



Model Engineering Association of New Zealand Incorporated.

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MEANZ Administration Manual

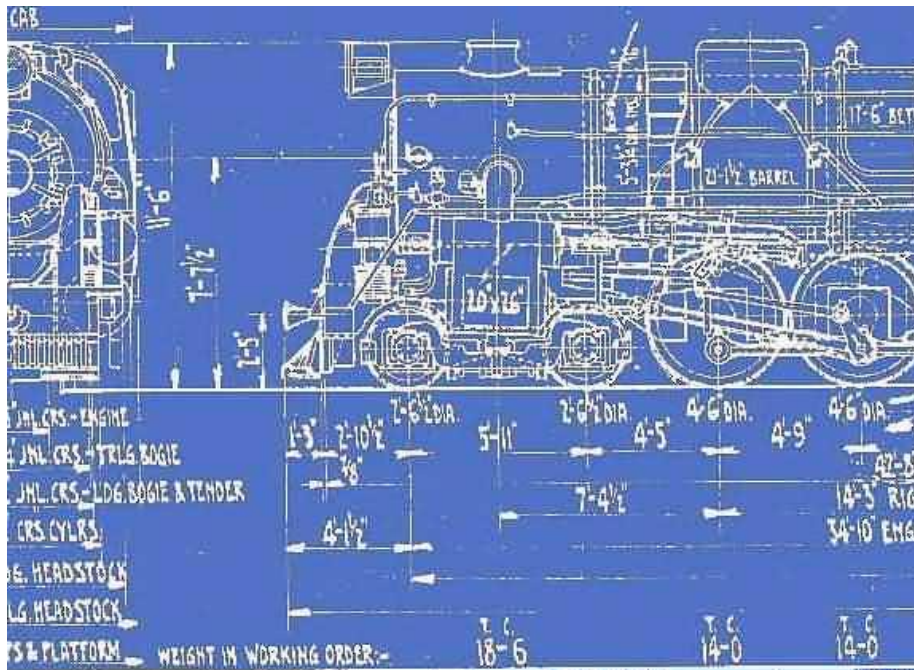


Table of Contents

1	MEANZ Background	3
2	Org structure.....	4
2.1	Professional Engineer Quality Assurance Program (formerly MAP 5)	4
3	Membership.....	5
3.1	How to apply (formerly Map1).....	5
3.2	Cancellation of membership (formerly Map2).....	5
3.3	Reporting requirements for member club (formerly map 4).....	6
4	Requirements for clubs operating a miniature railway (formerly Map3)	7
5	Miniature railway audits	7
5.1	MEANZ Safety Auditors' Inspection Duties (formerly Map6).....	7
5.2	MEANZ Auditor/ Competent Person– (formerly Map 10).....	9
5.3	Boiler inspection and testing procedures audit duties. Formerly Map 7.....	10
6	Standard forms (formerly Map8).....	10
7	Continuous improvement (formerly Map9)	11

1 MEANZ Background

The model engineering fraternity began in New Zealand many years ago with a club at Hamilton in 1931 followed by several other clubs in the early 1930s. These clubs developed as individual organisations. North and South Island associations evolved when it was recognised that there were a number of issues facing all model engineering clubs which might be better dealt with if all the clubs had a united policy.

In 1995 a meeting in Taupo resulted in the development of the present national organisation. Later that year the Model Engineering Association of New Zealand (MEANZ) became an Incorporated Society. One of its first achievements was to develop the MEANZ Manual of Approved Operating Procedures for Miniature Railways 1996. This was an attempt to set a code for our operations. The 1978 Amusement Device Regulations had seemed to us to have little relevance to miniature scale model railways. These regulations were developed after a fair ground accident some years prior, and were focused on show ground mobile entertainment devices.

Over the years meetings with OSH officers had tried to develop a working outcome but the few clubs registered continued to have unreasonable difficulties despite the fact that our operations are basically safe and most clubs maintain a safe environment.

4.2 New Safety documentation

In 2000 a new MEANZ executive developed a new strategy to move towards MEANZ becoming a self-managing body as several other modern hobby organisations in New Zealand had done. MEANZ gained OSH support for adopting the UK code for passenger carrying miniature railways, as it generally fitted New Zealand conditions. The MEANZ Manual of Approved Operating Procedures for Miniature Railways has been revised to harmonise it with the New Zealand (UK adopted) MEANZ Guidelines for Passenger Carrying Miniature Railways. As well, MEANZ has developed a MEANZ Administrative Policy (MAP) in preparation for taking a more active role with self-management. OSH has indicated that they are likely to re-draft the Amusement Device Regulations at a later date. MEANZ needs to implement self management as its preferred option to be in a position to promote the exclusion of miniature railways from revised ADR regulations.

