

AUSTRALIAN ASSOCIATION OF  
**LIVE STEAMERS**

CODE OF PRACTICE  
OPERATION OF MINIATURE RAILWAYS, ROAD VEHICLES AND PLANT



**OPERATIONS**

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## Authoring, Consultation and Approval

This document was produced by the Australian Live Steamers Safety Committee, a subcommittee of the Australian Association of Live Steamers Limited ABN 81 107 882 404 (AALS) For the Registered Office refer to the AALS Reference document.

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## About this code

This Code of Practice has been compiled by the Australian Association of Live Steamers for use by Member Societies so that a minimum standard of competency can be achieved by their Society Members.

By adopting the requirements and procedures outlined in this code the Association and its Member Societies recognise their obligation to provide a safe environment for visiting public and members alike which will be engendered at the many operating locations throughout Australia.

This Code of Practice for the Operations of Miniature Railways, Road vehicles and Plant was revised and re-formatted in 2009 as part of the general revision of the Code of Practice, to reflect changes made at the April 2009 & 2010 convention and suggestions made through a formal process of consultation to make the document more user-friendly and comprehensive.

## Distribution and change

The AALS maintains the master for this document and publishes the current version on the AALS website [www.aals.asn.au](http://www.aals.asn.au)

Any changes to the content of this publication will also update this control page. The control page defines the current version of this document. Changes to this document are approved by vote by the member Society's of the Association in accordance with the Association's Constitution and Standing Orders.

## Disclaimer

This document has been produced for use by the member Societies of the Australian Association of Live Steamers. Use by others for any purpose is at the users own risk.

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## **1. GENERAL**

- 1.1 This Code of Practice is intended to cover minimum safe operating requirements of affiliated societies operating miniature railways of gauges between 32mm (1¼") and 204mm (8"), operating at a speed not exceeding 20 km/h, road vehicles and plant, as non-commercial hobby operations.
- 1.2 This code is in accordance with the Aims and Objects as detailed in the Australian Association of Live Steamers Constitution.
- 1.3 The purpose of this code is to enable Societies to fulfil the requirements of the Amusement Devices/Structures Regulations within the various States of the Commonwealth of Australia and detail the differences between commercial and non-commercial hobby type operations not found in the Standards Association of Australia, Australian Standard 3533 - 2009 (AS 3533) Amusement Rides and Devices - Section 5.9 Trains.
- 1.4 The aim of this code is to provide a standard operating basis, acceptable to various State Statutory Authorities and in line with SAA Australian Standard for Amusement Rides and Devices, in order to allow free movement by members of societies for the purpose of operating their various equipment throughout the Commonwealth.
- 1.5 It is recognised that the requirements for statutory inspection and registration differ from State to State and may vary or add to the requirements of this Code.
- 1.6 This Code is not intended to be the cause of stifling useful development; new ideas will always be considered and amendments issued from time to time.

## **2. CONTEXT**

- 2.1 This Code of Practice for Operation of Miniature Railways, Road Vehicles and Plant should be read in conjunction with:
  - 2.1.1 AALS Code of Practice:- Standards for Interoperability and Safety of Miniature Railways, Road Vehicles and Plant;
  - 2.1.2 AALS Code of Practice:- Training of Operators and Attendants of Miniature Railways, Road Vehicles and Plant; and
  - 2.1.3 AS 3533 - 2009 Amusement Rides and Devices.
  - 2.1.4 AALS Constitution
  - 2.1.5 AALS Standing Orders

