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LEVEL CROSSINGS AND TRAIN VISIBILITY – THE NEW CODE OF PRACTICE EXPLAINED

ONRSR has released the first Code of Practice covering level crossings and train visibility – so what does it mean for rail transport operators specifically and for a host of rail safety stakeholders including members of the public?

The code provides the Australian rail industry with best practice guidance to support operators to strengthen the controls in place to address the safety risks posed by level crossings. Several large national operators including Pacific National and Aurizon have committed to adopting the new code – in addition to operators like CBH in Western Australia which has already begun modifying its fleet to incorporate additional lighting.

Australia's Transport and Infrastructure Ministers tasked ONRSR with developing the code as part of a suite of actions that are needed by governments, industry and regulators to improve level crossing safety. The code is not a 'silver bullet' but a well-considered and responsibly developed safety tool backed by a significant body of independent research which will help address part of the level crossing safety challenge.

The code is the result of engagement with a wide range of stakeholders, including those with lived experience of rail collisions, industry representatives, unions, governments, and subject matter experts. Throughout the consultation process, ONRSR worked to address the different perspectives of stakeholders to produce a code that best assists rail transport operators to strengthen the safety management systems that underpin operations where trains interact with people, drivers and vehicles.

As part of a multifaceted approach the management of risks to safety at level crossings, the code facilitates a particular emphasis on identifying the suite of tailored risk controls for train visibility, encouraging consideration of the illumination of locomotives along with addressing things like surrounding vegetation and approaches to crossings that improve the visibility of trains to road users.

ONRSR will complement its release of the code with in-field compliance and education activities nationally. As a document approved by Australia's Transport and Infrastructure Ministers, the code of practice has legal standing and a court may use the code as evidence to determine whether a rail transport operator, so far as it reasonably practicable, addressed a safety risk and complied with Rail Safety National Law (RSNL).

A rail transport operator who has not adopted the code would need to demonstrate they have implemented an alternative solution with the same or better control measures as evidence of whether or not they have complied with the RSNL. In addition to the consultation process, ONRSR considered a range of data and information in developing the *Code of Practice – Level Crossings and Train Visibility*. This included historical records of tens of thousands of rail safety occurrences reported to the national regulator along with two major pieces of academic research.

Conducted by the Monash Institute of Railway Technology (Monash IRT), an initial independent research project looked at how specific controls such as flashing beacons on locomotives and the conversion of train headlights from halogen to LED impacted train visibility for road users. This was followed by a second round of research that looked at the effect of additional front and side locomotive lighting. The researchers made important recommendations from both studies that have now been incorporated into the broader set of controls that the code requires operators to consider when assessing the risks posed by their specific rail operations at level crossings.

The findings of the Monash IRT research were also important in defining the scope of the code of practice and making sure it considered the full range of factors that can create hazards at level crossings – including not only train visibility but also vegetation management, signage, crossing infrastructure and locomotive cleanliness that can affect train visibility. The researchers emphasised the importance of rail operators considering ways to prevent incidents during the day – which data shows is when the vast majority of level crossing incidents (74% of collisions and 81% of near-hits) occur.

As mentioned, development of this code is not the only work underway to improve level crossing safety across Australia.

Late last year, the Rail Industry and Safety Standards Board (RISSB) released its revised Australian Standard 7531 – Rolling Stock Lighting and Visibility which implemented a series of recommendations from Monash IRT's first research report. RISSB has since begun the process for updating the standard again to incorporate the second round of research.

Earlier this year, Australian Governments, through the National Level Crossing Safety Committee released the National Level Crossing Safety Strategy 2023-2032. A wide range of government, regulatory, industry and operators committed to actioning the strategy following the National Level Crossing Roundtable, held in Brisbane in March, and work is being progressed on various fronts including the development of a national public education campaign and enhanced data collection and access along with various State Governments committing to trials of new lower-cost technologies at regional level crossings to advance the multifaceted approach required to improve level crossing safety.

Work is also underway on implementing recommendations out of the National Transport Commission's (NTC) comprehensive review of *Rail Safety National Law*, which was released in June this year. Road/rail interface management was a key theme in the recommendations which include that the next ONRSR code of practice focus on how to make these agreements more robust and enforceable in order to drive safety improvements. The NTC review also calls for measures to

strengthen and improve requirements for identifying and managing interface risks such as providing ONRSR with the power to review and direct amendments to interface agreements between road managers and rail infrastructure managers.

ONRSR is proud to release the new *Code of Practice - Level Crossings and Train Visibility* and is confident its introduction will be an important part of collective efforts to improve safety at thousands of level crossing around the country. Safety at level crossings relies on significant coordination and action to manage the risks. Members of the public, rail transport operators, road transport industries, governments, emergency services and regulators all have a vital role to play.