MEANZ has agreed with the OSH request that we accept the responsibility of carrying out regular reviews on the various documents which will one day make up our code of practice. A New Zealand code of practice for passenger carrying miniature railways will need to be kept up to date as a living document.

4.3 Future management change

OSH had a policy of encouraging industry groups to develop their own codes of best practice. If MEANZ can demonstrate that we have been responsible in developing and using our own code of practice we are more likely to be allowed to follow the path of self-managing, and be left to monitor our own continued good safety performance. This will not necessarily mean that we are exempt from specific acts and regulations, but we may be able to manage our own affairs while meeting the OSH requirements or have a more appropriate regulation set specifically for miniature railways.

Note: OSH is now WorkSafe and regulations are set by MBIE

2 Org structure

MEANZ is a society made up of model engineering clubs. These clubs elect an executive to lead the association in the best interests of the hobby.

Subgroups maybe appointed by the executive for specific roles when required. The current groups of MEANZ are:

- Executive
- Club Auditors (Competent persons) for amusement device inspections.
- MEANZ Boiler Group – to review and provide advice on ay boiler related queries. This group is made up people selected by the MEANZ executive that have relevant industry qualifications and experience in pressure equipment. This may be made up of MEANZ club members or hired industry experts. The roles will include:
 - Pressure equipment inspector
 - Pressure equipment engineer
 - Model boiler builders.