### 3. DEFINITIONS

- 3.1 **AALS** means Australian Association of Live Steamers Limited ACN 107 882 404
- 3.2 **Amusement Device/Structure** shall be defined as a Device/Structure that is operated for hire or reward and is intended to carry members of the public for their entertainment or amusement.
- 3.3 **Attendant** shall be a suitably trained person who acts as a guard, station master, station assistant, signaller or any other person who carries out any other function or activity necessary for or which contributes to the safe operation of a Miniature Railway.
- 3.4 **Competent Person** means a person referred to in clause 4.6.2
- 3.5 **Cut Out Device** shall be a suitable device, when operated, will render the locomotive or equipment inoperable.
- 3.6 **Direct Supervision** means supervision by an Operator, 18 years of age or older, who will be in such a position that he/she can immediately take control in the event of an emergency. i.e. riding immediately behind the operator or walking alongside.
- 3.7 **Driving Carriage** shall be defined as a carriage that is designed to carry a number of persons who may comprise a combination of Operator, Trainee operator or Public passengers. Such carriage shall be positively coupled to the locomotive and the locomotive or carriage shall be fitted with an effective brake.
- 3.8 **Driving Truck** shall be defined as a carriage used for the express purpose of carrying an Operator only in order to operate a locomotive. Such carriage shall be positively coupled to the locomotive and the locomotive or the carriage shall be fitted with an effective brake.
- 3.9 **Engine** shall be defined as the prime mover.
- 3.10 **Hazard** means the potential to cause harm to health and safety of persons within the Society environs.
- 3.11 **Internal Registration** shall be defined as the procedures adopted by Societies to record equipment belonging to the society and its members.
- 3.12 **Light Engine** shall be defined as a Locomotive with Operator riding upon or in the Locomotive, or a Locomotive with Driving Truck or Driving Carriage attached, the Operator only riding thereon.
- 3.13 **Locomotive** shall be defined as an Engine, Tender, Tank Engine, Non-Steam Engine and any attached driving truck or driving carriage. (See also clause 3.25)
- 3.14 **Miniature Railway** shall be defined as Trains operating on a track gauge of between 32mm (1¼") and 204mm (8") and operated by Non-Commercial Hobby Societies within the scope of the Australian Association of Live Steamers Constitution.
- 3.15 **Miniature Road Vehicle** shall be defined as a vehicle of scale proportions powered by any external or internal fuel source and not restricted to a track in its operations.
- 3.16 **Non-Commercial Hobby Society** shall be defined as those groups of people who have joined together for a common purpose and who are not established to, and do not, make a profit for their members. Funds that are accumulated by the organisation are used to further its objects rather than to better the financial position of its members.

- 3.17 **Operator** means a person who has demonstrated that, through a combination of training, education, and experience, the knowledge and skills sufficient to enable that person to have primary control of a Light Engine, a Locomotive, or a Train (and see clause 3.17.1)
- 3.17.1 **Note:** *In order to be more specific, in certain areas the term Driver is used in lieu of Operator.*
- 3.18 **Plant** Shall be defined as any machinery, equipment, appliance, implement and tool, any component thereof and anything fitted connected or appertaining thereof.
- 3.19 **Public Passenger Carriage** shall be defined as a carriage for carrying members of the public.
- 3.20 **Risk** means the probability of persons in the Society environs being harmed by a hazard.
- 3.21 **Safe Working Procedures** shall be defined as a system devised for the safe passage of trains over the track system and shall include signalling, training of Operators and Attendants and adequate control of the public.
- 3.22 **Scale Type Rollingstock (Non-Riding)** shall be defined as miniature versions of full size railway rolling stock not designed to carry public passengers.
- 3.23 **Shall** in the interpretation of this code, the word 'SHALL' is to be understood as being mandatory.
- 3.24 **Should** in the interpretation of this code, the word 'SHOULD' is to be understood as being advisory.
- 3.25 **Society** means a member club of the Australian Association of Live Steamers Limited.
- 3.26 **Stationary Boilers** shall be defined as Locomotives for purpose of Section 4 below.
- 3.27 **Train** shall be defined as a Locomotive hauling a set of Public Passenger Carriages and/or Scale Type Rollingstock (Non-Riding).

## **4. HAZARD IDENTIFICATION AND MANAGEMENT**

### **4.1 Policy**

- 4.1.1 With most operations, especially those involving machinery and persons, a number of hazardous situations may occur.
- 4.1.2 In order to ensure that the operating environment of each Miniature Railway is as safe for visiting public and members as is possible, each Society shall identify hazards that may apply to their particular situation.
- 4.1.3 In identifying a possible hazard it then follows that necessary procedures be put in place so as to remove the possibility of any hazard causing injury to members and public alike.
- 4.1.4 No two sites will be the same and each one must be considered on its own merits by the Society.

