



TRACK OPERATION MANUAL

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Official AIDKA Club Reference Guide for Race Meeting Management

Compiled by AIDKA

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Australian Independent Dirt Kart Association

CONTENTS

1)	Track Inspectors	Page 4
2)	Track Inspections	Page 4
3)	Track Licence	Page 4
4)	Track Maintenance	Page 5
5)	Track Layout	Page 5
6)	Track Requirements	Page 5
7)	Safety Barriers	Page 6
8)	Officials Barriers	Page 6
9)	Pit Area	Page 7
10)	Fencing Requirements	Page 7
11)	Amenities	Page 7
12)	First Aid Requirements	Page 8
13)	Service Vehicle Area	Page 8
14)	Control Towers	Page 9
15)	Lighting	Page 9
16)	Changes to Facilities	Page 10
17)	Minimum Meeting Standards	Page 10
18)	Scales	Page 11
19)	Signage	Page 12
20)	Fire Extinguisher Guide	Page 14
21)	Portable Electrical Equipment	Page 16
22)	Hazard Spotting and Reporting	Page 17

1) SAFETY STANDARDS FOR TRACKS

MINIMUM TRACK SAFETY REQUIREMENTS

The following are the minimum requirements of AIDKA for Dirt Kart Tracks in Australia. The AIDKA NTSO and National Executive reserve the right to vary these requirements at any time in the interest of safety.

1) Track Inspectors: Each club shall appoint a club Track Inspector to be responsible for track safety. These club track inspectors are to liaise with the NTSO to ensure the track is maintained in a safe and satisfactory condition. The club track inspector has the right to stop racing should they consider the track needs repairs to ensure the surface is maintained in a safe and satisfactory condition.

The NTSO has the right to approach the club track inspector at any time, if they feel an item of safety needs attention. If the NTSO is not satisfied that the club track inspector has endeavored to correct the problem, then they must approach the club executive and advise them of the problem. If the problem is still not addressed, then the NTSO will advise the AIDKA Secretary to notify the club in writing that they have a given timeframe to have the problem corrected. During this timeframe the track may be suspended from holding an AIDKA affiliated event. If the problem is still not corrected after the allowed timeframe, then the NTSO has the power to close the track to all AIDKA affiliated events. The NTSO must notify the AIDKA Secretary to advise the club of this in writing.

2) Track Inspections: Tracks will be assessed by the NTSO prior to Track License being issued. Physical inspections will be required following any track alterations, minimum 3 months prior to a title event or at the discretion of the NTSO or National Executive. Each track will be assessed on their merits and the NTSO to assist clubs with any necessary improvements over a reasonable period of time to the minimum safety standard.

3) Track Licence: A current AIDKA track license along with any other required license must be displayed in the clubrooms in a prominent location. An AIDKA track license will run for 12 months from 1st February each year and will only be issued provided the following have occurred.

- a) Affiliation and Track License fees have been paid
- b) Club Track Self-Assessment has been performed and approved by NTSO.

4) Track Maintenance: It is the Chief Stewards responsibility to check that the club track inspector has the track in a safe, satisfactory condition prior to the start of, and during, a race meeting. If at any time they consider the track is not in a safe, satisfactory condition, they must stop all racing, notify the club track inspector and ensure the track is returned to a safe, satisfactory condition.

5) Track Layout: The track is to be a minimum of 250m and a recommended maximum of 800m in length with a minimum track surface of 8m throughout. It is recommended that straights and high-speed corners be made wider wherever practical, to allow karts more room to take evasive action and continue racing. Sections of track are to be no closer than 4m to itself. Sections that are closer than 5m to itself must have an energy absorbing barrier erected and maintained. The track shall have NO off camber (negative camber) sections.

