S2 Partnership Ltd
Intelligent Risk Management

HEALTH & SAFETY BRIEFING NOTE

MICRO-MOBILITY DEVICES

Micro-mobility devices (MMDs)

As micro-mobility devices (MMDs) such as e-scooters, e-bikes, hoverboards and EAPCs become increasingly popular, it is essential they are correctly charged and stored to avoid any associated risks.

Electric scooters are one of the most popular MMDs used in many cities. According to the UK Government's definition, an e-scooter falls under the statutory classification of a motor vehicle. They specify that an e-scooter is a motor vehicle that:

- Is equipped with only an electric motor, with a maximum continuous power rating of 500W, and lacks pedals for propulsion.
- Is designed for the transportation of a single individual.
- Has a top speed not exceeding 15.5mph.
- Features two wheels, one in the front and one in the rear, aligned with the direction of travel.
- Has a total weight, including the battery but excluding the rider, not exceeding 55kg.
- Offers directional control through handlebars mechanically linked to the steered wheel.
- Employs speed control via hand controls with a power control that defaults to the 'off' position.

According to the Road Traffic Act 1988, e-scooters must adhere to the same rules as motor vehicles, including licensing, insurance and taxation. Using e-scooters on the road or in public areas is currently illegal due to the lack of insurance coverage.

EAPCs, unlike e-scooters, are not governed by the Road Traffic Act. However, to be considered a non-motor vehicle when used on the road, EAPCs must meet specific criteria. These include:

- Pedals capable of propelling the cycle
- A maximum continuous rated power of 250 Watts for the electric motor
- Electrical assistance must cut off when the vehicle reaches 15.5 mph

What are the risks?

While the benefits of using environmentally friendly micro-mobility devices, such as electric scooters and bikes, are widely recognised, it is important to acknowledge the challenges and risks associated with these modes of transport as they share similar issues and dangers with electric vehicles.

Furthermore, the compact size of these devices can pose additional risks. Users may store them in areas that obstruct walkways, posing a tripping hazard and causing accidents. Additionally, if these devices are stored in fire escape routes, it could hinder the safe evacuation of occupants in the event of an emergency. It is crucial to prioritise the safety of individuals and ensure that these devices are stored in appropriate locations to mitigate potential risks.

Battery failure in e-bikes and e-scooters poses a significant risk of fires and explosions, which can quickly spread. The London Fire Brigade has responded to an average of one e-bike or e-scooter fire every two days this year. In 2022 alone, they had to handle over 100 fires related to these devices. To ensure public safety, the use of private e-scooters on London's transport network has been prohibited since December 9, 2021.

Considerations by Management

Site managers may implement a policy to address the risks posed by e-scooters/e-bikes. Managers should decide whether these vehicles are permitted on the premises, and if so, enforce the use of safety gear and rules for riders. The policy should also cover risks associated with charging and provide guidelines for handling any accidents that may occur.

If e-scooters and e-bikes are permitted on-site, Staff members should take responsibility for ensuring all means of escape are clear by conducting regular checks during their site patrols. These checks should include:

- Removing any obstructions or combustible items that may hinder an emergency evacuation
- Bikes, e-scooters and other similar devices should only be stored in designated areas to prevent any potential hazards
- Clear and informative signage to assist users in complying with this policy

Site managers are responsible for informing the building insurers about these devices' storage and charging locations to determine if they have any specific requirements. Fire Risk Assessments and General H&S Assessments should be updated accordingly to include these devices' storage and charging arrangements.

If a device's battery experiences severe impact or sustains physical damage, such as an accident or a fall, it should be considered damaged, increasing the risk of fire. Management must ensure that all individuals using these devices are aware of the risks linked with their batteries and acknowledge the necessity of examining the battery for any damage or signs of thermal runaway.

It is also important to only purchase and use micro-mobility devices from reputable retailers with appropriate certifications.

Safety Measures for Charging MMDs

The requirement for this is currently unavailable, which means it falls under the scope of risk assessment and fire prevention. Various organisations have provided guidance for safe charging of personal mobility devices, including the UK Health and Safety Executive, fire brigades, local authorities, housing associations, and insurers.

Below is S_2's workplace guidance for charging micro-mobility devices:

- Choose a suitable area for parking and charging MMDs. This should preferably be outdoors in a well-ventilated and cool area away from direct sunlight or heat sources. If charging indoors prioritise ground floor areas with access to fresh air through a door and ensure:
  - It is separated from protected routes by at least 30 minutes of fire resistance and not linked to a single means of escape.
  - Free of flammable goods.
  - Clean, clear of debris, and well-ventilated.
  - Has suitable smoke detection installed or at least a heat detector if in a plant room or an in-use garage/car park.
  - There is proper installation or accessibility of suitable fire extinguishers within a reasonable distance. Use Lith-EX extinguishers for Lithium-based batteries.
- Always use the original charger provided by the manufacturer. Using an unauthorised charger poses a risk of fire.
- Plug the charger into a power supply with circuit breaker protection. Ideally, this should have an annual inspection to verify the circuit breaker will work.
- Avoid charging MMDs in common area corridors of multi-tenanted buildings as these will almost always be part of the fire escape route for some or all the building occupants.
- Set a reminder to check and unplug the device when fully charged.
- Suppliers/installers of charging points must submit risk assessments and method statements for installation, considering specific charging requirements for different batteries.

What to do if a MMD battery fire ignites:

- DO NOT GO NEAR IT or attempt to put the fire out unless you have been suitably trained.
- Operate the fire alarm if it is not already sounding.
- Call the Emergency Services (999 in the UK)
- Evacuate the premises in line with your fire evacuation procedure.

How can we help?

S_2 Partnership is a leading safety risk management specialist for the commercial property sector. Our knowledgeable, independent consultancy services and RiskWise property risk management software are trusted by many of the leading managing agents, property owners, investors and insurers within the industry.

The S_2 Partnership has a dedicated team of Fire experts who can provide risk assessments, training, guidance and fire safety management systems to a range of organisations to meet legal obligations. S_2 keeps abreast of the latest changes in regulations and works with clients to develop robust safety solutions, providing just the right support to each individual business to protect lives, buildings and businesses.

We hope you find the information contained in this document helpful.

Please do not hesitate to contact us if you require any further guidance or support.

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