### **4.2 Registration**

- 4.2.1 Due to changes in Work, Health and Safety legislation by various States, some States may not require Registration or an annual inspection of equipment etc. The Association recommends that where such changes have been made that societies continue to carry out inspections and safety checks as applies prior to the changes in legislation and in any case no greater period than two years.
- 4.2.2 Non-commercial hobby clubs within the scope of the Australian Association of Live Steamers Constitution, operating trains and rides for the public hire or reward shall be registered as an amusement device/structure as required by State Statutory Authorities. Hobby societies operating trains and rides for private use only, may be exempt registration in some states.
- 4.2.3 Each Amusement Device/Structure shall consist of two basic components:
  - 4.2.3.1 Fixed components consisting of track, bridges, support structures, signals, fencing and tunnels plus any other items of a permanent nature relating to the track and its public operation.
  - 4.2.3.2 Transportable components consisting of locomotives, public passengers carriages, driving trucks and scale type rolling stock (non-riding).
- 4.2.4 Driving trucks & scale type rolling stock (non-riding), are not considered to be required to be registered with the State Authority. Scale type rolling stock of 7¼ inch gauge or larger and of significant mass and used concurrently on the same track as public running shall be safe for operation in accordance with the requirements of 4.2.7 below.
- 4.2.5 Transportable items of non-commercial hobby miniature railways registered with a State Authority and operating under this code shall be acceptable for operation on similar railways within the State of registration and elsewhere in the Commonwealth of Australia.
- 4.2.6 Locomotives and carriages are not considered to be required to be registered with the State Authority.
- 4.2.7 All items of locomotives and rolling stock used for public operations (including driving trucks) are to be maintained in a safe condition. Each item shall be able to be identified.

4.2.8 Inspection and maintenance strategies shall be established to ensure safety. Records shall be kept of maintenance strategies and actions to prove due diligence and shall be made available on request of the relevant authority.

4.2.9 Records shall be available to the owners of the items. Where the locomotive or rolling stock is sold or the owner transfers to another society, a copy of the records of the item shall be forwarded to the appropriate Society.

#### 4.3 **Incidents**

4.3.1 Reports on all injuries to members and public alike shall be kept in a log book suitably located in or next to the First Aid Cabinet. A record of incidents should also be kept.

#### 4.4 **Insurance Claims**

4.4.1 In the event of an incident involving injury to Society members or members of the public generally, the following procedures shall apply:

4.4.1.1 DO NOT ADMIT LIABILITY.

4.4.1.2 Obtain name and address of injured party.

4.4.1.3 Obtain name of witness/es and a statement from same.

4.4.1.4 Obtain statement from driver, guard, station staff etc. involved.

4.4.1.5 Complete an Incident Report and file for future use if necessary.

4.4.1.6 If the incident is considered serious enough, inform the Insurance Company of a possible claim, inform the State Statutory Authority as required by State Legislation and forward a copy of the Incident Report to the AALS National Insurance Officer.

4.4.1.7 If the injured person requests the details of the Society's Insurance, DO NOT provide any details except the name and address of the Society's Honorary Secretary and request that any enquiries be made in writing.

4.4.1.8 In the event that the incident is further pursued in writing to the Society they should notify their Insurance Company immediately plus also notify the National Insurance Officer.

4.4.1.9 Details as outlined in 4.4.1.4 to 4.4.1.6 above are required in order to build up an Insurance Record for use by the Association in negotiations for possible National or Individual Society Schemes.



#### **4.5 Owner/User Inspection of Non-Boiler Plant and Equipment**

- 4.5.1 Boilers are to comply with the requirements of the Australian Miniature Boiler Safety Committee Code.
- 4.5.2 In the interest of assisting member societies with the further movement toward self regulation, this document offers guidelines for the selection of persons competent to inspect non-boiler items of plant and equipment owned by the society, and a minimum checklist of items to be inspected regularly.
- 4.5.3 Original design approval for certain items of plant and equipment should still be obtained in the first instance from a registered professional, and development approval if necessary should be obtained from the appropriate statutory authority.
- 4.5.4 After installation, it is acceptable that a competent person may be appointed to ensure that ongoing maintenance inspections of a society's non-boiler plant and equipment are carried out and records kept of these inspections. These inspections are the equivalent of, and are in lieu of, those inspections required as part of the Amusement Device registration.
- 4.5.5 If the statutory authority still requires an inspection as part of the amusement device registration then the requirements for those inspections take precedence over this procedure.
- 4.5.6 Professional inspections may be done at the discretion of an individual society.