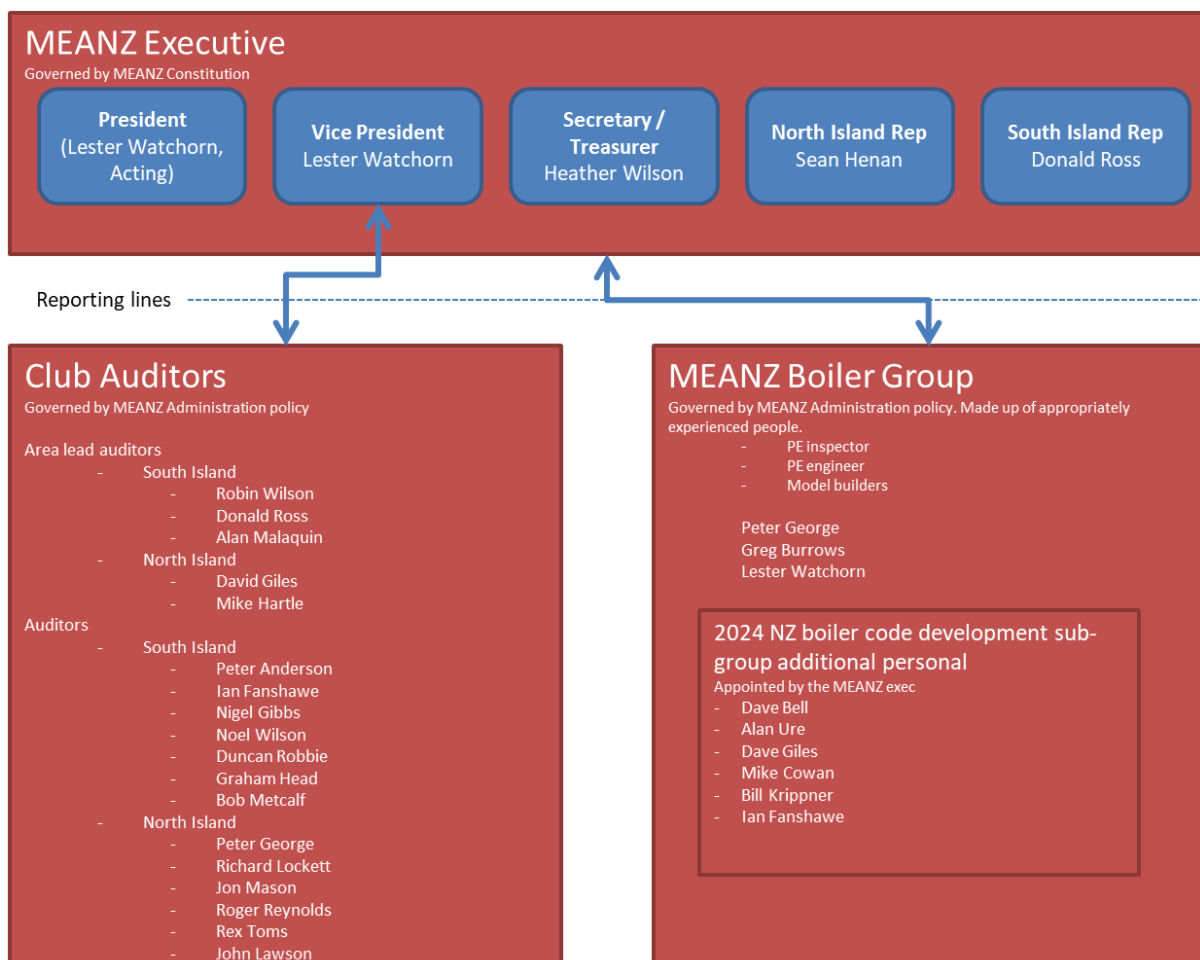


Figure 1: MEANZ Org Chart

2.1 Professional Engineer Quality Assurance Program (formerly MAP 5)

MEANZ Executive shall identify from member clubs, suitably qualified persons for the purposes of consultation for the MEANZ Quality Assurance Program.

Professional Engineers shall be used for the following:

- a. Vetting of all Competent Persons/ Auditors.
- b. Audit any MEANZ Policy Documentation
- c. Review of any WSNZ Accident Investigation Reports.

Note: MEANZ may set up a Special Advisory Group (SAG) of suitably qualified individuals to assist with item c.

3 Membership

3.1 How to apply (formerly Map1)

- 1 Application to join MEANZ is to be done in writing, and be accompanied with the following information (see A-008, membership application form)
 - 1.1 Basic requirements for MEANZ membership
 - 1.2 The club or society must be a registered incorporated society.
 - 1.3 The club must have local safety rules appropriate to their own track and facilities.
 - 1.4 Be able to demonstrate their ability to safely operate their facilities.
 - 1.5 Have records to demonstrate that they have carried out a safety assessment and management review, and kept records of corrective work carried out.
 - 1.6 Are maintaining appropriate record systems. (Membership, Plant & Equipment maintenance and checking, Boilers, and Driver Competency)
 - 1.7 Provide a supporting resolution from Club membership.
 - 1.8 Agree to have an initial MEANZ Safety Audit, and subsequent safety audits as required.
- 2 **MEANZ will hold the list of auditors and the club will arrange** for their pre-membership safety audit to be conducted.
- 3 Subject to the safety audit results MEANZ will provide formal recognition of the application to MEANZ for membership.
- 4 Formal acceptance as a MEANZ member is provided at the biennial convention meeting of MEANZ (every two years) or by a postal ballot as provided for in the MEANZ constitution.
- 5 After acceptance for MEANZ membership, the annual fee for MEANZ membership will apply from the start of the next MEANZ financial year from 1st October.
- 6 MEANZ will check the applicant club incorporation document.
- 7 MEANZ membership dues will be those prevailing at the time of joining MEANZ.

3.2 Cancellation of membership (formerly Map2)

- 1 Examples of circumstances that may justify a membership being cancelled.
 - 1.1 Failure to comply with the current safety guidelines for passenger carrying miniature railways. 2006.
 - 1.2 Failure to comply with, or fulfil obligations, from a MEANZ Safety Audit.

- 1.3 Guilty of conduct inconsistent with the character, welfare or interests of the Association; or failed to abide by the MEANZ Constitution, or bring the good name of the Association into disrepute by any act. (See Section 4E of the MEANZ Constitution.)
 - 1.4 Failure to pay MEANZ membership fees within 4 months. (See Section 4 of MEANZ constitution.)
 - 1.5 Use of MEANZ name for private gain.
 - 1.6 Loss of club incorporation status.
- 2 A written warning will be provided, and an explanation of the circumstances will be sought from the member group.
 - 3 If necessary, the MEANZ executive will call a special meeting, and the offending group given every opportunity to explain its action.
 - 4 The decision whether to continue the membership of any such group shall be decided at the Special General Meeting by a majority of those groups represented.
 - 5 The membership group will be informed in writing of the decision of the meeting.
 - 6 Member clubs or societies may resign from MEANZ at any time, such as when a club ceases to operate or goes into recess.

