



FIM ELECTRIC MOTORBIKES PROCEDURES FOR ORGANISERS AND OFFICIALS

2025

Procedures for FIM Electric Motorbikes' Competitions

Introduction

The following rules apply to all officials operating on FIM competitions where electric vehicles are present, except for the FIM MotoE, FIM Land Speed Records and FIM Drag Racing events.

Forewords: The Race Direction or Clerk of the Course must be in contact with the pits and track marshals at all time during the event by radio or walky-talky means.

The eligibility of Electric Motorbikes at FIM events remains subject to the approval from each concerned FIM Commission.

The procedures for evacuating a motorcycle to a quarantine area, as listed in Article 9, will depend on the environment in which the evacuation will take place, and must always take into consideration the quickest and most efficient means.

Article 1 Personal Protective Equipment

The organiser or the promoter of the series must provide a minimum of 1 PPE set for electric safety (a safety hook, a pair of insulated gloves and an extinguisher) to be placed in each paddock and a minimum of 1 PPE set on the track for safety intervention.

- **Gloves: class 0 CEI 60903-2002 or CEI 60903-2003 (up to 1000 V) – Class 1 (above 1000 V)**
- **Fire extinguisher for Lithium-Ion batteries**
- **Fire blanked for EV-vehicles (min. 3 x 3 m)**
- **Emergency hook: CEI 61235 / 60230 / 50508 / NF C18-510**



The standards of the PPE are described in the FIM Electric Regulations for electric racing. Its highly recommend that teams or riders bring their own PPE sets and extinguishers.

Article 2 Duties of the Clerk of the Course and Technical Stewards

The Clerk of the Course must ensure that all the PPE sets are present and are in accordance with the FIM Electric Regulations in the paddock on their arrival and on the track before any testing or racing activity on the track.

The minimum number of sets will be specified by the regulations of each discipline.

When the teams or riders are required to provide PPE, the Technical Stewards must verify that the sets of PPE are in accordance with the FIM Electric Regulations.

The Clerk of the Course must identify one or several potential zones of quarantine on the track and paddock area.

The Clerk of the Course must brief and/or train the track marshals for the use of the PPE in case of accidents.

Article 3 Extraction Zone(s)

One or more extraction zones can be set up so that marshals can drop off a motorcycle with a safety problem, where a suitable vehicle can quickly evacuate it to the quarantine/burn zone. Reminder: Quarantine Zones, Extraction Routes and Burn Zones must be stipulated and clearly identified in the emergency/evacuation plan and map.

Article 4 Zones of quarantine/burning zone

A zone of quarantine/**burning zone** is a space where stopped and/or damaged electric vehicles or under unsafe status may be temporary placed in a case of danger or suspicion of electrical or fire danger. The Clerk of the Course must make sure that no one enters the zone unless authorised by them.

The dimension of the Zone should be minimum 4m / 4m.

When a vehicle is placed in a zone of quarantine/**burning zone**, a marshal must guard the zone, forbid access and alert the Race Direction or Clerk of the Course of any evolution of the vehicle.



A dedicated way from the track to the quarantine zone/**burning zone** must always be arranged and kept free from any obstacles in order to allow the extraction a faulty motorbike without any delay.

Article 4.1 Zone of quarantine/burning zone for outdoor events

The Clerk of the Course must pre-determined one or several zones of quarantine/**burning zone** close to the track and close to the paddock **and away from buildings, goods and the public**, in order to store the electric vehicle having electrical malfunction or severe crash or that are suspicious.

The track layout must include a way without any obstacles, where a bike can be extracted and pulled away to the quarantine zone/**burning zone**.

Article 4.2 Zone of quarantine/burning zone for Indoor events

The Clerk of the Course must pre-determined 1 or several zones of quarantine/**burning zone** ~~close to the track and close to the paddock and also~~ outside the venue **in an open-air area, away from buildings, goods and the public**, in order to store the electric vehicles having electrical malfunctions or severe crash or that are suspicious.

