

## MEANZ SAFETY AUDIT CHECK LIST

### MODEL ENGINEERING ASSOCIATION OF NZ CHECK LIST GUIDELINES FOR AUDITORS

Club \_\_\_\_\_ Date \_\_\_\_\_

Club Rep Name \_\_\_\_\_ Signature \_\_\_\_\_

Club Exec Name \_\_\_\_\_ Title \_\_\_\_\_ Signature \_\_\_\_\_

**Track Gauges Available :-**  7 ¼ “  5”  3 ½ “  2 ½ “

#### **Does the Club have:- Ground Level Track Elevated/Raised Track**

The attached document has been devised as away of showing that MEANZ and its member Clubs are actively engaged in the pursuit of a safe environment where the operation of our hobby is married to the pleasure of the public. It is not intended that the auditing procedure will be anything like a “POLICE OPERATION” but rather take the form of an independent check of a Club’s safety systems, whilst at the same time passing on and gathering current safety practices.

We have a ‘Pool of Auditors’ established and they are made up of persons from Clubs.

In most cases, the Auditors will be selected by your Club from the list of available auditors. They will possibly join you for an Open Weekend and carry out the audit while your Club is operating.

*(Clubs to select two auditors from the pool rather than MEANZ or the lead auditors appointing them.)*

This system is proposed so that ultimately we can illustrate to the governing powers that we are capable of operating safely and that we have systems in place to ensure that we will continue to operate in a safe manner.

It is hoped that Clubs will view this document as a useful tool rather than an imposition and we look forward to your cooperation to make the system work in our favour.

**PORTABLE TRACKS:** The construction and operation of portable tracks are **not** included in the requirements for registration with MEANZ. Clubs will need to make their own arrangements for the control and inspections of their portable tracks and this may well mean a separate registration with OSH under the Amusement Devices Regulations.

#### **AUDITORS INSTUCTIONS:**

*Tick boxes have been placed so that it is simply tick and go to the next item.*

*Indicate in the appropriate box all items that comply and praise where good practice is already in place or noteworthy.*

*It is important to comment where good practice is non-existent or could be improved, or needs immediate attention to rectify a major hazard.*

*Questions that do not apply to the above club, tick the NON APPLICABLE (N/A) box.*

*After each section there is space for the Field Auditor to place comments or make extra notes.*

*The check list has a number system so use number to refer to what the notes refer to. Extra pages have been added so when you print off this document a couple of pages will print out.*

*Please use & write on this set of forms and return the complete set to your Lead Auditor for moderation when the audit is completed.*

## 1. FORMS & RECORDS

**Scope:** It is not an auditor’s job to impose their beliefs or ideas on a club, but to view the various operations and records of the club under audit and, to assess the suitability and adequacy of their systems to achieve the required safety standards for their particular operation. Where possible, Record books should be of the bound variety rather than loose-leaf, where sheets can not be removed or mis-appropriated.

1.1 Daily log book to record Manager/Operator, members, visitors, and locomotives operating on any track running day or working bee at the club site.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.2 Daily check list to cover opening up, including end of day closing up to ensure site is left as it was at beginning of session - be completed by the Day Manager - Operator for the day

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.3 Forms to cover the following –Daily check list –Hazards –Incidents –Accidents

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.4 Boiler test record folder for locomotives, steam road vehicle, steam boats, and stationary

steam plant.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.5 Boiler Inspectors Qualifications as per AMBSC Boiler Rules

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.6 Club rules/Drivers Instructions –a copy should be available if requested

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.7 Health and safety document

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.8 List of club approved personnel - Guards –Non steam drivers –Steam drivers

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.9 Locomotive identification folder for locos that run at the club track on a regular basis

including photo of the locomotive and contact details of current owner

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.10 Ride car inspection records for Passenger cars used in regular service at the club

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.11 Tunnels, and Bridges (over 1 Metre high) should have required a Local Body Permit and

possibly a design requirement by a Chartered Engineer. Auditors should check for such

documentation and accept it as evidence of a properly designed and constructed structure. Regular

inspections by competent people from within a Club are recommended. Where a Club feels that it

does not have suitable candidates, they should seek help from suitably qualified professionals