6) Track Requirements: All tracks must have the following;

- a) A minimum width of 8m at any location,
- b) High speed straights or corners must have either a minimum width of 10m or a loose catch trap (ie; sand) consisting of minimum 1500mm in width and 150mm in depth before the energy absorbing barrier. The loose catch trap must be maintained at the same elevation as the racing surface. There shall be no off camber between the edge of the racing surface and edge of the energy absorbing barrier.
- c) Where the racing surface is not bordered by a loose catch trap these run off areas must be maintained in a clean and compacted condition that present an even surface, free of any loose stones and debris.
- d) Inside of all corners must be defined by a loose earth reel consisting of a maximum height of 200mm. The earth reels must be maintained in a loose state so as to prevent karts from riding front wheels around on top.
- e) Must be maintained in a safe and satisfactory condition so as to provide a consistent even racing surface for all competitors.
- f) Must have identification for the end of the first corner for the purpose of restarts. This identification must be defined by a cone on the infield and an obvious marker on the outside of the track and announced at the drivers briefing.
- g) Must have as a minimum 2 petrol type fire extinguishers located inside the race arena. One located near the starting area and the other located within easy access on the infield.

- h) All corners may have a maximum of 5 % positive banking from inside to adjacent outside of full track. This is to allow full use of track and stop single line racing.
 - i) Any track requirements outside these guidelines must have approval from the NTSO.
- 7) Safety Barriers: Must be Energy absorbing barriers to protect kart and driver from serious injury as per options below:
- a) Car tyres may be used. The tyres shall be of consistent size to ensure even stacking. Tyres must be fixed together up and down, all fixings to be internal, and may be fixed side to side in lots of four (4) if track inspector deems necessary. The tyre barrier must be of a minimum height of 600mm. Tyres to be kept free of earth and debris and not placed hard up against any object. No tyres shall be placed over a solid object, (ie over a pole, or post). Any solid object to have a continuous barrier around it. At all times there shall be a minimum 300mm separation gap between barrier & fixed objects.
 - b) Plastic Barrels may be used around track perimeter only. The barrels shall be parallel sided plastic drums with a minimum diameter of 600mm and a minimum height of 900mm. The barrels must be fixed together near top and bottom in groups of 5 (unless rubber belting is placed along tyres, upon which minimum fixing together of barrels is required). Barrels to be kept empty and must be at track level, not partly buried. Barrels must undergo continual inspections to ensure plastic is not brittle and will not splinter upon impact.
 - c) Rubber Belting may be used to provide a continual barrier along track side of tyres or barrels. The belting must be fixed to the tyres or barrels with countersunk screws or dome head 6mm bolts with washers either side to top of barrier every third tyre or barrel. Belting to be at Track Inspectors discretion in consultation with the club. Belting thickness to be a minimum of 5mm and a maximum thickness of 15mm.
 - d) Other energy absorbing barriers may be used subject to prior approval by the NTSO.
- 8) Officials Barrier: Must be constructed with tyres. The barrier is to be open on one side only (preferably infield side).

9) Pit Area:

- a) Pit must be clearly defined and of sufficient size to cater for a major race meeting. Pit area must be fenced so as to prevent unauthorised access to the general public. "AIDKA licence holders only" access signs must be prominently displayed at each and every access point. A minimum of 2 petrol type fire extinguishers must be located in pit area. One near the In & Out grids and one centrally located in pits. Fire Extinguisher location signs to be placed for ease of locating should they be required.
- b) Out-grid must be of sufficient size to cater for 2 grids of 20 karts each. Must have gates on front that are closed during racing. Gates are to be recessed back from race surface.
- c) In-grid must be of sufficient size to cater for up to 2 fields of 20 karts (40 in total). Must have gates on back to prevent karts entering pit area whilst still under power. Gates must be closed during racing.

10) Fencing Requirements:

- a) Track Safety Fences: Where fence is closer than 5m to track racing surface, or on high risk areas as directed by NTSO, fence is to be minimum of 1.8m high chain mesh with wire gauge of minimum 2.5mm. Chain mesh to be placed on track side of posts with maximum post spacing of 4.5m. Remainder of track safety fencing is to be 1.2m high of wire mesh (not single strand wires) secured to posts maximum 3m apart. No metal star pickets to be used on track safety fencing.
- b) Pit Area Fences: Can be any style of fencing that is a minimum of 900mm high and is of sufficient capacity to prevent people entering areas unauthorised. Where Pit area fence adjoins spectator areas, there needs to be another fence or barrier minimum 1m away to prevent people smoking and leaning over fence near flammable liquids.
- c) Spectator Safety Fences: All spectator areas to be adequately fenced off to keep spectators in those areas and away from racing or pit areas. Spectator fences that are not close to Track safety fences can be any style of fencing that is a minimum of 900mm high and of sufficient capacity to prevent people entering areas unauthorised.

