

Loss Prevention Standards – Asset Classes

Electric Bicycles and Scooters – Checklist

Version: 2.0

Date: 27th June 2024

Electric Bicycles and Electric Scooters – Checklist



Electric Bicycles and Electric Scooters – Checklist



Location	
Date	
Completed by (name and signature)	

	General Checklist	Y/N	Comments
1.	<ul style="list-style-type: none"> Have plans to store and/or charge E-Bikes, E-Scooters etc. been discussed with your Insurer and Broker? If so, has any related guidance or risk improvements been actioned or scheduled for action? 		
2.	<ul style="list-style-type: none"> Is there a Management Policy around battery powered devices? Does this prescribe the maximum number of devices allowed to be stored or charged on site? Has this been clearly communicated to all employees, visitors, contractors etc.? Does this prescribe that such devices should: <ul style="list-style-type: none"> Only be permitted in specifically designated areas? Prohibited from general areas of any building or site e.g., at desk side, workshops; in lockers etc.? 		
3.	<ul style="list-style-type: none"> Are there Standard Operating Procedures in place detailing safe operating requirements/rules, key responsibilities, emergency arrangements in relation to rechargeable/lithium-ion batteries etc? Has this been shared with relevant staff? Are arrangements in place for regular reviews? 		
4.	<ul style="list-style-type: none"> Where relevant, have the proposed changes to permit E-Bikes, E-Scooters etc. at the premises been reviewed through a formal Management of Change process? 		
5.	<ul style="list-style-type: none"> Have all appropriate existing risk assessments, including a Fire Risk Assessment and an explosive atmospheres/DSEAR assessment been revised and updated? 		

LOSS PREVENTION STANDARDS

	<ul style="list-style-type: none"> Do risk assessments consider the upper safe operating temperatures of the batteries being stored/charged (e.g., hot weather, hot processes in proximity)? Have any actions been implemented or scheduled for implementation? 		
6.	Has any emergency fire information for the emergency services been updated to confirm the presence and location of rechargeable/lithium-ion batteries?		
7.	<p>Are charging and storage areas inspected in line with the management policy ensuring:</p> <ul style="list-style-type: none"> Equipment, fixings, and structures are free from damage and operating normally? The area is maintained clear of combustible items, hazardous processes etc.? Surge protection is in place and working normally? No extension leads, multi-adaptors etc are in use? 		
8.	<p>Is the site undertaking regular inspections of equipment under charge and charging equipment using a thermographic camera (at least monthly is recommended)?</p> <p>Thermographic cameras can be purchased from Aviva Specialist Partner PASS.</p>		
9.	<ul style="list-style-type: none"> Are formal infra-red thermographic inspections completed at least annually by a competent and trained thermographer? Do these inspections incorporate the isolator switches, the local electrical supply network, connections, cables as well as the e-devices themselves? Have all recommended improvement actions been completed or scheduled? 		
10.	Should emergencies relating to E-Bikes, E-Scooters etc. occur, is there an escalation process to ensure prompt attention by appropriate members of staff and management?		
11.	<ul style="list-style-type: none"> Has adequate information and training been provided to those employees who wish to use E-Bikes, E-Scooters etc.? Does this training address: <ul style="list-style-type: none"> workplace hazards? the dangers of procuring after-market, second hand or non-OEM devices etc? Maintenance responsibilities? 		

LOSS PREVENTION STANDARDS

	External Storage and Charging	Y/N	Comments
12.	<p>Are external storage areas:</p> <ul style="list-style-type: none"> • Adequately separated from buildings, assets and combustible goods maintained (10 metres is recommended in most cases)? • If not, have fire barriers providing at least 60 minutes fire resistance been installed? • Are any such barriers in good order with no signs of damage or fault? • Are storage areas in good order with no signs of damage? • If not, have repairs been completed or scheduled? • Do the numbers of E-Bikes, E-Scooters etc. in storage align with the maximum number specified in the Management Policy/Standard Operating Procedures. 		
13.	<p>Underground Car Parks:</p> <ul style="list-style-type: none"> • Where storage facilities are located in underground car parks, is storage and charging of E-Bikes, E-Scooters etc., only undertaken in a storage/charging room or containment with a defined fire resistance rating of at least 60 minutes or 90 to 120 minutes where necessary (e.g., significant accumulations of E-Bikes, E-Scooters etc., or other risk features which increase the risk of ignition or fire growth such as the presence of combustible construction elements to the building, critical plant, or equipment in proximity; large accumulations of vehicles/electric vehicles; aged or imperfect passive fire protection to car park ceiling etc.)? • Is the room or containment in good condition with no signs of damage? • If not, have repairs or replacement been scheduled? • Are the devices in storage within the recommended capacity? • Is the room/containment clear of other items in storage? • Are all electrical fittings appropriately rated for potentially explosive atmospheres? • Are underground storage locations regularly assessed for any impacts from heavy rain accumulations (surface water) or inundation. • Are any drainage tanks, sumps, pumps, non-return valves or other flood mitigation systems in good order? • Are such systems subject to testing/servicing/maintenance arrangements? 		

