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	NETWORK RAIL - SIGNAL ENGINEERING Alignment of Level Crossing Road Traffic Light Signals (Wig Wags)
Relevant Standards: NR/L2/SIG/19608, NR/L3/SIG/10663, NR/L2/SIG/10075 and NR/L3/SIG/11231	

Purpose

This Technical Instruction provides information to clarify the requirements for the alignment of level crossing Road Traffic Light Signals (RTLSSs), commonly known as Wig Wags.

Background

A recent fatality at a level crossing resulted in an improvement notice being issued by ORR. The notice identified that the wig wags were not optimally aligned and required Network Rail to improve the visibility.

The alignment of wig wags at level crossings is covered in several documents, carried out at different times by various staff.

A review has been carried out to confirm the correct alignment of the wig wags so that the best sighting can be provided to the road users.

At present the alignment of the wig wags also requires to be observed from the middle of the road. This has been reviewed to allow a safer practice to be used.

These changes will mean that the alignment will be regularly checked by the Level Crossing Inspector who carry out inspections using NR/L2/SIG/19608. The signalling technicians will only have to check the alignment after repairs to or replacement of a wig wag and as part of SMS/LC11 Service B or SMTH/Part 4/LD08.

Scope

This Technical Instruction covers the requirements for the alignment of the level crossing wig wags, including responsibility.

Standards affected by this TI:

- NR/L2/SIG/19608 - Level Crossing Infrastructure (Inspection & Maintenance) Handbook
- NR/L3/SIG/10663 - Signal Maintenance Specifications
- NR/L2/SIG/10075 - Production of Level Crossing Ground Plans
- NR/L3/SIG/11231 - Signal Maintenance Testing Handbook

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PUBLISHED UNDER NR/L2/SIG/11120

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Changes to Standards

NR/L2/SIG/19608 - Level Crossing Infrastructure (Inspection & Maintenance) Handbook

Inspection checklist LXi02 item 4 will now be:

“Check that the nearside Road Traffic Light Signal (wig wag) is unobstructed and aligned approximately 1.5m above the near side edge of the road way or footpath / pavement at 100m on the approach to the crossing stop line (should be done whilst lamps flashing). If a different alignment is specified on the Ground Plan, then *check* for alignment in accordance with the Ground Plan. Where alignment to 100m is not possible (e.g. due to road approach curvature within 100m or the local layout) then the alignment should be to a point 1.5m above ground level on the edge of the footpath at the point where a vehicle driver can first sight the road traffic light (wig wag), in order to give the motorist the earliest possible view of the flashing lights.”

“During inspection if the alignment is found to be incorrect then this shall be reported using a WAIF (work arising initiation form) for action by the S&T Maintenance Engineers staff. It shall be recorded in Ellipse to track the completion and for future audit purposes.”

Inspection checklist LXi02 item 5 will now be:

“Check that the offside Road Traffic Light Signal (wig wag) is unobstructed and aligned approximately 1.5m above the near side edge of the road way or footpath / pavement at 50m on the approach to the crossing stop line, or as specified on the Ground Plan or schematic diagram. If a different alignment is specified on the Ground Plan, then check for alignment in accordance with the Ground Plan. Where alignment to 50m is not possible (e.g. due to road approach curvature within 50m or the local layout) then the alignment should be to a point 1.5m above ground level on the edge of the footpath at the point where a vehicle driver can first sight the road traffic light (wig wag), in order to give the motorist the earliest possible view of the flashing lights.”

“During inspection if the alignment is found to be incorrect then this shall be reported using a WAIF (work arising initiation form) for action by the S&T Maintenance Engineers staff. It shall be recorded in Ellipse to track the completion and for future audit purposes.”

NR/L3/SIG/10663 - Signal Maintenance Specifications

SMS/LC11 Service A clause 7.2 to be deleted.

SMS/LC11 Appendix A should be changed to :

“The primary Road Traffic Light Signal (wig wag) assembly (near side) should normally be aligned to a point 1.5 metres above the near side edge of the road way or footpath / pavement at 100 metres on the approach side of the stop line and the duplicate primary Road Traffic Light Signal (wig wag) assembly (off side) should normally be aligned to a point 1.5 metres above the near side edge of the road way or footpath / pavement at 50 metres on the approach side of the stop line or as specified on the Ground Plan or schematic diagram. If a different alignment is specified on the Ground Plan, then arrange for alignment in accordance with the Ground Plan. Where alignment to 100m (50m) is not possible (e.g. due to road approach curvature within 50m or the local layout) then the alignment should be to a point 1.5m above ground level on the edge of the footpath at the point where a vehicle driver can first sight the road traffic light (wig wag), in order to give the motorist the earliest possible view of the flashing lights.”