- 11) Amenities: Toilet and canteen facilities to comply with local health Regulations. All canteen facilities must have a minimum of 1 fire blanket and fire extinguisher mounted to the wall in an easily accessible location. Canteens must be fitted with RCD safety switches.

- 12) First Aid Requirements: All tracks must have designated area for an Ambulance to access the track and at least approved minimum standard of 1st Aid equipment and First Aid room/treatment room onsite. First aid facilities are a part of club track licence requirements and will be inspected at least annually when track inspections are completed.

AIDKA FIRST AID ROOM MINIMUM REQUIREMENTS:

- Separate room, lined with light 2.4mtr x 2.4mtr
- Bed with mattress and protector sheet
- 20litres of water and access to hot water
- Rubbish bin with liner
- Chairs x 2
- ID sign on door
- Current Certificates of all First Aiders displayed on wall
- Adequate First Aid kit
- Annual inspection of First Aid Room and Kits.

AIDKA FIRST AID ROOM PREFERRED REQUIREMENTS:

- Separate room with adequate lighting 3mtr x 3.6mtr
- Fan for cooling, and heating (small blow heater)
- Medical inspection light
- Medical examination bed
- Running Hot and Cold Water
- Privacy Screen
- Approved Sharps Container
- Rubbish Bin with liner
- Chairs x 4
- ID sign on door
- Current Certificates of all First Aiders displayed on wall
- Workplace First Aid kit (wall mounted) and Portable First Aid Kit
- Annual inspection of First Aid Room
- Quarterly checks of all First Aid Kits (supplies)

FIRST AID ROOMS WILL BE THE RESPONSIBILITY OF CLUBS TO MAINTAIN.

- 13) Service Vehicle Area: All tracks must have designated area for parking and storage of track maintenance equipment and vehicles outside race arena and spectator area during racing.

- 14) Control Towers: IT IS HIGHLY RECOMMENDED THAT all clubs have as a minimum one of the following FOR ALL BLUE RIBBON EVENTS;
- a) One control tower with two rooms. One room for lap scoring and transponders, one room for Stewarding and driver/crew reprimanding.
 - b) Two control towers. One room for lap scoring and transponders, another room for Stewarding and driver/crew reprimanding.

This is to stop lap scorers and transponder operators from being distracted and having to deal with Chief Steward and drivers/crew during reprimanding. All control towers must be adequately covered, closed and ventilated with access by way of permanent structure (i.e. stairs).

15) Lighting Requirements:

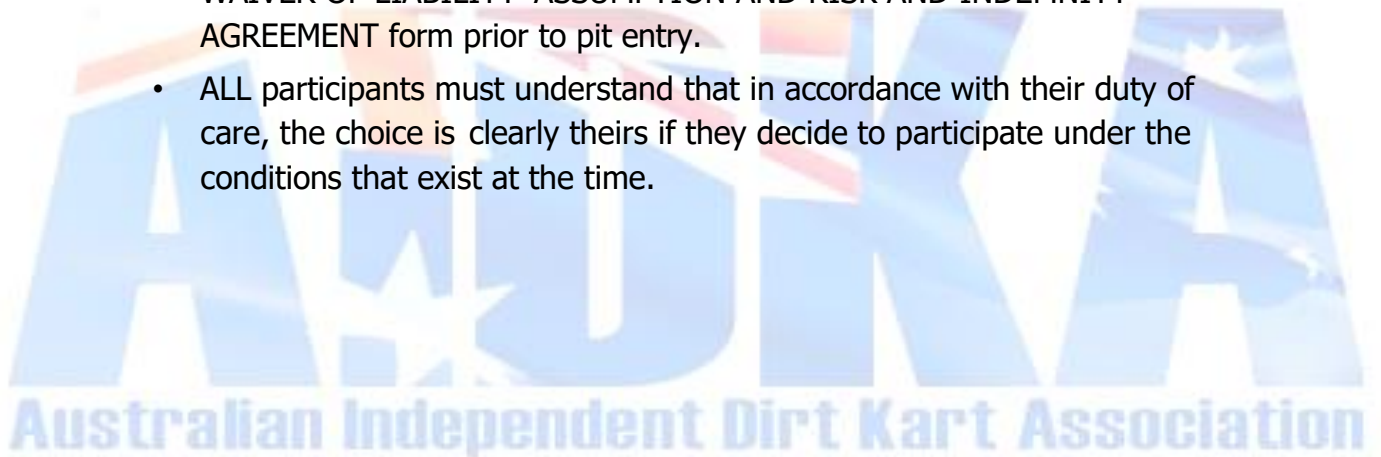
- a) Grid Lighting: Must be such that no shadows are cast which may be a danger to competitors/pit crews whilst starting karts.
- b) Paddock/Pit Lighting: Must be adequate enough for competitors/pit crew to move around the paddock without endangering themselves by objects hidden in shadows.
- c) Track Lighting:
 - i. No point of the racing circuit (track) will measure less than 20 Lux.
 - ii. Track lighting is to be measured at approx. 750mm above track surface on the centre line of the track.
 - iii. The area on the track used to record kart numbers will measure no less than 38 Lux.
 - iv. The starting area will measure no less than 38 Lux.
 - v. No lighting shall cause glare to Drivers or Officials.
 - vi. Any circuit used under lights must have the track edges and wind rows be maintained at a high standard and can be clearly defined during night racing.
 - vii. All new track lighting be designed by a qualified person.
- d) Amenities and Canteen Areas Lighting: Must be adequate enough for visitors, families, competitors, and pit crew to move around these areas without endangering themselves by objects hidden in shadows.