~~In a case of a fire or overheating of an electric component or smoke, the vehicle must be immediately placed in the zone of quarantine outside the venue in an open-air area away from buildings, goods and public.~~

The track layout must include a way without any obstacles, where a bike can be extracted and pulled away to the quarantine zone/burning zone.

Article 5 Security for E-Bike or TrialE competition

In the case the quarantine zones/**burning zones** cannot be pre-determined, a security perimeter must be set on the site of the incident due to the track layout or length of the course.

Security perimeter: A zone defined close to the track or the paddock with the help of the track marshals using tape or any material in order to prevent someone coming close to the bike.

For TrialE, the concerned section may be cancelled in case of an electric vehicle that cannot be evacuated.

Specificity for all “Class B” E-Bikes (>60V DC)

Before manipulating any Class B E-Bike, make sure that the main power button is switched off.

The following LED status will indicate when the E-Bike, can be touched safely or not after an accident:

| LED status | Prompt | Meaning |
|---------------------------|---|-----------------|
| **GREEN BLINKING** | LEDs are blinking. Power ON, voltage > 60V DC and Drive mode is OFF | SAFE |
| GREEN | LEDs are permanently on. DRIVE MODE IS ON | SAFE |
| RED | LEDs are permanently on. In a hazardous state (insulation failure, etc.) | NOT SAFE |
| BLUE | Recommended for 2025 LEDs are permanently on. | CHARGING |
| NO LIGHT | When LEDs are not visible but bike is switched on. | NOT SAFE |

The LEDs must be visible and functional when the motorcycle is running or activated. A motorcycle that appears on the starting grid when the LEDs are red, not visible or not working will not be allowed to start.

Article 6 Rider or mechanics in the zone of quarantine

The rider or his mechanic maybe authorised to enter the zone of quarantine in order to take charge of the vehicle. The rider or his mechanic is responsible to make sure the vehicle is safe before returning to race or storage.

Article 7 Responsibility and safety precautions

The rider and his crew are responsible for the electric vehicle at all times. All the safety precautions must be taken during its storage, the charging, the racing, when an incident or accident occurs and when the vehicle is put in quarantine.

The rider or the team manager must ensure that all persons working on the electrical vehicle has the qualification, diploma and knowledge about electric safety procedures.

Article 8 Briefing of the marshals

Prior the start of the practice, the Clerk of the Course and the chief technical steward must brief the marshal for the use of the PPE and electric safety procedures.

In particular, the following procedures should be briefed:

- In the case of smoke or fire in the pits or paddock
- In the case of smoke or fire on the track & rider is in contact with the vehicle
- In the case of smoke of fire on the track & rider is not in contact with the vehicle
- In the case of a red LED indicators or LEDs switched off & rider is in contact with the vehicle
- In the case of a red LED indicators or LEDs switched off & rider is not in contact with the vehicle
- Other hazards, overheating, sparks, electric shocks, electrical disfunction, auto-riding, etc.
- In the case of a severe crash, the rider seems injured or not fit to ride and green LED indicators

Article 9 Procedures

When an incident or accident occurs, the marshals must bring and wear the PPE sets and extinguishers when approaching the vehicle. The procedures listed below must be followed in the specified order. However, several actions may require to be done simultaneously. For races organised in closed venues (indoor arena, etc.), additional requirements and procedures should be made according to the infrastructures and environment.

During the charging procedure, the motorbikes must be placed at a sufficient distance from each other to avoid any fire spreading should an incident occur.

An evacuation procedure consists of 3 distinct stages:







- 1. Move the motorcycle away from the rider and secure the area**
- 2. Remove the motorcycle from the track**
- 3. Remove motorcycle from stadium to quarantine/burning zone**

If the environment permits, a motorcycle can be taken off the track and deposited directly in the quarantine/burning zone.