#### **4.6 Competent Person**

- 4.6.1 A Competent Person must be appointed, whether from a society's membership or otherwise, and must comply with clause 4.6.2.
- 4.6.2 A Competent Person should be fully conversant with the AALS Code of Practice, and fulfil at least one of the following criteria:
  - 4.6.2.1 Hold a tertiary qualification in a mechanical or civil engineering field;
  - 4.6.2.2 Be able to demonstrate an extensive practical background in building or maintaining machinery and/or small structures. Any employment exposure to workplace health and safety practice would be desirable.
  - 4.6.2.3 Be able to demonstrate any other combination of qualifications and experience deemed to be acceptable by the society's executive.

#### **4.7 Scope of Inspection Process**

- 4.7.1 The scope of the inspection process will cover the amusement device and all existing associated structures used by the public. New equipment and structures may need prior approval by a registered professional or statutory authority.
- 4.7.2 Inspection particulars of plant and equipment covered by this scope shall include at least the following:

- 4.7.2.1 **Track:-** Structure should comply with the AALS Code of Practice: - Standards for Interoperability and Safety of Miniature Railways, Road Vehicles and Plant. Clearances to fixtures such as trees, bridge sides, signal posts, fencing, retaining walls, should comply with Section 4.8, below.
- 4.7.2.2 **Bridges:-** Structural integrity, including footings, walkways, handrails and stanchions, with particular regard to rust and/or rotting.
- 4.7.2.3 **Tunnels:-** Obstructions and structural integrity.
- 4.7.2.4 **Fencing:-** Effective in defining publicly accessible areas, and movement within those areas, - structural integrity, including operation of gates where fitted.
- 4.7.2.5 **Station structures:-** Structural integrity, including footings, walkways, handrails and stanchions and roof where fitted, with particular regard to rust and/or rotting.
- 4.7.2.6 **Public Passenger and Driving Carriage:-** Generally to comply with the AALS Code of Practice:- Standards for Interoperability and Safety of Miniature Railways, Road Vehicles and Plant:
- Structural integrity,
  - Enclosures,
  - Tyre condition,
  - Bogie operation,
  - Brakes where fitted,
  - Drawgear.
- 4.7.2.7 **Miscellaneous:-** Generally in accordance with Section 4.8 below, specifically including poles, trees, other overhead structures not previously mentioned, public areas including pathways, and any other potential hazards.

## 4.8 **Non-Exhaustive Identification of Hazardous Situations**

4.8.1 **Preamble:** Below are some possible hazards that may confront the average Society operating public open days. Each one is required to identify those that are applicable to their operating environment and take appropriate action to neutralise or minimise any possible effect they may have. This list shall be reviewed and upgraded annually. This list is not exhaustive.

### 4.8.2 **Hazardous Situations**

4.8.2.1 **Gauge Infringement:-** Objects such as buildings, trees, cuttings, walls, bridge sides or other fixtures too close to the centre line of the track. As a general rule if any object can be touched by outstretched hand then it is in a hazardous zone.

Rectify by:

- Removing or widening cutting or bridge sides if possible.
- If not then travel at restricted or slow speeds in the problem areas.

4.8.2.2 **Clothing, Footwear, etc,** Potential hazards identified in clause 5.7.2 in respect of illness, drugs and alcohol, seating, smoking, clothing, bare feet, and footwear..

Rectify by:

- Placing suitable signs around grounds, specifying the type of footwear and clothing that is acceptable. This to be a condition of entry and riding of trains.
- Station staff politely and firmly refusing to let intending passengers have access to trains. It is necessary to stress that it is for the safety of the intending passenger.

