

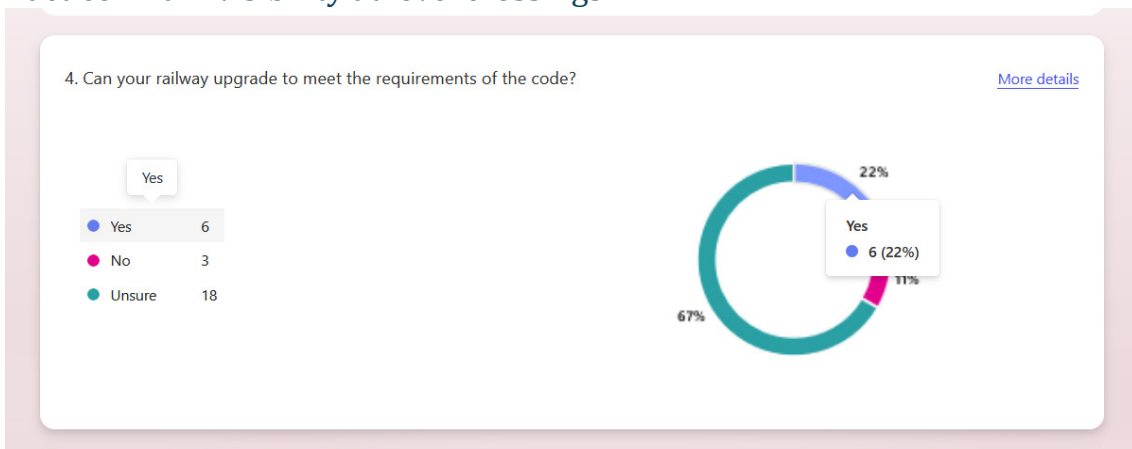


## ONRSR Code of Practice – Train Visibility at Level Crossings

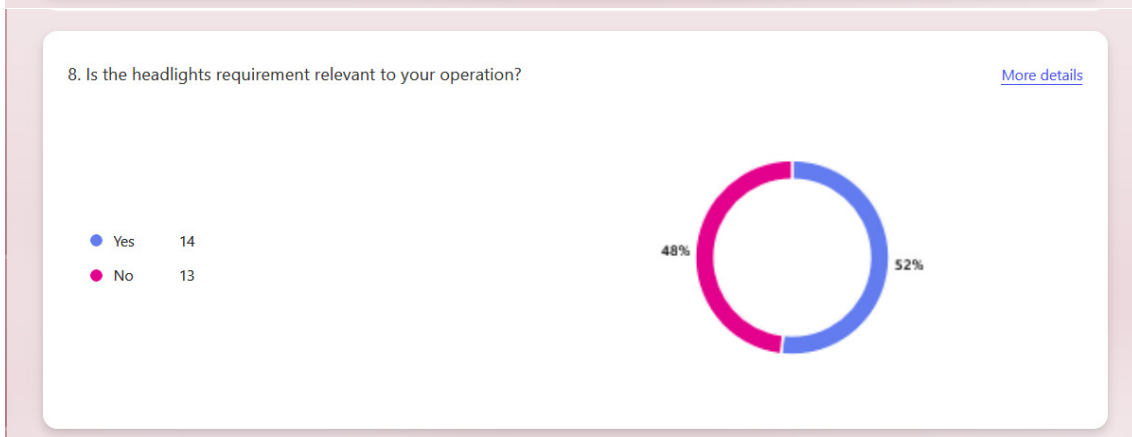
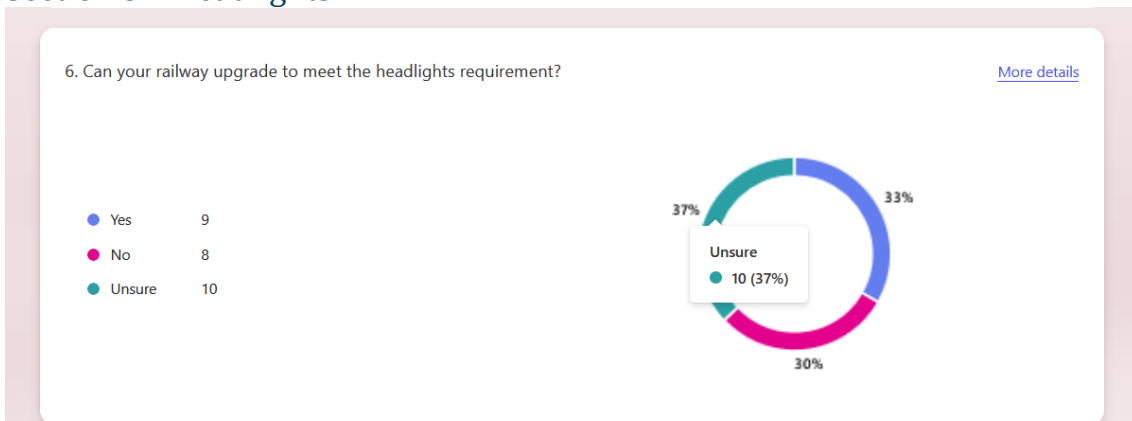
Results of the ATHRA survey into the ONRSR Code of Practice (CoP) – Train Visibility at Level Crossings

