. Conductor rails, mounted beside or between the tracks are usually energised at 750 volts DC. There may be one or two conductor rails. The conductor rails will stop short of the crossing with their ends protected by boards or a series of wooden rails (designed to prevent access onto the track) placed between them and the crossing. If any animal strays onto the track users should contact the infrastructure manager immediately so that trains can be warned and the power turned off. Fatalities have occurred where users have tried to retrieve animals from the railway; this should never be attempted.

REPORTING OF DEFECTS

9. Users should report any deficiencies or problems in using the crossing to the infrastructure manager. If contact details are not displayed at the crossing they should contact - Network Rail's national helpline 03457 11 41 41 (for crossings on the main railway network).

FURTHER ADVICE

10. Further advice and technical assistance may be sought from Network Rail (or the relevant infrastructure manager) and useful general level crossing information is available at www.networkrail.co.uk.