	Internal Storage and Charging	Y/N	Comments
14.	<ul style="list-style-type: none"> • Are internal battery storage rooms/compartments, including fire doors or fire shutters etc.: <ul style="list-style-type: none"> ▪ Designed to providing at least 60 minutes fire resistance? ▪ In good condition with no signs of damage? ▪ If not, have repairs or replacement been scheduled? ▪ Filled below or up to recommended capacity? ▪ Clear of other items in storage? • Are all electrical fittings appropriately rated for potentially explosive atmospheres? 		
15.	<ul style="list-style-type: none"> • Are ventilation systems operating normally? • Are planned testing/servicing/maintenance arrangements up to date? 		
16.	<ul style="list-style-type: none"> • Are appropriately EX rated ventilation systems installed? • If so, are ventilation systems operating normally? • Are planned testing/servicing/maintenance arrangements up to date? • Has the generation of hydrogen or other gases considered in relation to exacerbation of any fire or an explosion? 		
17.	<ul style="list-style-type: none"> • Are automatic fire detection and any automatic fire protection systems such as sprinklers in normal working order? • Are they adequately covering battery storage and charging areas? • If installed, has the sprinkler system been reviewed to reflect the battery storage and/or charging hazards with an accredited sprinkler company? 		
18.	Are alarm monitoring systems in normal working order?		
19.	<ul style="list-style-type: none"> • Are interlocks in place and fully functioning? • Are interlocks tested at least annually 		

	Detachable Battery Charging	Y/N	Comments
20.	<ul style="list-style-type: none"> • Where provided, are battery storage/charging cabinets: <ul style="list-style-type: none"> ▪ Designed to providing at least 60 minutes fire resistance? ▪ In good working order? ▪ If not, have repairs or replacement been scheduled? 		

LOSS PREVENTION STANDARDS

	<ul style="list-style-type: none"> ▪ Not filled past recommended capacity? ▪ In an appropriate dedicated area clear from combustible goods, hazardous activities, and valuable assets? • Is any required portable appliance testing of charging equipment up to date? • If so, have any actions been completed or scheduled 		
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	Charging and Electrical Hazards	Y/N	Comments
21.	<ul style="list-style-type: none"> • Are all chargers and electricity points installed and maintained in accordance with manufacturer's instructions? • Was/is this completed by a competent trained electrician with appropriate accreditation? • Have the circuits supplying the charging points been checked to ensure they have capacity for the proposed additional electrical load? • Are chargers suitably rated for ALL the devices they charge? • Are all chargers clearly labelled? • Does the design and layout of the area ensure cables connected to the battery do not become stressed e.g., overstretched, tangled, or can be damaged? • Has the routing of the cabling and grouping of cables been carefully considered to prevent excessive heating in cable trays or conduits? • Are appropriate identification and warning signs provided? • Do all chargers have a readily accessible and clearly labelled master isolation switch in a separate fire area? 		

	Damaged or Faulty Devices	Y/N	Comments
22.	<ul style="list-style-type: none"> • Is a formal procedure in place for handling damaged E-Bikes, E-Scooters etc., or items suspected of being damaged? • Is this procedure shared with relevant personnel? 		

LOSS PREVENTION STANDARDS

23.	<p>Are temporary segregation/quarantine areas:</p> <ul style="list-style-type: none"> • External and as far away from buildings, valuable assets, and combustible goods as possible (In most cases 10 metres is recommended)? • If the batteries are contained, are they within a non-combustible receptacle? • Where external storage is not possible, is a dedicated storeroom specifically for damaged E-Bikes, E-Scooters etc. provided? • Is this storeroom of non-combustible construction providing a fire resistance rating, including the ceiling of 90 to 120 minutes? • Is the storeroom adequately secured? 		
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	Security	Y/N	Comments
24.	<p>Has a security risk assessment been revised/completed for the storage/charging facility?</p> <p>Has this included:</p> <ul style="list-style-type: none"> • Geographic location of the site? • Perimeter security e.g., fences, walls? • Guarding provision? • Whether there is a secure compound? • Video Surveillance systems (VSS)? • Alarm provision? • Security lighting etc? 		

	Fire and Rescue Service	Y/N	Comments
25.	Is Fire and Rescue Service access to the premises unimpeded?		
26.	<ul style="list-style-type: none"> • Does the site know the distance and location to the nearest source of fire water or hydrant that the Fire and Rescue Services may need use? • Is this formally documented an emergency response plan or shown on appropriate drawings? 		
27.	<p>With regard to firefighting water supplies:</p> <ul style="list-style-type: none"> • Are hydrants routinely tested for static pressure, flows and residual pressure? 		

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	<ul style="list-style-type: none"> • Are these flows and pressures suitable for the hazard presented? • If not are additional water supplies or automatic fire protections such as sprinklers required? 		
28.	<ul style="list-style-type: none"> • Do site risk assessments extend to address potential environmental exposures caused by fire involving lithium-ion batteries? • Have firefighting strategies including containment measures been discussed with the Fire & Rescue Service? 		

29.	Additional comments:		
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