16) Changes to Facilities

All clubs are required to notify the NTSO via the AIDKA Secretary in writing prior to any changes being made to track, fencing or facilities that might have an impact upon safety. The changes will then be assessed and the club notified of the result.

17) Minimum Meeting Standards

- Minimum of 4 fire extinguishers must be present, currently tagged and appropriately signed (Refer to point 20, page 13).
- Minimum of two (2) qualified senior first aid personnel must be onsite and readily available for all club meetings.
- A designated person e.g. Steward to be clearly in control of all activities on the day.
- ALL participants, including officials and crews to sign a RELEASE AND WAIVER OF LIABILITY ASSUMPTION AND RISK AND INDEMNITY AGREEMENT form prior to pit entry.
- ALL participants must understand that in accordance with their duty of care, the choice is clearly theirs if they decide to participate under the conditions that exist at the time.

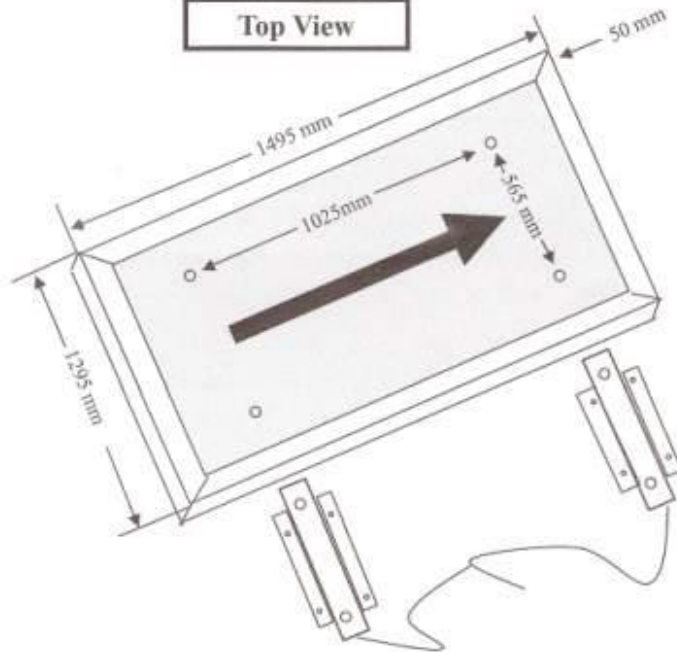


- 18) Scales: Scales must be AIDKA approved and shall be checked for calibration, which is mandatory for Titles, at or around the time of the annual track inspection. Scales to be calibrated every 2 years.
 The scales must comply with Rule 10.2 of the AIDKA Rule Book (including being bolted to the cement pad). Certificate of calibration must be on display.



