Southern Cross University

SAFETY ALERT

To:	ALL STAFF	**Issued:** 9/9/2024 **Alert #:** 5
Subject:	Lithium-ion battery-operated equipment (including electric scooters)	
Purpose:	To advise staff on the hazard	

SAFETY ISSUES

There have been several fires involving electric scooters in Queensland. Electric bicycles and skateboards, hoverboards, electric mono-wheel devices, drones, remote control model aircraft, cars, boats and other toys, power tools, and other battery-operated household or recreational electrical appliances also use rechargeable lithium-ion batteries (with internal or detachable battery packs).

WHAT IS THE POTENTIAL RISK

- Fire and explosion risk
- Chemical Hazards
- Thermal Runaway
- Electrical Hazards

POSSIBLE CONTROL MEASURES TO PREVENT INCIDENTS

Information for safe storage and safe charging where multiple devices may be stored/charged (e.g., Universities, places of work, businesses):

Storage location:

- Choose a cool, dry, sheltered location to store devices while ensuring adequate ventilation.
- Avoid placing storage areas near other buildings to prevent the spread of fire if there is an incident. Keep them away from children's play areas and flammable materials.

Building type:

- Where possible, consider using concrete or brick buildings for storage rather than timber buildings as they pose less of a risk of spreading fire if there is an incident.
- Avoid using storage areas under the building to store and charge devices if there are important functions taking place above (do not store under school classrooms or under locations where flammable materials or work processes are likely to occur). If the functions being performed above the storage area are not considered critical and under-building storage and/or charging is used, consider the building material type or adding barriers to reduce the spread of fire should any incident occur. Also, consider additional safety control measures, including those suggested on this webpage.

Spacing and piling:

- Arrange devices with sufficient spacing to prevent them from being piled up or stacked on top of each other. This will prevent the devices from overheating and reduce cascading effects if an incident occurs.

Charging controls:

- Ensure all manufacturer-specified requirements for charging are met.
- Ensure any chargers comply with Australian safety standards and have the RCM mark.
- If charging during business, work hours, ensure the chargers match the specific device brand/model. Avoid using general chargers or allowing staff/students to swap chargers.
- Don't allow charging overnight or when the business/building is unoccupied (unless you have suitable safety requirements in place, including suitable locations/rooms, fire alarms and sprinklers).
- Ensure the location is monitored if charging is occurring.
- Prohibit charging of modified devices.
- Regularly check for damage and avoid charging if any issues are identified.
- Maintain clear spaces around charging e-bikes and e-scooters to prevent overheating.

Safety measures:

- Install smoke detectors in the storage area and consider fire sprinkler systems.
- Keep exits clear, particularly when charging devices.
- Restrict access to the building or location where charging occurs.
- Before accepting the devices for storing and/or charging, ensure the devices comply with the relevant safety standards.

ACTIONS

- Ensure all manufacturer-specified requirements for charging are met.
- Ensure any chargers comply with Australian safety standards and have the RCM mark.
- Review of current charging practices to see if they met the above guidance
- Consider charging Lithium-ion charging cabinet