4.8.2.3 **Emission of Sparks:-** Sparks from steam locomotives can cause fires and also cause damage to passengers clothing.

Rectify by:

- Clearing dry undergrowth grass etc from edges of tracks and under bridges
- Fine tuning engines by suitable blast nozzle/grate ratios to achieve minimum draft requirements
- Using sieved/screened and washed coals of suitable size to lower cinder emissions.

4.8.2.4 **Track Alignment:-** Poorly Aligned Tracks.

Rectify by:

- Maintaining tracks on a regular basis to ensure a smoother riding right of way with gradual changes or directions and super elevation. Particular attention should be paid to rail joints which may drop with continual use. Special pullers may be made to correct this problem.
- Ballast, whatever the type used, should be packed so that the track is firm and does not “sag” or “pump” as trains move over the section.
- Suitable expansion joints may be needed to stop track lifting in hot weather. Number and type will depend on the exposure to the direct heat from the sun, length of straights and position of curves. Remember, to stop TRACK from becoming a HAZARD you need a regular maintenance program.
- Regular maintenance and checks are also required on all rolling stock, especially public passenger vehicles. Incorrect flange profile or excessive flange wear can be a hazard, causing derailments and therefore possible injury to passengers.

4.8.2.5 **Road Vehicles:-** Careful consideration should be given in choosing a design of road vehicle. Because they are likely to be in close proximity of the public items such as open gear trains, spoked flywheels could be hazardous areas. Care should be exercised when moving on roads or tracks used as public walkways.

4.8.2.6 **Plant:-** When displaying operating items of plant on public days attention shall be paid to positioning of protective barriers, hot water drains and exhaust manifolds. Barriers shall not allow public to reach moving/operating plant.

4.8.2.7 **Train Operation:-** Excessive speed in certain locations can result in derailment or overturning or excessive braking distances to avoid collision. Hazards may exist with overspeeds on curves, turnouts, gradients, bridges, and the condition of the infrastructure and the weight, height, design and condition of vehicles.

4.8.2.8 **Miscellaneous:-** Other possible hazardous areas are:

- Stairways, steps on bridges etc.
- Public pathways and facilities provided for public use (e.g. picnic tables, BBQ pits etc).

- Electrical installations both high and low voltage.
- Storage of equipment in workshops (e.g. flammable liquids etc).
- Dead trees and the possibility of falling branches.

### **Notes.**

4.8.3 The following preface shall be placed on all reports prepared by an authorised inspecting officer of the society:-

*"It is not our (my) claim or recommendation that this advice will eliminate claims. However, the correct adoption of safety procedures and preventative maintenance will help to reduce risk factors, thus allowing safer and smoother running operations of your (our) hobby facility. Failure to condemn any unsafe condition, operation or equipment at the time of inspection does not constitute approval".*

4.8.4 Persons who fulfil the requirements of clause 5.8 of the AALS Standing Orders and Section 4.6 of this Code and are appointed by an affiliated insured society may inspect equipment for any other affiliated insured society should that person be willing to perform such duties and so act at the request of any other society.

### 4.9 **Forms**

4.9.1 The following two forms are examples of Non Boiler Plant and Equipment Reports and may be photocopied for society use:

