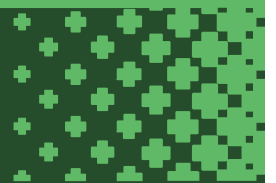





# **Walkerville All Cars Club**

## EV SAFETY PLAN





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This document serves as the official Electric Vehicle (EV) Safety Plan for Walkerville All Cars Club's (WACC) events held at the WACC owned venue Walky Park. As EVs become increasingly popular, it is important to ensure that proper safety protocols are in place for events and competitions. The Walkerville All Cars Club recognizes the importance of safety for its participants and spectators, and this guide aims to provide comprehensive information on the safety systems and protocols that must be implemented during EV events. With the guidance provided in this document, the Walkerville All Cars Club can ensure that all EV events held at Walky Park are conducted safely and successfully.

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- This document is designed to be read in conjunctions with the:

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    - FIA requirements for an Electrically Powered Vehicle in Appendix J, Articles 251 and 253 to the Code at [www.fia.com](http://www.fia.com)
    - Motorsport Australia Electric Vehicle Appendix - Standing Regulations - Information for Event Organizers and Officials at [motorsport.org.au](http://motorsport.org.au)
    - The Walkerville All Cars Club Walky Park Safety Plan
    - The Walkerville All Cars Club 2023 Series Regulations
    - The Vehicle Specific EV ERG for any EV entered into the Event available at:
      - <https://www.ancap.com.au/apps>
      - <http://www.nfpa.org/Training-and-Events/By-topic/Alternative-Fuel-Vehicle-Safety-Training/Emergency-Response-Guides>
      - The timing tower on the Brian Schultz shed as held by the CoC of the event and hosted on [Sportivity](https://www.sportivity.com) the events virtual Notice Board

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  - This EV Safety Plan will include the required information as set out in section 8.2(a) to 8.2(b) inclusive of the Motorsport Australia Electric Vehicle Appendix - Standing Regulations - Information for Event Organizers and Officials document. Which is summarized below:

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    - The Requirements of the emergency WACC response providers (FIV & Recovery)
    - The Requirements for PPE and Safety Equipment
    - Information regarding the Truro CFS/MFS Response Plan
    - Information on competitors will be briefed regarding the following points:
      - That an EV is participating in the event.
      - Safety Management in the case you they are required to assist in an incident response.
      - Where to access the EV ERG (Brian Schultz Shed and [Sportivity](https://www.sportivity.com))
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## Section 1 - Requirements of the WACC emergency response providers: (FIV – Recovery)

Prior to the start of competition, the FIV/Recovery Vehicle must be equipped with the necessary EV PPE, which should be securely loaded and stored within the vehicle as specified in the Motorsport Australia Electric Vehicle Appendix - Standing Regulations - Information for Event Organizers and Officials document.

The Required PPE that must be in the FIV/Recovery Vehicle includes:

- Gloves complying with AS2225 (ASTM D120, IEC/EN 60903) providing protection up to 1000 volts.
- Face shield - helmet mounted or visor style.
- Face mask/respirator complying with the industry standard for firefighting (i.e. P3 - AS/NZS1716)
- Footwear complying with the industry standard for electric shock protection (i.e. AS/NZS 2210)
- High voltage rescue hook providing protection up to 1000 volts
- Fire Extinguisher (ABE Powder)
- Access to the Emergency Response Guide (ERG)

Officials responding to an incident involving an EV must adhere to the 2023 Walky Park Safety Plan, which outlines the protocol for stopping competition and entering a course. In the event of an EV incident, the initial response from event command should follow the SOP for the venue until the FIV & Recovery team arrives at the incident location.

The FIV/Recovery team must be familiar with the specific EV vehicle models competing and the EV response plans outlined in this document. Additionally, the team must have undergone EV training, which can be provided by WACC, a third-party organization such as CFS, other Motorsport Australia affiliated club hosted training, or training through an RTO.

Upon arrival at the incident site, the FIV/Recovery team will first confirm the status of the crew audibly without approaching the vehicle. If the competing crew can confirm the vehicle is safe to approach (IE they have a flat tire and just need a tow back to service park) the FIV/Recovery team can assist once confirming the vehicle is safe.

If the crew is unresponsive or unsure of the status of the vehicle, it will be treated as live until confirmed otherwise. In this situation ***The 3 Step Electrical Vehicle Response Process as laid out in the Motorsport Australia Electric Vehicle Appendix - Standing Regulations - Information for Event Organizers and Officials document Section 6 as shown on the next page must be followed***

During an EV incident response, the FIV/Recovery team must maintain continuous communication with the CoC, providing regular updates on the situation and whether emergency services are necessary. If the FIV/Recovery team determines that emergency services are required, the CoC must follow the SOP outlined in the Walky Park Safety Plan for notifying emergency services (call 000) and stop all competition on all tracks if it has not already been stopped.