Recommended AIDKA Standard Specifications for Weigh Platform

Top View

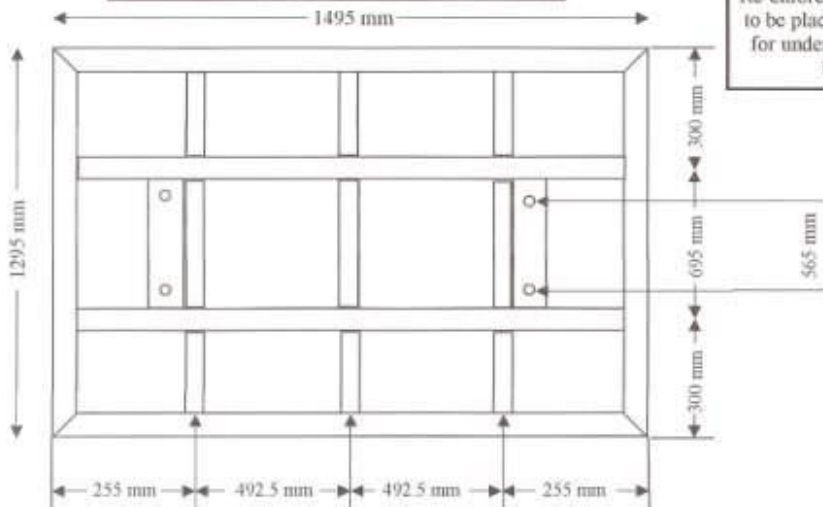


Size
 Length 1495mm
 Width 1295 mm
 Mounted on 50 x 50mm Square tubing frame with 50 x 50mm square tube re-enforce frame work
 Platform to be of 2mm minimum aluminium chequered plate or similar type material.
 Arrow to be painted on platform to indicate weighing to be one way only.

Weighing Devices
 Platform Weighing Devices are to be mounted on a cement slab and bolted down to the slab, and the platform to be bolted to the weighing devices.

Recommended Material
 The size of the material recommended is for stability and strength. Other than the use of square tubing, then 50 x 50 x 1.5mm steel angle is recommended. Re-enforce 4 to 6 mm flat plate to be place for re-enforcement for underside of platform for bolted area.

Under Side View of Platform



19) Signage

TO BE PROMINENTLY DISPLAYED AT ALL ENTRANCES TO THE FACILITY.

If you wish to receive the files to have these signs printed, please contact secretary@aidka.com.au

Sign 1 - Main Entrance Sign (Minimum Size 700mm x 400mm)

IMPORTANT NOTICE

All personnel entering this facility are reminded that Motor Racing is dangerous and accidents can happen. All care is taken to protect you but you are warned that there is a possibility of an accident causing injury, death, or property damage. By entering this facility, you hereby acknowledge that the entry to this Dirt Kart Complex has a degree of danger and the promoter, clubs, corporations, organisations and persons having any connection with the promoting, organising and conduct of the event shall have no liability except with regard to any rights you may have arising under the Trade Practices Act 1974.

Vehicles are permitted to enter and park on the condition that the owners and the occupiers of the facility are not under any liability whether contract or in tort and whether for negligence or as an occupier or on any other basis or for any cause of action, for loss of or damage to, the vehicle or its contents no matter how or where such may be caused.



Sign 2 - Pit Entry Sign (Minimum Size 600mm x 600mm)



PIT ENTRY RULES

Fully enclosed shoes must be worn at all times.

NO smoking and **NO** alcohol in pits.

NO naked flames.



Pit entry bands can be purchased at canteen



**PIT ENTRY
WRIST BANDS
MUST BE WORN
AT ALL TIMES
NO EXCEPTIONS**

ENTRY CONDITIONS FOR UNDER 5 YEARS OF AGE & OVER 90 YEARS OF AGE

Please be aware that you are **NOT** covered by any AIDKA insurance.
Wristbands must be worn at all times.

Sign 3 – Red Zone (Minimum Size 400mm x 400mm)



Sign 4 – Vehicle Entry / Exit (Minimum Size 450mm x 150mm)



Sign 5 – Safety Equipment (Minimum Size 400mm x 250mm)



Sign 6 – Authorised Access (Minimum Size 200mm x 100mm)



SIGNAGE DIMENSIONS

1. Main Entrance sign 700mm x 400mm
2. Pit Entry Sign 600mm x 600mm
3. Red Zone sign 400mm x 400mm
4. Vehicle Entry sign 450mm x 150mm
5. Safety Equipment sign 400mm x 250mm
6. Authorised Access sign 200mm x 100mm

These are the minimum sizes, club may choose to have these larger or modified to suit existing signage areas. The wording can not be altered.