The results are supplied firstly as a “Yes / No / Unsure response to the questionnaire” and secondly the data was then normalised through the consolidation of common or very similar question into a single question along with the removal of the statements that were not supportive of a specific question.

### Code of Practice: Train visibility at level crossings



### AS 7531 Section 3 – Headlights

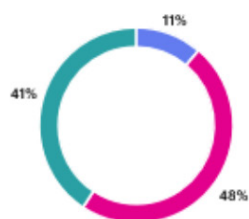


## AS 7531 Section 4 – Visibility (ditch) lights

10. Can your railway upgrade to meet the ditch lights requirement?

[More details](#)

● Yes	3
● No	13
● Unsure	11



12. Is the ditch lights requirement relevant to your operation?

[More details](#)

● Yes	11
● No	16

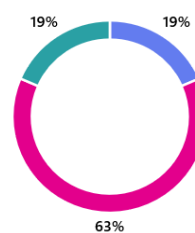


## AS 7531 Section 11 – Livery

14. Can your railway upgrade to meet the livery requirement?

[More details](#)

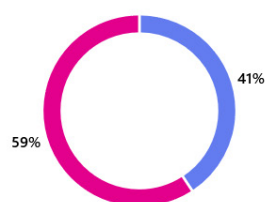
● Yes	5
● No	17
● Unsure	5



16. Is the livery requirement relevant to your operation?

[More details](#)

● Yes	11
● No	16

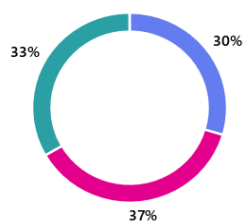


## AS 7531 Section 12 — Reflective delineators

18. Can your railway upgrade to meet the reflective delineator requirement?

[More details](#)

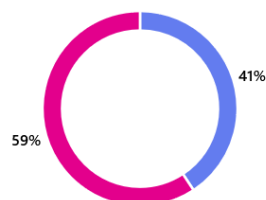
● Yes	8
● No	10
● Unsure	9



20. Is the reflective delineator requirement relevant to your operation?

[More details](#)

● Yes	11
● No	16

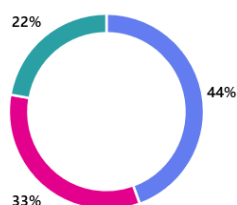


## AS 7658:2020 Level crossings —rail industry requirements

22. Is AS 7658 relevant to your operation?

[More details](#)