3.3 Reporting requirements for member club (formerly map 4)

This section identifies the obligations on member clubs to provide information to MEANZ to assist with managing the affairs of the association.

- 1 Clubs shall provide details on the general features of their track to MEANZ including gauges, lengths, raised or ground level track, loading facilities, any track radius or weight limitations, track location, and address. This may include reporting significant changes to track facilities. These details will be entered on the MEANZ web site for easy access by other clubs and overseas visitors.
- 2 Clubs shall provide club postal addresses, and maintain up to date executive names, addresses, phone numbers, and email addresses as required.
- 3 Clubs shall provide the name, address, and contact numbers for the convenor of the boiler committee where applicable, also the Club MEANZ contact person.
- 4 Clubs are to provide a copy of the Worksafe issued amusement device certificate to MEANZ when issued or if requested.
- 5 Clubs are to send MEANZ copies of any significant injury/ accident reports sent to WSNZ so that MEANZ will be in a position to assist as required.
- 6 Assistance from MEANZ should be sought where member clubs consider that they need help in dealing with an outside group, or an WSNZ issue that cannot be resolved at the local level.
- 7 From time to time clubs may be asked for various details such as the total numbers of club members, days facility open etc.
- 8 Serious boiler incidents shall be reported to MEANZ as a further aid to boiler safety management.

- 9 Clubs will provide MEANZ with a list of all locomotives and trolleys. This is a detailed list of all locos and ride-on wagons (private and club owned) used to convey the public.

4 Requirements for clubs operating a miniature railway (formerly Map3)

At present MEANZ member clubs are required to have their facilities registered with WorkSafeNZ under the Amended 1978 Amusement Device Regulations and have an Amusement Device operation certificate. They are also required to have a Permit to Operate from their local or regional council.

It is hoped that these regulations will be replaced in the future. At some time it is expected that MEANZ may be asked to take over the responsibility for monitoring and approving MEANZ member groups for operating miniature railways which carry passengers. These policies are prepared for the self-management by MEANZ of member clubs.

- 1 Clubs are required to request that audits of their operating facilities be carried out for the following reasons:
 - 1.1 When applying to join MEANZ.
 - 1.2 When major changes have been made to the clubs operating facility.
 - 1.3 When requested by MEANZ due to safety concerns
 - 1.4 They are renewing their ADR Registration and require a pre-application Audit/Inspection.
- 2 The club may select from the pool of MEANZ Auditors an Auditor of their choice. **The club** will arrange for the safety audit to be carried out by this selected Auditor(s). The audit will be carried out by the approved auditor(s) with assistance from a nominated club person.
- 3 A comprehensive audit is to be conducted using the MEANZ Safety Audit Check List (A-003 Latest version). This Audit, once completed, is to be passed to the relevant Lead Auditor for moderation then submitted to the **MEANZ Secretary to be included in the club's application for Amusement Device Certificate.**
- 4 If during the course of the Audit, urgent critical safety attention is required, the club will be advised and a halt on operations be imposed on the club until corrective measures have been applied and the auditor verifies the corrective action taken.
- 5 The MEANZ Secretary will forward the Lead Auditors Moderation Report and a copy of the Audit Check List to the club.
- 6 Safety Audits are to be conducted 1 month prior to the expiry of the clubs amusement device certificate, but not longer than every 2 years, subject to the various conditions listed above in section 1 (1.1 – 1.4).

5 Miniature railway audits

5.1 MEANZ Safety Auditors' Inspection Duties (formerly Map6)

Safety Audits are carried out to monitor the compliance of member clubs with the requirements of the MEANZ collective safety management documents for passenger carrying miniature railways. The audits also look at all aspects of activities carried out around the miniature railway facility and maintenance activities. This policy identifies the general scope of the audits and duties of the Safety Auditors. (See audit organisation diagram and the guidelines to auditors.) The auditors will also keep in mind the general WSNZ safety requirements.