Signage to be erected 1.8m approx. above ground level

20) Fire Extinguisher Guide

How often do I need fire extinguisher maintenance?

According to the AS1851, fire extinguisher test and refill services should occur at the following intervals:

- All portable and wheeled fire extinguishers need to be tested every 6 months.
- Pressure testing and refills should be carried out at least once every 5 years.

Records of the tests and their dates should be kept on the metal tag attached to each extinguisher.

Portable Fire Extinguisher Guide

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 E technical@fpaa.com.au
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Type of Fire, Class and Suitability

Pre 1997	Current	Extinguishing Agent	Type of Fire, Class and Suitability					Comments	D Metal Fires
			A Wood Paper Plastic	B Flammable & Combustible Liquids	C Flammable Gases	E Electrically Energised Equipment	F Cooking Oils and Fats		
		Water	✓	✗	✗	✗	✗	Dangerous if used on flammable liquid, energised electrical equipment and cooking oil/fat fires	Use only special purpose extinguishers and seek expert advice.
		Wet Chemical	✓	✗	✗	✗	✓	Dangerous if used on energised electrical equipment	
		Foam*	✓	✓	✗	✗	LIMITED	Dangerous if used on energised electrical equipment	
		Powder	(ABE) ✓	✓	✓	✓	✗	Look carefully at the extinguisher to determine if it is a BE or ABE unit as the capability is different	
			(BE) ✗	✓	✓	✓	✓		
		Carbon Dioxide	LIMITED	LIMITED	✗	✓	✗	Not suitable for outdoor use or smouldering deep seated A Class Fires	
		Vaporising Liquid	✓	LIMITED	LIMITED	✓	✗	Check the characteristics of the specific extinguishing agent. 5 Yearly servicing must be done by ODS & SGG licenced persons.	
		Fire Blanket	LIMITED*	LIMITED	✗	✗	✓	* Fire Blankets may be used as a thermal barrier against radiated heat and to control a fire in clothes being worn by a person.	

LEGEND ✓ = the class or classes in which agent is most effective ✗ = not recommend for these class of fires
 LIMITED = indicates that the Extinguisher is not the agent of choice for the class of fire, but it may have a limited extinguishing capability
 © FPA Australia ABN 30 005 366 576
 For more information go to: www.fpaa.com.au * Solvents such as alcohol or acetone mix with water and therefore require special foam



You should know the **PASS**-word for using portable fire extinguisher

- P**ull the pin or release any other locking device
- A**im low, pointing the extinguisher nozzle at the base of the fire
- S**queeze the handle to release the extinguishing agent
- S**weep from side to side at the base of the fire until the fire is extinguished

Remember, fire extinguishers are for small fires only - don't endanger yourself when using them.
 If you have used an extinguisher you should arrange to have it recharged immediately.

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Portable Fire Extinguisher Guide

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Printed in the interest of protecting life and property from fire

21) Portable Electrical Equipment

Introduction

It is important to ensure that all equipment used on site by track operators, employees, volunteers and contractors is safe to operate, operated safely and is appropriately maintained.

All tracks need to have procedures that address the following requirements:

Inspection & Testing

Portable electrical equipment is covered by Australian Standard AS/NZS 3760. The standard defines the requirements of routine inspection and testing of electrical equipment, including portable equipment, leads and cables.

The standard requires that all electrical equipment is tested:

- prior to initial use
- after servicing and repairs; and
- periodically from then on*

* Fixed items not subject to constant flexing, such as desktop computer equipment, are to be tested every five years after initial testing. Movable objects (non-cordless) eg drills and leads, are to be tested every twelve months.

The standard does not require the employment of an electrician to test all electrical equipment. It is a requirement that electrical items, (apart from safety cut-out switches, also called Residual Current Devices (RCDs)) can be tested by **a competent person**. Given that the testing of safety switches requires considerable electrical knowledge, this procedure must be carried out by an 'A' grade electrician.

