



# AUSTRALIAN ASSOCIATION OF LIVE STEAMERS

AALS Website  
[www.aals.asn.au](http://www.aals.asn.au)

Limited  
ACN 107 882 404 - ABN 81 107 882 404

## AUSTRALIAN LIVE STEAMERS SAFETY COMMITTEE

**Chairman:** Allan Wallace: [chairmanALSSC@aals.asn.au](mailto:chairmanALSSC@aals.asn.au)

**Secretary:** Alf Grigg: [secretaryALSSC@aals.asn.au](mailto:secretaryALSSC@aals.asn.au)

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11<sup>th</sup> June 2019

The Secretary  
AALS Member Club as addressed.

Dear Sir/Madam

**Guidance note re AALS Interoperability Code of Practice (2019) section 4 on braking requirements.**

This AALS Guidance Note provides supplementary, non-binding, information relevant to the AALS Interoperability Code of Practice (2019) section 4 on braking requirements.

**Please take note also of a temporary concession regarding mandatory guard-operated braking for Heavy trains at the end of this Guidance note.**

The AALS Interoperability Code of Practice (2019) mandates that braking systems on trains used for public running must meet certain minimum requirements. These include that light engines and trains must be capable of stopping in compliance with the Society's Braking Policy. Note that the AALS Operational Code of Practice (2013) clause 5.1.1.2 already requires that Societies have a Braking Policy. The policy should specify braking performance appropriate for the society's track and public operation. It is the responsibility of the executive of each society (or "policy authors") to identify what is adequately safe for their operation and record how a light engine or train braking system is to be assessed for compliance with their policy.

Policy authors may stipulate local requirements exceeding the minimum AALS requirements if they consider it necessary for the safety of their operation. Obviously, the effect on visiting operators on public field days should be considered.

It will be recognised that safe train operation requires more than a braking system that can pass a given test, such as meeting a defined stopping distance from a certain speed. An experienced and aware driver can easily compensate for a low-performing braking system, but not the other way around: the best braking system cannot compensate for an inexperienced or inattentive driver. Braking incidences due to technical reasons are extremely rare. Almost always the cause is a human factor, such as inattention, excessive

speed or misjudgement. Braking policy authors should acknowledge the importance of operator training in relation to braking. Key training aspects may include:

- Operators must be satisfied that all required brakes are in operational condition before entering service.
- Operators bringing a train into service, or taking over an unfamiliar train, should at the earliest opportunity conduct a running brake test (i.e. a brake application, not necessarily to a complete halt) in order to get a "feel" for the braking capabilities of their train. This is especially important when the train is heavily laden since stopping distances are significantly extended.
- Operators and safety officers need to have ready access to information on the minimum brake system requirements when preparing a train for service. It would be appropriate to have these prominently displayed in the track workshop or rolling stock sheds. Some societies offer handy "pocket" guides, which are especially useful for visiting operators.
- Training manuals should contain information on how to stop a train if there's a brake system failure.
- New operators need to be made keenly aware of the extremely strong influence of speed, gradient and loading on the stopping distance.

In addition to recognising the importance of driver training, track managers can limit stopping distances by strategic setting of track speed limits.

Policy authors may consider establishing a stopping distance test site at some suitable location on their track. It is common to require trains under test to apply brakes at a set target speed, and to stop within a set distance. In miniature rail operations there appears to be little justification for making this distance dependent on the train length. This guideline suggests that a fixed maximum stopping distance is appropriate for all trains on a given track. In most societies there is a wide variety of trains and it may be necessary for different speed limits to be applied to different types of trains, according to the speed at which they can achieve the same stopping distance. This is common practice in full size railways.

This guideline does not imply that all societies should implement stopping distance assessments. Some societies may choose alternative approaches more suited to their operation. If a society has a demonstrated good safety record using well-established and workable (but perhaps undocumented) procedures then the proposed Interoperability Code (as well as the existing Operations Code) imply that those procedures should be formally documented.

Alf Grigg is available at any time on 0428164 890, or an E-mail message sent to [aagricon@bigpond.com](mailto:aagricon@bigpond.com) should you wish to discuss any of the above.

Regards

Allan Wallace, Chairman AALSSC

Alf Grigg Secretary AALSSC

## **Temporary Concession regarding mandatory guard's braking on trains in the Heavy category**

The table of minimum requirements (Clause 4.5) mandates that on a Heavy category train the guard must be able to apply brakes. Note that this does not necessarily imply full train braking and could involve only the guard's carriage. The amount of braking is at the discretion of the club's policy.

However, since the 2018 consultation process closed, some clubs have approached the committee with the suggestion that the hazard addressed by this requirement could be covered where there is fully reliable communication between the guard and driver. The committee has accepted the following interim measure:

"Expiring 30 June 2020, the "mandatory" requirement for guard's braking on heavy trains is relaxed to "recommended" provided that the guard is in radio (or equivalent) contact with the driver. Contributions in the 2019 consultation will be invited regarding whether this concession should be made permanent."

11/6/2019