1. Clubs will be required to arrange their own safety Audit. These Audits will be conducted using a minimum of one (1) auditor, selected by the club, from the pool of MEANZ approved auditors. (An Auditor is not permitted to audit his home club). Safety Audits may be requested by MEANZ, or at the clubs own request. (See MAP 3, Section 1- d)
2. The Safety Audits will cover the following equipment, activities, and management systems associated with all the member clubs activities.
 - 2.1 General inspection of site and activities
 - 2.2 Civil ground works
 - 2.3 Structures such as tunnels, bridges, buildings
 - 2.4 Track facilities such as rail, turntable, hoists, points
 - 2.5 All Club and Privately Owned ride-on wagons used to convey the public.
 - 2.6 All Club and Privately Owned locomotives, traction engines, used to convey the public.
 - 2.7 Review of club documentation such as: operation records, maintenance records, accident records, hazard assessment and management reports, driver training records, and driver qualification records, boiler test and inspection records, public management training and procedures, train running operations training, ride-on wagon maintenance records, track maintenance records. The audit needs to check that the documentation exists, it is up to date, and it is used, and reviewed periodically.
 - 2.8 Emergency response plans. First aid, Dr, Ambulance, Fire, Police.
 - 2.9 Signals, signage, and controls
 - 2.10 Any other thing that is in the updated audit.
3. The auditors will use a checklist of key items for the Safety Audit, (A-003) however the auditors will be expected to prepare a written overall summary report. This report will make conclusions on the level of compliance with accepted good practice, and identify any critical hazards that need urgent attention, or lower risk areas needing less urgent attention.
4. The report should review such items as maximum track speed for specific areas and any limitations on loading weights. The report should also comment on the overall acceptability of the audit results.
5. The Club being audited will nominate a knowledgeable member of their club to work with the accredited Safety Auditor(s). This person will be familiar with club documentation and record systems and will arrange for necessary records to be available at the time of the audit. This person can also be the club's own Certified Auditor but can only act as a club member, not an additional Auditor.
6. The Safety Audit report on completion, is to be signed by a member of the executive of the member club being audited as well as the auditor(s) and forwarded to the appropriate MEANZ Lead Auditor for moderation.
7. A follow up audit/ check will be required to confirm that the urgent/ required corrective work on non compliances has been carried out. This may be achieved by a signed letter and

accompanying photos or copies of the corrected problem.

8. MEANZ will confirm to the member club the conclusion of the Lead Auditors Report.

5.2 MEANZ Auditor/ Competent Person– (formerly Map 10)

MEANZ Competent Person/Auditor, fills the role and qualification of a Competent Person as defined by the amusement device regulations. They are able to inspect and sign off for clubs (not their own) ADR Registration Form 2A.

This section provides the procedures to be followed for establishing the Roles of the MEANZ Competent Person/Auditor. It also identifies the skill sets required for candidates. “Competent Person” is as defined in the Amended ADR and modified by the Interpretation and Application Document.

MEANZ Competent Person, (CP) means a person with at least 3 years of previous or current membership of a New Zealand model engineering hobby club, and who:

- (i) is not a current member of the club whose ADR Certification is being examined; and
- (ii) has a recognised engineering qualification at certificate, diploma, or degree level in mechanical, electrical or automotive engineering; or
- (iii) has a formal endorsement as a safety auditor under a safety auditing system administered by another collective organisation of model engineering hobby clubs in New Zealand.

1. The prime duty of the Competent Person, is to carry out the inspection every 2 years as required under prevailing Amusement Device Regulations for MEANZ clubs and to sign the required certificate Form 2A to accompany the club Application for Registration.
2. Suitable candidates for the role of Competent Person may be made by MEANZ affiliated clubs by providing a CV to the MEANZ Executive or Lead Auditors for consideration.
3. **Profile of a MEANZ Competent Person.**
 - 3.1 Knowledge of the design, construction and operation of model locomotives and ride-on wagons of all types.
 - 3.2 Experience in operating and managing miniature passenger railways.
 - 3.3 Knowledge and experience of workshop practice and other branches of model engineering. (Academic and Trade qualifications to be taken into account in categories 1-3)
 - 3.4 Experience with Club administration in several positions.
 - 3.5 Wide knowledge of other clubs.
 - 3.6 Must have people skills and diplomacy to get club co-operation and information.
 - 3.7 Ability to conduct an impartial inspection and to prepare a report if required.
 - 3.8 Knowledge of MEANZ guidelines and industry standards.
 - 3.9 Knowledge of applicable WSNZ regulations.
 - 3.10 Knowledge of MEANZ documentation on safety, administration, operating and auditing principles.
 - 3.11 Able to work as a member of a team of two or three.
 - 3.12 Is recognised as a Competent Person by WorksafeNZ.
 - 3.13 Is able to complete the ADR Certificate of Examination form 2a.
4. The CP, on acceptance, will receive orientation, information and training as required, from MEANZ, regarding the duties responsibilities, and procedures for inspections, and reporting.
5. A CP may resign from the position at any time by providing written notification to the MEANZ executive.
6. MEANZ may withdraw support for, or replace a CP as required. This will be carried out in writing from MEANZ executive.