● Yes	12
● No	9
● Unsure	6

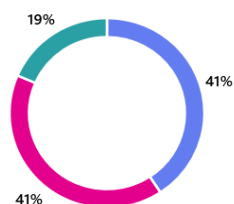


## AS 1742.7:2016 Manual of uniform traffic control devices: Railway crossings

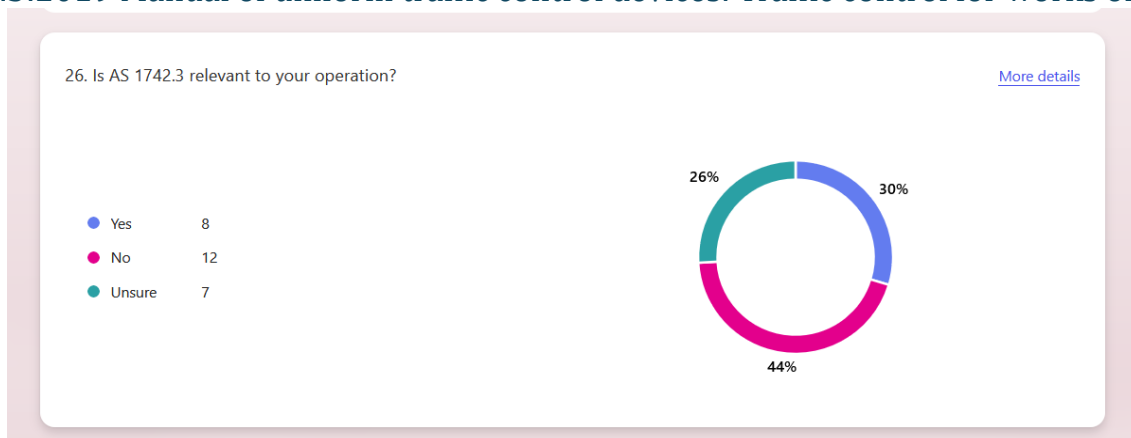
24. Is AS 1742.7 relevant to your operation?

[More details](#)

● Yes	11
● No	11
● Unsure	5



## AS 1742.3:2019 Manual of uniform traffic control devices: Traffic control for works on road



### Comments

In response to the survey, the majority of members (67%) were unsure whether they were able to upgrade to meet the requirements of the CoP.

In summary:

- Most operators are unsure of whether they can meet the requirements of the CoP. Can ONRSR guarantee sufficient education and assistance to the sector?
- Tramway operations are outside scope of AS 7531. Can ONRSR please confirm this, as it has caused some uncertainty from the tramway's groups?
- Section car operators need to meet a lesser headlight standard and road rail vehicles only need to meet the relevant ADR for the vehicle in question, according to AS7531. The CoP seems to exclude maintenance vehicles. Can ONRSR please confirm this is their interpretation?
- Can operators do their own risk assessment and determine that their particular operations, e.g. low speed, low volume road traffic, do not warrant meeting the requirements of the CoP? If so, can ONRSR assist in providing model risk assessment that supports this approach?
- Does only operating in daylight reduce any of the requirements for headlights and ditch lights?
- Does internal lighting of carriages mitigate need for reflective delineators?
- The code doesn't really provide much guidance to the sector. Does ONRSR consider AS7531 in its current format capable of being implemented on early C20th rollingstock of limited physical size and low electrical output? Does ONRSR believe that AS7531 may need the addition of an 'existing rollingstock' or 'heritage rollingstock' section to mitigate these issues?

### Questions, concerns, comments from ATHRA members

1. This CoP has some ambiguity regarding when AS7531 – Rolling stock lighting and visibility is also to apply to existing rolling stock, it doesn't clearly articulate that the RSO can complete a risk assessment to identify the suitability of the controls identified for their operation.
2. Can ONRSR provide practical assistance to the T&H industry in the form of:
  - i. Carry out testing in conjunction with the T&H industry to examine what headlights can meet the current AS7531 requirements
  - ii. For all known voltage systems where T&H operators need to upgrade headlights, recommend a 'standard headlight' that meets the headlight requirements and does not require the T&H operator to carry out validation testing.