**Form 1: AMUSEMENT DEVICE CHECKLIST FOR MINIATURE RAILWAYS**

**Form 2: NOTES OF INSPECTION**

## Amusement Device Checklist for Miniature Railways - Form 1

Structure	Code of Practice Reference	Check For	Item	Checked By	Date
1. Track	<i>CoP Operations 4.7.2.1</i>	Track structure (ballast, etc.), Track Fixings (security of gauge) Clearances to fixtures e.g. trees, bridge sides, signal posts, fencing, retaining walls.	1.1		
			1.2		
			1.3		
2. Bridges	<i>CoP Operations 4.7.2.2</i>	Footings, walkways, handrail & stanchion security, rot, corrosion.	2.1		
			2.2		
			2.3		
3. Tunnels	<i>CoP Operations 4.7.2.3</i>	Obstructions, structural integrity.	3.1		
4. Fencing	<i>CoP Operations 4.7.2.4</i>	Effective in defining publicly accessible areas, structural integrity, including gate operation.	4.		
5. Station Structures	<i>CoP Operations 4.7.2.5</i>	Structural integrity, footings, walkways, handrails, stanchions, roof; rot, corrosion.	5.1		
			5.2		
			5.3		
6. Passenger Carrying Rolling Stock	<i>CoP Operations 4.7.2.6</i> <i>CoP Standards section 6</i>	Structural integrity, enclosures, tyres, bogie operation, brakes & drawgear	6.1		
7. Miscellaneous e.g. Poles, trees, overhead structures, public areas, pathways	<i>CoP Operations 4.7.2.7</i>	Structural integrity, footings, rot, corrosion, trip hazard.	7.1		
			7.2		
			7.3		

*"It is not our (my) claim or recommendation that this advice will eliminate claims. However, the correct adoption of safety procedures and preventative maintenance will help to reduce risk factors, thus allowing safer and smoother running operations of our leisure facility. Failure to condemn any unsafe condition, operation, or equipment at the time of the inspection does not constitute approval."*

**Notes of Inspection - Form 2**

Item	Notes	Noted By	Date
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

*"It is not our (my) claim or recommendation that this advice will eliminate claims. However, the correct adoption of safety procedures and preventative maintenance will help to reduce risk factors, thus allowing safer and smoother running operations of (your) our leisure facility. Failure to condemn any unsafe condition, operation, or equipment at the time of the inspection does not constitute approval."*

## **5. OPERATIONAL STANDARDS FOR MINIATURE RAILWAYS**

### **5.1 Policy**

#### 5.1.1 Each society shall:

- 5.1.1.1 Compile a manual of safeworking rules and general instructions for its operations. Societies should ensure that such manuals are clear and concise in their content. Safety related procedures should be clearly separate from administrative type instructions to enhance compliance
- 5.1.1.2 Establish a suitable braking policy for trains operating on their system. Such a policy shall be based on grades, weight and speed of trains operating on their system. Societies will satisfy themselves that the solution arrived at shall fulfil operating procedures. Because of the many differences from one system to another the arrangements adopted at one location may not fulfil the requirements at another location. Refer to AALS Code of Practice: - Standards for Interoperability and Safety of Miniature Railways, Road Vehicles and Plant.
- 5.1.1.3 Instituting and implementing adequate safe working procedures for Traffic operating on their system.
- 5.1.1.4 Ensure that all Operators and Attendants are competent in their duties.
- 5.1.1.5 Provide suitable first-aid and fire fighting equipment at each hobby miniature railway location.

### **5.2 Minimum Age**

- 5.2.1 The minimum age for Attendants during Public Running shall be fifteen (15) years of age.
- 5.2.2 The minimum age for Operators during Public Running shall be if operating a steam boiler, eighteen (18) years of age and otherwise shall be fifteen (15) years of age. Persons fifteen (15) to seventeen (17) years of age inclusive shall be under direct supervision of an Operator, eighteen (18) years of age or older at all times.
- 5.2.3 The minimum age for Operators during Non-Public Running days shall be seven (7) years of age. Persons seven (7) to seventeen (17) years of age inclusive shall be under direct supervision of a competent person, eighteen (18) years of age or older at all times.

### 5.3 **Operating Speed**

#### 5.3.1 Maximum operating speed shall:

5.3.1.1 Be a safe speed arrived at in consultation with the Competent Person and will be governed by the gauge, ruling gradients, radii of curves, plus any lineside restrictions that may apply to the individual system; and

5.3.1.2 Not exceed 20 km/h.

5.3.2 Societies should determine if the track layout, safe working systems, and operating conditions present hazards that justify the need for a speedometer to be fitted to each locomotive engaged in public running operation. If a speedometer is fitted, it shall be clearly visible to the driver. Where speedometers are used, societies shall also determine suitable speed restrictions for curves, turnouts and other hazardous locations and whether line side speed boards are required to relate the hazards to the appropriate safe speed. These speeds would need to be determined based on track condition, curvature, equilibrium speed, and overturning speed.

