

Loss Prevention Standards – Asset Class

Rechargeable Batteries - Checklist

Version: 1.0

Date: 27th June 2024

Rechargeable Batteries - Checklist



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Location	
Date	
Completed by (name and signature)	

	General Overview	Y/N	Comments
1.	<ul style="list-style-type: none"> Where large items of rechargeable/lithium-ion battery powered equipment*, and significant sales stock holdings are present or planned, have you discussed with your Insurer and Broker*? If so, has any related guidance or risk improvements been actioned or scheduled for action? <p>Note: For example, fork-lift truck plant, electric vehicle fleet, battery powered vehicle refrigeration, battery energy storage systems etc.</p>		
2.	<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? 		
3.	<ul style="list-style-type: none"> Does the business/site have a formal Management of Change process? Where relevant, have the proposed changes to handle or store rechargeable/lithium-ion batteries or goods containing such batteries at the premises been reviewed through this process? 		
4.	<ul style="list-style-type: none"> Have all appropriate existing risk assessments, such as a Fire Risk Assessment and an explosive atmospheres/DSEAR assessment been revised and updated? Do risk assessments consider the upper safe operating temperatures of the batteries being stored/charged (e.g., hot weather, hot processes in proximity)? If so, have any actions been implemented or scheduled for implementation? 		

LOSS PREVENTION STANDARDS

5.	<p>In respect of storage of any damaged, faulty, returned, or recycled batteries:</p> <ul style="list-style-type: none"> • Have you discussed with your Insurer and Broker? • Have risk assessments been revised and updated? • Are robust acceptance, handling, test charging and storage rules and procedures in place and issued to relevant staff? • Are storage and ventilation arrangements aligned with Aviva guidance? • Are frequent and recorded inspections of storage and test charging areas undertaken? • Have the local Fire & Rescue Service been notified of the presence of damaged, returned, or recycled batteries at your premises? • Are batteries transported by hauliers or couriers suitably experienced in carrying potentially hazardous goods in compliance with recognised Regulations or agreements? • Are staff adequately trained on the specific hazards of damaged, faulty, returned, or recycled batteries? • Are adequate emergency response procedures in place? 		
6.	<p>Have you updated any emergency fire information located at the premises for the emergency services to confirm the presence and location of rechargeable/lithium-ion batteries?</p>		
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 batteries/e-devices themselves? 		

	<ul style="list-style-type: none"> Have all recommended improvement actions been completed or scheduled? 		
10.	Should emergencies relating to rechargeable/lithium-ion batteries occur, is there an escalation process to ensure prompt remediation by appropriate members of staff and management?		
11.	<p>In respect of contractor's equipment:</p> <ul style="list-style-type: none"> Is there a robust procedure for checking the condition of contractor's battery powered equipment Are appropriate charging areas provided? Are work areas subject to regular inspection to ensure compliance with site rules on battery usage/charging? 		
12.	Are staff routinely trained on the safe handling of rechargeable/lithium-ion batteries?		

	Scheduled Inspection Checklist	Y/N	Comments
13.	<p>In respect of external battery storage areas:</p> <ul style="list-style-type: none"> Are adequate clearance distances from buildings, assets and combustible goods maintained (In most cases at least 10 metres is recommended)? If not, have fire barriers providing at least 60 minutes fire resistance been installed (or as stipulated in the premises Fire Risk Assessment)? Are any such barriers in good order with no signs of damage or fault? Are stores in good order with no signs of damage? If not, have repairs been completed or scheduled? Are battery numbers appropriate? 		
14.	<ul style="list-style-type: none"> Are battery storage/charging cabinets: <ul style="list-style-type: none"> Designed to provide at least 60 minutes fire resistance (or as stipulated in the premises Fire Risk Assessment)? In good working order, with no signs of damage? If not, have repairs or replacement been scheduled? Filled below or up to 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? 		

LOSS PREVENTION STANDARDS

15.	<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 provide at least 60 minutes fire resistance (or as stipulated in the premises Fire Risk Assessment)? ▪ 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? 		
16.	<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)? • Where external storage is not possible, is a dedicated storeroom specifically for damaged E-Scooters, E-Bikes etc. provided? • Is this storeroom of non-combustible construction providing a fire resistance rating, including the ceiling of at least 90 minutes. 		
17.	<ul style="list-style-type: none"> ▪ Are damaged lithium-ion batteries and other battery types deposited with other general waste? ▪ If yes, have the site rules and SOP's been updated to prohibit such activity? ▪ Are damaged lithium-ion batteries and other battery types stored in the same waste receptacle(s)? ▪ If so, have the site rules and SOP's been updated to prohibit such activity? 		
18.	<ul style="list-style-type: none"> • Have any batteries in use on site near or exceeded their lifecycle rating? • If so, have they been removed from use and returned/ scheduled for return, to the supplier or disposed of safely? 		
19.	<ul style="list-style-type: none"> • Are self inspections being completed at the stipulated intervals? • Have any remedial actions been completed or scheduled? 		
20.	<ul style="list-style-type: none"> • Are appropriately EX rated ventilation systems installed? • If so, are ventilation systems operating normally? • Are planned maintenance arrangements up to date? 		
21.	<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 covering battery storage and charging areas? 		

LOSS PREVENTION STANDARDS

	<ul style="list-style-type: none"> If installed, has the sprinkler system been reviewed to reflect the battery storage and/or charging hazards? 		
22.	Are alarm monitoring systems in normal working order?		
23.	<ul style="list-style-type: none"> Are interlocks in place and fully functioning? Are interlocks tested at least annually? 		

	Fire and Rescue Service	Y/N	Comments
24.	Is Fire and Rescue Service access to the premises unimpeded?		
25.	<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? 		
26.	With regard to firefighting water supplies: <ul style="list-style-type: none"> Are hydrants routinely tested for static pressure, flows and residual pressure? Are these flows and pressures suitable for the hazard presented? If not are additional water supplies or automatic fire protections such as sprinklers required? 		
27.	<ul style="list-style-type: none"> Do site risk assessments extend to address potential environmental exposures caused by fire involving lithium-ion batteries? Has firefighting strategies including containment measures been discussed with the Fire & Rescue Service? 		

28.	Additional comments:		
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