7. The CP will be inspecting and checking that the equipment requirements as stated by the Amended ADR's, also complies with MEANZ Code of Practice.
8. MEANZ will forward to WorkSafeNZ, a formal list of all accepted CP's for their records.

5.3 Boiler inspection and testing procedures audit duties. Formerly Map 7

Boiler inspection and testing is carried out as required by the New Zealand regulations. For most model engines, this will be by the use of the AMBSC codes Parts 1 and 2 to ensure that boilers are fabricated, tested and re-tested at periods as specified in the codes. The aim is to ensure that only compliant boilers are used on member club tracks. The AMBSC codes specify what must be done and the competency of the inspectors. The Safety Audit is to confirm that the AMBSC code has been followed, and that the test equipment exists and that records are being kept. Note that not all member clubs have a boiler committee. Where the boiler committee of another club is used to test and inspect boilers, the auditor will need to confirm the test results and records held at the other club.

- 1 Check that the club boiler committee members are appropriately qualified and experienced. (This does not exclude new members being trained and or gaining experience with boiler testing and inspection).
- 2 Check that the duties of the boiler committee are consistent with the AMBSC codes 1 and 2.
- 3 Check that test and inspection equipment exists to meet the AMBSC code requirements.
- 4 Review the inspection and test records, and examples of boiler test certificates issued.
- 5 Check the Club procedures and records for checking the boiler certificates of visiting steam locomotives or vehicles / engines.
- 6 The results of this audit will be added to the Safety audit to provide a comprehensive overview of the safety management of the club in question.

If there are concerns regarding technical aspects of the clubs boilers or inspection methods. These are to be directed to the MEANZ Boiler group and Secretary.

6 Standard forms (formerly Map8)

The MEANZ standard forms will eventually be available on the MEANZ web site for easy access by all member clubs. The forms provide a uniform style for collecting and providing information and carrying out audits.

The following standard forms are available:

- A-008 Application form for clubs, groups. or Societies wishing to join MEANZ.
- O-002 WorksafeNZ Accident Report Form
- A-003 MEANZ Safety audit checklist

If the standard forms are not available on the MEANZ Webpage for whatever reason they will be available from the MEANZ secretary.

7 Continuous improvement (formerly Map9)

MEANZ has agreed with WS NZ, it will periodically review its key under-pinning safety documents to ensure that they continue to be relevant and appropriate for member club operations.

The key documents in question are the 'MEANZ Guidelines for Passenger Carrying Miniature Railways', and the 'MEANZ Manual of Operating Procedures for Miniature Railways'.

The AMBSC Boiler codes have their own review committee in Australia.

1. Reviews of the key documents will be carried out every 2 years, or earlier if it is deemed that urgent changes are required.
2. Member clubs will be asked to consider the key documents under review and to send remits with explanations for proposed changes to MEANZ.
3. Where necessary, technical experts will be co-opted to the MEANZ review group to assist with the review. (MAP 5 Note: SAG)
4. MEANZ Executive to approve the final draft version of key documents.
5. WSNZ may be invited to comment on the proposed changes.
6. The final draft will be sent to member clubs before the revised document is issued. Ratification of the revised document may be made by majority vote at a biennial conference meeting or by postal vote.
7. After ratification the revised document will be issued to member clubs and placed on the MEANZ web site.
8. A copy of the revised document is to be sent to WSNZ.

Note: Member club safety rules / operating procedures that are site specific also need to be reviewed on a regular basis as they are key documents for the member club. The same frequency for review of two years or less is suggested for these documents. However, the review process is carried out internally within the member club, with records kept of the changes made.

Member clubs are advised to carry out hazard evaluations on all their activities at least once every two years, and this should be carried out in advance of the review of the club safety rules / operating procedures.