### 5.4 **Competency**

5.4.1 Operators/attendants shall be competent in their duties and be aware of the responsibility of the Society to provide a safe and secure environment for visiting members of the public, Society members and guests.

5.4.2 Operators and Attendants responsible for safe working shall be suitably trained and have demonstrated experience to carry out their duties in a safe and competent manner.

5.4.3 Societies shall compile and maintain a list of drivers considered sufficiently experienced to drive trains carrying public passengers. Societies should issue a card to drivers for use at other societies' tracks.

5.4.4 No person, other than qualified Operators, shall be permitted to operate trains during public passenger hauling operations.

5.4.5 Operators shall:

5.4.5.1 Be aware of maximum operating speeds, and any speed, load or other operating restrictions applying at the time of operations.

5.4.5.2 Be aware of action to be taken in case of emergencies including procedures for assisting ill or injured passengers.

5.4.5.3 Be aware of the Society's First Aid treatment arrangements and location.

### 5.5 **Training**

5.5.1 Training of Operators, Attendants and other personnel responsible for the operation of Miniature railways shall generally conform to the requirements of the AALS Code of Practice:- Training of Operators and Attendants of Miniature Railways, Road Vehicles and Plant.



## 5.6 **Equipment Fitness for Purpose**

- 5.6.1 Public passenger carriages, track and lineside fixtures must be inspected each day before the commencement of public operations to determine that:
- 5.6.1.1 Passenger carriages are structurally sound, complete and correctly coupled, and that brakes are continuous and operational.
  - 5.6.1.2 No portion of track is damaged, missing or worn such that it is unsafe or may develop into an unsafe condition during operation.
  - 5.6.1.3 Lineside fixtures are safe and clear of tracks.
  - 5.6.1.4 Points and signals are intact and are functioning correctly.
- 5.6.2 Any irregularities or defects found during the inspection are to be reported to the Duty Officer, or other responsible Society officials, and trains must not be operated until such irregularities are corrected or alternative safe arrangements are put in place to the satisfaction of the Duty Officer.
- 5.6.3 Factory installed safety devices must not be tampered with or removed.
- 5.6.4 If the ride is being misused in any way by the passengers, it must be shut down until the condition is corrected to the satisfaction of the Duty Officer.

## 5.7 **Train Operations**

- 5.7.1 All persons involved in train operations should take personal pride in operating safely.
- 5.7.2 Societies shall not allow to ride on a Train any person who:
- 5.7.2.1 Is visibly ill; or
  - 5.7.2.2 Is reasonably suspected of being under the influence of drugs or alcohol; or
  - 5.7.2.3 Cannot be safely seated on a Public Passenger Carriage or Driving Carriage; or
  - 5.7.2.4 Is smoking a cigarette, pipe or cigar; or
  - 5.7.2.5 Is wearing loose or flowing clothing which may risk entanglement with any part of a Public Passenger Carriage or with Plant; or
  - 5.7.2.6 Has bare feet; or
  - 5.7.2.7 Is wearing thongs; or
  - 5.7.2.8 Is wearing other unsuitable footwear such as open sandals, or scuffs unless:
    - a) the person is to ride in a Public Passenger Carriage or a Driving carriage of 7¼" (184.15mm) gauge with high sides of a height of at least 6" (150mm) measured from the floor to the top of the side; and
    - b) the person's footwear is fastened such that it cannot fall from the person's foot.
- 5.7.3 Trains shall not be started or operated while any person (passenger, spectator or Society member) is in an endangered or unsafe position on or near the train.
- 5.7.4 Passengers waiting for the next ride shall be kept away from any moving parts, and within the waiting area.