A competent person is one who *'the person in charge of the premises ensures has acquired through training, qualification, experience or a combination of these, the knowledge and skill enabling that person to perform the task required correctly.'* Consequently, this person can be an 'A' grade electrician, or a person trained specifically for the task of electrical safety testing

Records

A recording system with dates and results of testing needs to be in place. Items are to be tagged at time of testing. Tags are to be made of a non-metallic and durable material and be non-reusable. They should contain the date of testing and the name of the person or company that did the testing. Tags are readily available from safety equipment suppliers.

Key Points - Portable Electrical Equipment:

Always

- Test and tag electrical leads, tools and equipment prior to initial use then every twelve months. Fixed items, eg computers, every five years. Safety switches every two years.
- Visually inspect electrical leads, tools and equipment for damage before each use.
- Use safety switches (RCDs) when using electrical tools and equipment.
- Use competent people to repair damaged electrical leads, tools and equipment.
- Consider installing RCDs at switchboards or selected power points.
- Keep cable trays free of accumulations of combustibles.

Never

- Use damaged electrical leads, tools and equipment.
- Use electrical leads, tools and equipment in damp or wet conditions unless they are specially designed for use in those conditions.
- Place electrical leads in areas where they may be damaged (e.g. on the ground, through doorways and over sharp edges).
- Overload electrical circuits.
- Use modified electrical tools and equipment.

22) Hazard Spotting and Reporting

What is a Hazard?

A hazard is something that has the potential to cause harm. This harm can affect people, property and processes as follows:

- **People** Injury, illness, death, psychological trauma
- **Property** Damage, contamination/environmental, theft and wastage
- **Processes** Work disruption and/or interruption to a race meeting.

Why Report Hazards

For every serious injury/accident or death in the workplace there is usually a history of 'warning signs' or near hits that were ignored. These 'warning signs' or hazards should be rectified before the accident happens.

Also, conditions at sites can change daily (eg wet weather). The changes have the potential to introduce new hazards.

Responsibilities

It is the responsibility of clubs to assess and provide control methods for the hazards that have been identified. Once hazards have been identified, assess the level of risk. This will determine the priority assigned to its elimination or control.

All identified hazards should be documented.

How to Spot Hazards

- Review previous accident reports, injury registers to identify any problem areas.
- Conduct regular housekeeping and general working environment inspections.
- Ask "what if" questions:

1. What if that fell, burst or leaked?
2. What if someone tripped over that?
3. What if someone unauthorised enters the area?
4. What if someone does that job when they are tired, or rushed?
5. What if someone touched/sniffed that?

Look at everything including out of the way storage car parks, water ways, banks etc

Hazard Reporting Process

A hazard reporting process needs to include:

- A Hazard Identification Report that includes a Hazardous Assessment section
- Accessibility of the form
- Form that is easy to use
- Corrective action follow up of reported hazards.

The aim of a Hazard Identification Report (overleaf) is to encourage volunteers to spot and record hazards. Therefore, the Hazard Identification Report needs to be prominently displayed readily accessible.

Training

In order to be successful, volunteers need to be trained. All training should be recorded.

Risk Assessment Definition

Risk Assessment is the process of determining the 'level of risk' associated with a hazard by examining the probability of consequences occurring, and the severity of those possible consequences.

Following a risk assessment a Risk Rating can be assigned which will reflect the priority for corrective action and the intensity for hazard control required. The assessment should be completed by the clubs in consultation with volunteers in order to determine the risk of injury, illness, and property or equipment damage occurring from the identified hazard.

In some circumstances in order to complete this risk matrix, scientific testing or professional advice may be required in order to quantify the hazard, ie environmental or noise assessments etc.

Hierarchy of Control

Having identified and assessed track hazards, you need to implement a strategy to eliminate or reduce the exposure risk.

The Hierarchy of Control listing below will help you decide the best way to control risks. This identifies control strategies from the most effective to the least effective strategy. You must consider possible control strategies in the order specified below.

Please note that not all strategies will be practicable and more than one type of strategy may be needed to achieve the best protection. For example, use of hazardous substances may require the ventilation, Personal Protective Equipment, or a review of the procedures and training.

Hierarchy of Control Includes the Following Options

Elimination – Completely remove the hazard.

Substitution – Replace with a safer alternative.

Engineering – The use of engineering modification to reduce the hazard.

Administrative – OHS policies, safe work procedures, training etc.

PPE – Provide Personal Protective clothing and equipment.