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

1.12 Verification certificate or letter for the club boiler test kit master pressure gauge

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**Detail Any Notes here**

## 2. HAZARD ASSESSMENT

2.1 Is there a system in place for ongoing Hazard Assessment. Not only should there be a system for recording Hazards, but also a satisfactory system for follow up action to remove or minimise the Hazard.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**2. Detail Any Notes here**

## 3. STATION & BUILDINGS

3.1 First aid kit location preferably designated by Green Cross, should be easily accessible and well stocked for minor injuries.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.2 Yellow Safety Line or appropriate rope or pipe barriers to indicate to the public a safe distance to stand back from rail tracks through station area.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.3 List of available members with First Aid background or certificates

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.4 Wall map showing nearest doctor / hospital emergency department

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.5 Fire extinguishers –Visible with appropriate signage.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.6 Check service / expiry dates on fire extinguishers

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.7 Hoses & fire fighting equipment readily available when steam locomotives operating.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

3.8 EXIT signs inside buildings above external doorways where people are likely to congregate.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

### 3. Detail Any Notes here

## 4. SIGNAGE

4.1 Warning sign located in station area advising passengers that –

“Miniature steam locomotives may emit hot sparks and oil spots”.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

4.2 Speed restrictions if deemed necessary for drivers in designated areas –

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

4.3 Give Way signs or operating signals at diamond crossings or crossovers

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

4.4 Other signage necessary for the safe operation of the railway

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

4.5 Public Restriction Signs **Permanent Temporary**

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

4.6 Signs to keep Public from accessing areas of potential Hazard/Danger/Risk areas.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

### 4. Detail Any Notes here

## 5. STATION OPERATION WHEN HAULING PASSENGERS

The station master or loading supervisor must ensure all passengers sit facing forward and advise passengers before their journey that when the train is in motion to sit still, keep good balance and not lean out sideways, keep arms in and feet on the support boards at all times, remain seated at all times until the train has come to a complete stop.

5.1 Appointed Duty Station Master.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

5.2 Does the Station Master wear or have available High Visibility Vest.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

5.3 Do the Ticket sellers wear or have available High Visibility Vests.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

5.4 Are the safety instructions being relayed to the passengers.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

### 5. Detail Any Notes here

## 6. FUEL AND DANGEROUS GOODS STORAGE

Fuel, petrol, diesel, LPG, paint & thinners etc should be stored well away from any naked light, fire place, kitchen, the station, clubroom & steaming bays area etc.

6.1 Storage locker or bunker well away from the Station, Clubroom or Steaming Bays area.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

6.2 Refuelling area allocated (Petrol, Diesel, L.P.G.)

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

6.3 Check to ensure that fuel or liquid containers are correctly labelled for their contents within.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

### 6. Detail Any Notes here

## 7. WORKSHOP SAFETY

7.1 Check all workshop machines for belt guards and that on a bench grinder the work rest is adjusted correctly –

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

7.2 Check that safety glasses or face shields are available

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

7.3 Check condition of extension power leads for damage

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

7.4 An RCD unit or Isolating Transformer should be available for use with portable electrical power tools connected to the Mains.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

7.5 General Tidiness of workshop area.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**7. Detail Any Notes here**

## **8. PERMANENT WAY –TRACK - VIADUCTS –BRIDGES – UNLOADING**

**Scope:** It is not the Auditors job to rule on routes, curve radii or grades.

The track bed should be built on stable (or stabilised) ground and have sufficient width to allow comfortable unloading of passengers, anywhere along the line, in the event of a derailment. In the event that this requirement is not able, to be achieved on both sides of the track then the narrow side should be provided with some form of protection to avoid any possibility of harm to passengers.

Is Railway operated in both directions.  Yes  No

If so then a general walking inspection of the track must be done in both directions looking for any major track misalignment, rotting sleepers or other areas which may need the attention of the maintenance crew.