- 5.7.5 Station staff shall assist with the safe loading and unloading of passengers and the control of spectators.
- 5.7.6 Signalmen shall have a thorough knowledge of safeworking procedures and guide trains along the system in a safe and efficient manner.
- 5.7.7 Operators/attendants shall:
- 5.7.7.1 Arrange to stop the train immediately if any passenger is observed tampering with couplings or brakes or is behaving dangerously, such as standing up.
  - 5.7.7.2 Be cautious and ready for the unexpected where children are involved. Young (under 5 years) children should preferably be accompanied by a responsible adult and all persons must be seated on the carriage.
  - 5.7.7.3 Not allow seats to be rocked or passengers to stand up.
  - 5.7.7.4 Be alert when train is operating and be prepared for an emergency stop.
  - 5.7.7.5 Never, under any circumstances, walk away from the train while it is operating and carrying passengers other than to place rear end protection in the event of an unexpected stoppage.
  - 5.7.7.6 Take note of the nearest location of a fire extinguisher and be aware of its condition.
  - 5.7.7.7 Ensure that entrances and exits are closed off before the ride commences.
  - 5.7.7.8 Report any fault or malfunction immediately to the Duty Officer.
  - 5.7.7.9 Assist the passengers on and off the carriages when necessary.
  - 5.7.7.10 Not mount, board or leave a train while it is in motion.
  - 5.7.7.11 Not operate trains when feeling ill or if under the influence of drugs or alcohol.
  - 5.7.7.12 Not operate trains when smoking as it is a distraction and hot ashes can be dropped or blown into the eyes of passengers during the ride.
- 5.7.8 A guard shall:-
- 5.7.8.1 Ride on the last vehicle of a train consisting of three (3) or more public passenger carriages.
  - 5.7.8.2 Assist passengers on and off the train if required.
  - 5.7.8.3 Report any malfunction of the train to the driver immediately.
  - 5.7.8.4 Stop the train immediately if any passenger is observed tampering with the couplings or brakes, is not seated correctly or is behaving dangerously.
  - 5.7.8.5 Signal the driver to start from the station or halts on the track after he has ascertained that all passengers are safely seated and it is safe for the train to proceed.
  - 5.7.8.6 Assist the driver in control of passengers during the ride plus assist as required in dealing with obstructions.

5.7.9 The driver shall:

5.7.9.1 Remain in command of operating controls at all times and be alert for signals indicating the condition of the track ahead as well as other obstructions that may occur.

5.7.9.2 Not start until the "right away" from the guard has been received and acknowledged.

5.7.9.3 On a short train with no guard, be satisfied that passengers are safely seated at all times during the ride.

**5.8 Locomotive Operations**

5.8.1 Light engines operating during public passenger carrying sessions, shall be fitted with effective brakes.

5.8.2 Steam Locomotives left unattended shall:

5.8.2.1 Be in mid-gear, with the regulator shut, cylinder drain cocks open and hand brake applied or wheels spragged.

5.8.2.2 If fitted with slip eccentrics have the regulator shut, cylinder drain cocks open, hand brake applied or wheels spragged.

5.8.2.3 Have a full gauge glass of water.

5.8.2.4 Have the blower shut off.

5.8.3 Non-steam Locomotives left unattended shall:

5.8.3.1 Have brakes applied or be suitably spragged.

5.8.3.2 Have the cut-off device activated, to prevent accidental or unauthorised movement.

5.8.4 Refuelling of liquid or gas fuelled locomotives shall be carried out in a non-hazardous location, remote from the public defined by the Society.

**6. MINIATURE ROAD VEHICLES**

6.1 Miniature road vehicles shall be operated under all aspects of the codes where applicable.

6.2 Due to the possible close proximity of the general public special precautions shall be taken to ensure their safety.

**7. PLANT AND STATIONARY BOILERS**

7.1 Stationary Plant of all types shall be operated under all aspects of the codes where applicable.

7.2 Due to the possible close proximity of the general public special precautions shall be taken to ensure their safety.

## **8. AMENDMENTS TO THIS CODE**

- 8.1 2010 – Original issue version dated 14 April 2010.
- 8.2 2011- At the 2011 AGM amendments were made to sections: 4.4.1.9 (reference correction); 5.2.1 to 5.2.3 (age alterations and clarification, and change competent person to operator in 2011- At the 2011 AGM amendments were made to sections: 4.4.1.9 (reference correction); 5.2.1 to 5.2.3 (age alterations and clarification, and change competent person to operator in 5.2.3.). Section 5.8 format corrections.
- 8.3 2013 - Sections 4.8.2.7 & 5.3 adjusted to include speed as a hazard.