Article 9.1 In the case of smokes or fire in the pits or paddock



| | |
|--|--|
| <p>1. The marshals immediately inform the Clerk of the Course or race direction who alert the firemen.</p> | |
| <p>2. The marshal evacuates the crew, the public or any person of the zone.</p> | |
| <p>3. The marshals must not directly touch the vehicle.</p> | |



| | |
|---|---|
| <p>4. Make sure that the lanyard is not connected to the bike.</p> |  |
| <p>5. The marshals use the extinguishers.</p> |  |
| <p>6. If the fire cannot be controlled in the paddock, remove the bike with hooks and secure it in a quarantine zone.</p> |   |
| <p>7. The vehicle must be covered with a fire blanket and remain under surveillance.</p> |  |
| <p>8. The rider or team can enter the zone when the conditions are safe.</p> |  |

Article 9.2 In the case of a motorcycle accident on the track, where the LED lights are red or off, or if the motorcycle has a smoke or fire-type defect.

First of all, it's essential to move the motorcycle away from the rider and secure the area.



| | |
|--|--|
| <p>1. The marshals immediately inform the Clerk of the Course or Race Direction indicating the rider and LED indicators status. The Race Direction or Clerk of the Course stops the session (red flag) and alert the firemen.</p> | |
| <p>2. The marshals evacuate all the persons present in the zone.</p> | |
| <p>3. The marshals must not directly touch the vehicle.</p> | |
| <p>4. Marshal 1 approaches the motorbike with a fire extinguisher</p> | |
| <p>5. Marshal 2 removes the kill switch and disables the main power supply (mushroom button or key or circuit breaker), if applicable.</p> | |

| | |
|--|---|
| <p>6. Marshals 2 and 3 use the hook and/or gloves to lift the bike away from the rider.</p> |  |
| <p>7. The rider must be checked by the medical or para-medical crew (if applicable).</p> |  |

Article 9.3 Evacuation of the motorcycle from an area with obstacles



| | |
|--|--|
| <p>1. Marshal 1 with a fire extinguisher nearby and ready to intervene if necessary</p> | |
| <p>2. Marshals 2 and 3 raise the bike either by hand or with the safety hooks.</p> | |
| <p>3. Marshal 4 installs a fire blanket on the front of the motorcycle, covering the battery/engine section.</p> | |
| <p>4. Marshals 5 or 6 other people bring the lifting bars⁽¹⁾ and pass them through the straps⁽²⁾.</p> | |

| | |
|--|--|
| <p>5. Marshals 2, 3, 5 and 6 lift the motorcycle and carry it to the evacuation area.</p> |  |
| <p>6. Marshal 1 with the extinguisher follows the procedure and will intervene if necessary.</p> |  |
| <p>7. The vehicle must be carried in the extraction area (trailer or tarpaulin to be taken to the quarantine area).</p> |  |

⁽¹⁾ For this procedure, it is recommended to use 2 bars of about 2m50 long, insulated and resistant to 150kg load, with a shape that holds the strap in its center, ideally with grip/guidoline at each end to be used with gloves.

⁽²⁾ Motorcycles must be fitted with straps, if possible with good fire resistance. The first will be placed under the fork crown and the second on the rear frame of the motorcycle and of sufficient length to allow the evacuation bars to be passed through.

Article 9.4 Evacuate the motorcycle from a clear, unobstructed area.

| | |
|--|--|
| <p>1. Marshal 1 with a fire extinguisher nearby and ready to intervene if necessary</p> | |
| <p>2. Marshals 2 and 3 raise the bike either by hand or with the safety hooks.</p> | |
| <p>3. Marshal 4 installs a fire blanket on the front of the motorcycle, covering the battery/engine section.</p> | |
| <p>4. Marshal 1 with the extinguisher follows the procedure and will intervene if necessary.</p> | |
| <p>5. Marshals 2 and 3 push the motorcycle to the extraction area.</p> <p>The vehicle must be carried in the quarantine/buring zone.</p> | |