8.1 Gates or doors on tunnels should have a method of fastening them open and closed

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.2 Check the walking surface on viaducts or bridges for loose or uneven boards

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.3 Check viaducts and bridges for signs of rotting timbers, rusting steel work and cracks in concrete that could suggest integrity failure of the structure.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.4 Check around the steaming bays, turntable / traverser areas for any sharp rail ends or other areas that could jamb fingers or cause damage to clothing etc

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.5 Check line side clearances relating to close signal posts, trees and foliage that may interfere with passengers. Minimum of 700mm from centre of track should be achievable.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.6 Are clearance warning tapes necessary on the approaches to low roof tunnels or low clearance bridges

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.7 Elevated railway tracks should have anti tip rails to prevent the passenger ride cars being able to tip and catch on the track support pillars.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

8.8 Passenger ride cars operating on elevated track should have a method to preventing passengers touching the rails between passenger ride cars while the train is in motion.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**8. Detail Any Notes here**

## **9. ROLLING STOCK, STEAMING BAYS, UNLOADING BAYS & VEHICLE & PEDESTRIAN CROSSINGS.**

It is advisable for a club to have a register of all Club owned locos and passenger cars that operate on a regular basis at the club. This register should show all maintenance and safety checks carried

out on this equipment. A person, or persons, should be appointed to keep the register and make sure that the checks are done and recorded at predetermined intervals.

9.1 Is there a system of checking rolling stock, and a register kept. See also 1.9

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

9.2 Is there a person, or persons, appointed to keep the register and make sure that the checks are done and recorded at predetermined intervals.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**Steaming bays** are potentially the most hazard prone area of a club's facility and ideally should be fenced off to prevent public access. Alternatively some form of temporary fencing together with some policing is required.

9.3 Is there some form of fencing or temporary fencing in place or available to put into place.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**Unloading areas**, where these areas are part of, or adjacent to, public areas the club should endeavour to limit the risk to the public by using signage and/or barriers.

9.4 Is there any signage and/or barriers in place to limit public access while in the process of unloading or reloading equipment.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**Walkways, tracks, and viewing areas.** Where these facilities are under the maintenance and control of the club then attention must be paid to their condition. i.e. steps, surface, handrails etc.

9.5 Check Tracks, walkways, steps & handrails for slippery surfaces, damaged timber or loose gravel which could be considered as hazardous to anyone.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**Crossings; Vehicle and Pedestrian** This always appears to be a high risk area, but recorded incidents seem to be nonexistent. However in order to minimise the perceived risk, measures should be taken to provide warning systems for both trains and vehicles/pedestrians.

Simple signs are a start with ongoing risk assessment which may eventuate in the installation of moveable barriers.

9.6 Check that Crossings, Vehicle Crossings and Pedestrian ways are clearly sign posted and risk minimised

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**Members and visitors equipment.** A system of recording members and visitors locos and ride cars should be established.

9.7 Check register of visiting equipment prior to a visitor loco entering service. It should be checked by a 'Safety Officer' to ensure that it complies with the club's safety requirements regarding couplings, brakes and back rests on the seats. Including any ride carriages.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

## 9. Detail Any Notes here

## 10. SIGNALLING

Does the club operate a signalling system  Yes  No

Does the club operate **Flags Lights Semaphore Signals**

Obtain signal code of practice from the club operating a signalling system.

10.1 Check that the signalling system is giving advice to drivers that is not misleading, works consistently and as intended.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

Observe Drivers and check the following:-

10.2 Are Drivers obeying signals as per the signal code of practice.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

10.3 Are Drivers complying with Station Staff directions.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

## 10. Detail Any Notes here

## 11. TETHERED RACE CAR TRACKS

11.1 Check that spectators are adequately protected by a suitable perimeter fence, well constructed and maintained such that in the event of a break-away, a race car cannot escape through the perimeter.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**11. Detail Any Notes here**

## 12. BOATING PONDS

12.1 Ensure the pond has the required local council approved safety fencing to keep unsupervised small children out of the pond area

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**12. Detail Any Notes here**

## 13. ON-GOING SAFETY TRAINING

13.1 Clubs should provide some evidence that they have or are implementing an ongoing programme of safety training for their members.

Achieved  Working towards  Not Achieved  Urgent Action Required  N/A

**12. Detail Any Notes Here**

**Auditor Name** \_\_\_\_\_ **Signature** \_\_\_\_\_

**Auditor Name** \_\_\_\_\_ **Signature** \_\_\_\_\_

**Date of Audit** \_\_\_\_\_

**Date sent to MEANZ Lead Auditor** \_\_\_\_\_

**Date sent to MEANZ Secretary** \_\_\_\_\_