## 6. EV RESPONSE (EVR) PLAN

The potential for an electric shock must be considered in attending any *EV* incident.

### 6.1 The 3 Step Electric Vehicle Response "PROCESS"

In general, the process for attending an incident involving an *EV* can be summarised in 3 steps.

#### 1 – APPROACH

Approach the cockpit location from the side.

Ensure that all attending are wearing the required PPE and have the necessary equipment, e.g. rescue hook.

#### 2 – CHECK STATUS

##### *Series Production EV*

Check the Status Indicator in accordance with the *ERG* for that *EV*.

If **SAFE Status** is displayed, proceed.

If **UNSAFE Status** is displayed:

- (i) immediately advise others in the vicinity that the status is **UNSAFE**.
- (ii) check if the Ready to Move Indicators is illuminated, and if so, follow the procedure in the relevant *ERG*. If this requires opening a door or similar (e.g. to disconnect an *HV* system plug, cut a cable), proceed with caution.

##### *Competition EV*

If the status light is **GREEN**, proceed accordingly.

If the status light is **RED** or **OFF**:

immediately advise others in the vicinity that the status is **RED**;

check if the Ready to Move Indicators is illuminated, and if so;

firmly depress the **Emergency Stop Switch** and if fitted the **Battery Isolator Switch**. If as a result of these actions the **GREEN** light is illuminated proceed accordingly.

#### Status Notification

The status of the *EV* must be communicated to any person who may be involved at a later time, e.g. the Clerk of the Course, Recovery/Tow officials, Fire officials, Scrutineers, team personnel.

#### Status not confirmed

If the status of the *EV* cannot be confirmed **SAFE**, the *HV* systems of the *EV* must be treated as live.

#### 3 – RECOVERY

Provided the appropriate *PPE* is worn and if the status is confirmed **SAFE**, *EV* recovery may proceed accordingly. Collection of any damaged part must be carried out with care.

It may be required to disengage any drive gear, e.g. activating any neutral switch marked "N" which may be located on the external body work or within the cockpit.

Be aware that the status may change during any recovery procedure in which case it must be reported immediately to the *Organiser*.

#### Important Points

Do not put yourself in danger, assess each situation before proceeding.

Ensure that all PPE is ready to use and in good condition.

The *HV* parts may not be isolated so the use of *HV* gloves provides a level of protection until such time as the *EV* is deemed **SAFE** to touch.

If the status is not confirmed proceed with caution and if touching the *EV* only use *HV* gloved hands.

## Section 2 - The Requirements for PPE and Safety Equipment

As laid out in the Electrical Vehicle Response Process as laid out in the Motorsport Australia Electric Vehicle Appendix - Standing Regulations - Information for Event Organizers and Officials document Motorsport Australia makes several recommendations regarding PPE and safety equipment.

At Walky Park, our top priority is the safety and well-being of all participants and attendees. To ensure a swift and coordinated response in case of emergencies, we utilize a system involving Medical, Fire, Rescue, and Recovery teams.

These teams operate from a shared vehicle, strategically stationed at the Brian Schultz Shed. This location provides easy access to both the pits and start/finish locations, making it the most central point for everyone involved in the event - officials, competitors, crew, and spectators alike.

Our teams are equipped with the latest PPE as supplied by MSS Safety and are able to respond promptly to any location within the venue quickly and effectively, providing the necessary assistance to those in need.

Item and Standard	Who / Where	Reason
Gloves complying with AS2225 (ASTM D120, IEC/EN 60903) providing protection up to 1000 volts.  Recommended to be worn with an inner cotton glove and outer leather glove for additional protection.	FIV/Recovery Vehicles and officials.	Protection against electrical shock where the electrical status is unknown or not confirmed as "safe".
Face shield - helmet mounted or visor style.	FIV/Recovery Vehicles and officials.	A face shield is designed to protect the face of the wearer from potential electrical "arc flash". A face shield is required by any official involved in the first intervention at an incident.
Face mask/respirator complying with the industry standard for firefighting (i.e. P3 - AS/NZS1716)	FIV/Recovery Vehicles and officials.	A face mask/respirator assists in preventing fumes when responding to a fire. Note: The fumes from an EV fire may be toxic.
Footwear complying with the industry standard for electric shock protection (i.e. AS/NZS 2210)	FIV/Recovery Vehicles and officials.	