- iii. Carry out testing in conjunction with the T&H industry to create a 'standard visibility light' that meets the current AS7531 requirements and can easily be purchased, constructed or adapted by T&H railways to fit to existing rolling stock. This will need to work with multiple voltage systems.
  - iv. Carry out testing in conjunction with the T&H industry to examine how the livery requirements can be achieved on a steam locomotive, noting the issues around limited availability of high temperature paints.
  - v. Consider funding the provision of reflective delineators to T&H railways that have not yet fitted these.
3. If T&H operators cannot comply with AS7531 due to physical or technical limitations, will ONRSR expect them to carry out a full derogation process as per AS7501 or will risk assessment within the operator's SMS be seen as meeting compliance?
  4. Can ONRSR provide a case study to assist T&H railways understand implementation of the CoP? A possible case study is an isolated T&H operator, running trains up to 30 km/h in a regional / rural setting, across one secondary road plus three forest roads and three farm tracks. All crossings are passive. They run steam and diesel locomotives with limited electrical output and operate in daylight only. Does this railway need to upgrade to meet the requirements of AS7531? If not, what would ONRSR see as 'SFAIRP' steps the railway could take?
  5. ONRSR focus on high traffic, high load commercial operations is justified. However, there is a significant diversity of operation types in Australia who are operating with excellent records and manage risk with outstanding results. Should the CoP have considered the breadth of operators in Australia and provided a flexible risk assessment tool for appropriate management of the risks?
  6. We wish to express our support for the code and its overarching objectives. However, we must raise a critical question to the Office of the National Rail Safety Regulator (ONRSR): what is the rationale behind the arbitrary decision in Section 10.3 to impose a standard (AS7531) on heritage operators, when the standard itself was formulated expressly in consideration of new and modified rolling stock, rather than century-old ones?

This situation is akin to the Civil Aviation Safety Authority (CASA) mandating that the DC3 aircraft at Essendon meet standards applicable to modern aircraft, or Vicroads requiring vintage buses and cars to conform to contemporary road safety compliance.

7. A concern is being forced into activation of more crossings along with the cost of ongoing maintenance. For a heritage operator the cost to activate and maintain is prohibitive. Is there a pool of money available to assist with this process?
8. It's a "code of practice" that's "optional", but not really and will be used against operators in court, prosecutions, etc. Can ONRSR expand on how they see compliance being enforced?
9. We agree that it should be a requirement of the code that operators must undertake, as far as reasonably practicable, measures to maximise the conspicuity of their rolling stock. However, to expect heritage operators to comply with a standard that was produced without consideration nor consultation of their unique operational context is unreasonable. Will ONRSR consider how scalability may be achieved?

We advocate for the following measures to effectively reduce the risk of level crossing collisions on heritage railways:

- i. Provision of active protection at all crossings with restricted visibility due to topographical issues and reasonable traffic density. This is the most effective way to mitigate risk.
- ii. Can ONRSR assist in an exemption for all rail operators, including heritage groups, from the requirements to obtain a permit to clear native vegetation at level crossings to improve sighting angles and views. This exemption should also include the elimination of setoff requirements for cleared vegetation.

These measures present a more efficient way of reducing risk, as they affect all movements on the railway, including track machines, and do not necessitate modifications to multiple items of rolling stock.

10. Is the CoP relevant for heritage rollingstock & locomotive operating on isolated branch lines at low speed (i.e. <40 km/h)



11. What's being done to increase awareness for motorists around Level Crossings (i.e. distractions, concentration, speed)?
12. This Code of Practice needs a review as it does not consider all types of level crossing, rather taking a one size fits all approach - something which conflicts with the Rail Safety Act which is very much about fit for purpose, scalability etc. This appears not take into account heritage operations and the impacts on the sustainability of those operations where there is no justifiable reduction in risk. Would ONRSR look at each T&H operator on a case by case basis to provide practical assistance?
13. How does the Code of Practice compare with comparable western countries requirements, when statistically Australia has one of the lowest, if not the lowest, number of rail incidents involving level crossings as a ratio of the number of level crossings v number of registered motor vehicles?
14. ATHRA member railways have been asked to provide to the ONRSR a letter stating by that by the '*close of business 28 February 2025*' that they will comply with the level crossing code of practice. This is not realistically possible when a number of significant engineering and logistical questions / issues require clarification or resolution. In consideration that '*the timeframe for delivering the program of work may be agreed between a rolling stock operator and rail infrastructure manager but must not exceed 5 years for non-compliant rolling stock*', can the ONRSR please provide a response time in consideration of the significant engineering question and issues that must be resolved.

*Peter Anderson*  
*ATHRA Director of Safety and Regulatory Matters*  
*6 February 2025*