High voltage rescue hook providing protection up to 1000 volts	FIV/Recovery Vehicles and officials.	Used in case of paralysing electrical shock to pull an individual away from the electrical power source.
Automatic External Defibrillator (AED)	Located at the Brian Schultz Shed next to FIV/Recovery Vehicles and officials.	Available for electric shock and other medical emergency resuscitation.
Fire Extinguisher	FIV/Recovery Vehicles and officials. Service Park Refuel Brain Schultz Shed The Large Shipping Container	For a fire which may have an electrical hazard. Encapsulator Agent extinguisher systems are available which may present organisers with the most suitable extinguisher system for an EV fire.
Water Bath	N/A See <b>**Note 1**</b>	Reduce cell thermal runaway by submersing in high volumes of water.  The practicality of a water bath can be challenging as it may also require lifting equipment with the ability to lift and lower the vehicle into the body of water.  An alternative is to have a high volume water supply available capable of quenching the cells for a sustained period.
Emergency Response Guide (ERG)	Physical copies at the Timing Tower and FIV/Recovery Vehicles PDF versions loaded on the Event Virtual Notice Board (Sportity)	

**\*\*Note 1\*\* WACC does not have a water bath at Walky Park, but dose have 120,000L of water stored on site that can be used for a sustained quenching if required.**

Walky park also has a large, cleared area that can be used as fire control zone that an EV vehicle can be placed in and left to burn itself while out in a controlled environment as suggested in section 2.1(c) of the Electrical Vehicle Response Process as laid out in the Motorsport Australia Electric Vehicle Appendix - Standing Regulations - Information for Event Organizers and Officials document.

The recommended approach as suggested by representatives from the SA MFS was to use firefighting processes under the guidance of emergency services (if required) to control the initial burn and if possible, to extinguish the initial burn. Once extinguished relocate the vehicle to the control zone where it can then be left to reignite and burn under controlled conditions. If the initial burn is too intense to be immediately extinguished WACC would instead use a combination of firefighting processes and earth moving equipment to create a control zone around the vehicle under the guidance of emergency services to prevent any spread of fire at its present location.



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## **Section 3 - Information regarding the Civil emergency response plan.**

In order to enhance emergency management at Walky Park, WACC sought guidance from the South Australian MFS. As per their recommendations, WACC arranged for MFS members to train officials on handling emergency situations involving EVs, and received valuable guidance on managing EV fires at the venue given its unique location and infrastructure.

In light of the MFS recommendations, WACC has designated a 10m x 10m area to isolate a burning EV in case of extended burn. As installing a water bath would be impractical, the 120,000 liters of water stored in the venue's water tanks provide a suitable solution for fire management in such cases.

The MFS confirmed that, as long as WACC has an area to isolate a burning EV, no additional conditions need to be met. In the event of an EV fire, WACC would simply need to call 000 and report the fire in the same manner as any other fire requiring emergency attendance at the venue, provided the 000 operator is notified that the vehicle in question is an EV.

At WACC, we prioritize safety and strive to ensure the readiness of our staff to handle any emergency situations that may arise. By following the recommendations of experts such as the MFS, we are confident in our ability to provide a safe and enjoyable experience for our participants and attendees.



## Section 4 - Information on how competitors will be briefed.

All competitors will be briefed that an EV is competing as part of the Drivers briefing before the event.

The following additional information will be added into the Drivers briefing when a EV has entered an event:

1. That an EV is participating in the event.
2. The make, model, and competitor number of the vehicle.
3. Steps to take should they encounter the EV broken down on track:
  - a. Competitors are to follow the standard SA Rally SOS Process as laid out in the **2023 Series Regulations – When Competitors Stop on Track**
  - b. Competitors to be reminded that if they are required to stop they must the 3 Step Electric Vehicle Response Process
  - c. A brief Summary and reminder of the 3 Step Electric Vehicle Response Process
  - d. Competitors will be reminded that unless they have the correct PPE they should not touch the vehicle under any circumstance unless Green Safe Status is showing.
  - e. Competitors are reminded that if they are not 100% certain the vehicle is safe, they must not touch the EV, and must wait for FIV/Recovery to arrive and have deemed it is safe to do so. Competitors need to be mindful to use DRABCD and always access the area for Danger to themselves and others, to avoid creating additional patients during an incident.
  - f. Where to access the EV Safety Plan (Physical copy at the timing tower PDF on Sportity)
  - g. Where to access the EV ERG (Physical copy at the timing tower PDF on Sportity)