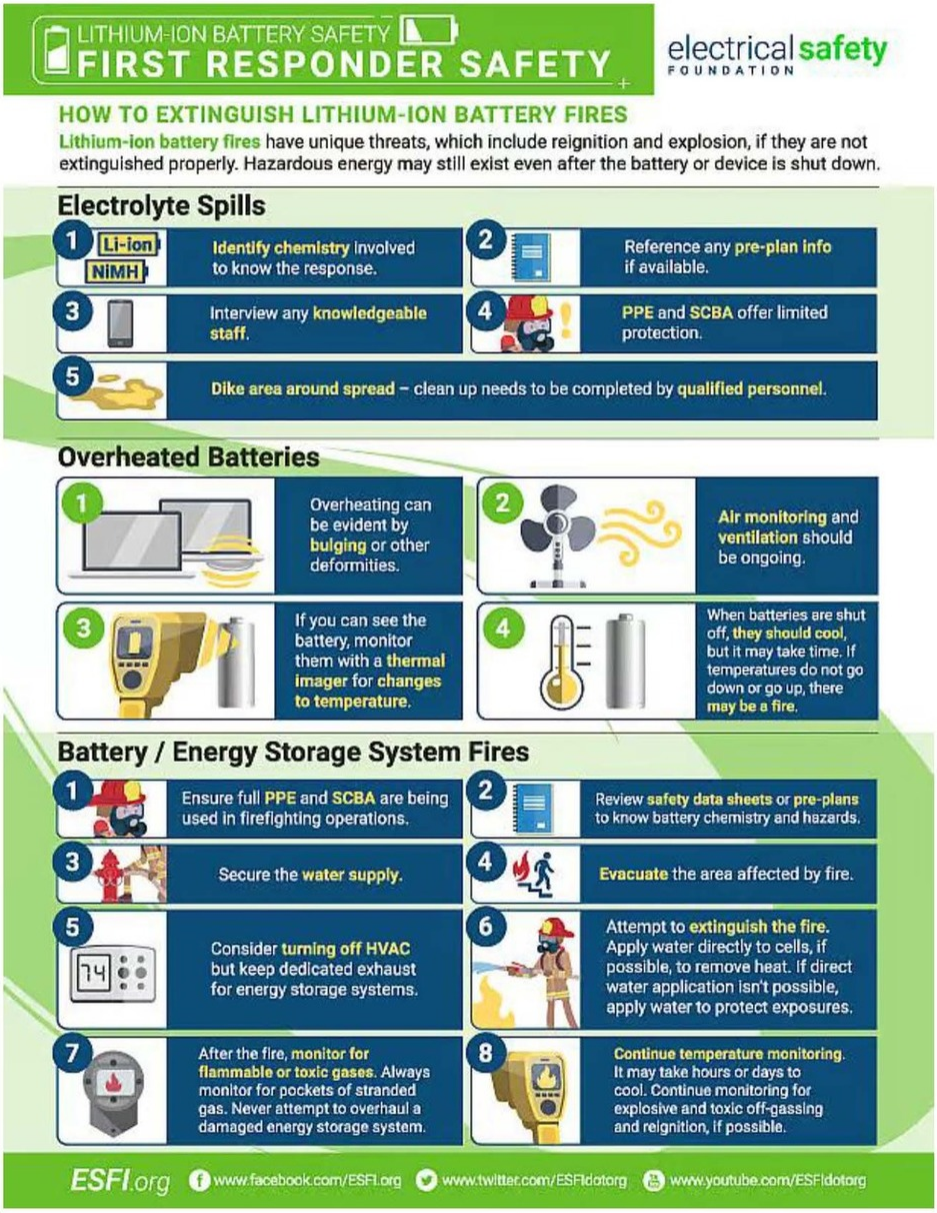
Weekly Safety Tip

May is Electrical Safety Month: How to Extinguish Lithium-Ion Battery Fires

SAFETY TIPS

May is Electrical Safety Month

Safety Council OF NORTHWEST OHIO



Weekly Safety Share

SAFETY SHARE

Dangers of Roll-Overs of Riding Mowers

SAFETY SHARE: Dangers of Roll-Overs of Riding Mowers

Fatal Incident # 1: *A groundskeeper was mowing near the top edge of a retaining wall when his riding mower hit a rock and went over the ledge. The mower fell three feet and landed on top of the groundskeeper, killing him instantly.*

Fatal Incident # 2: *A groundskeeper for the National Park Service (NPS) was mowing alongside the Blue Ridge Parkway at an overlook near Asheville, North Carolina, operating a zero-radius-turn riding mower that was equipped with a roll-over protective structure. As he maneuvered his mower behind a trash can in a narrow section of the terrain, his mower went over an embankment and fell at least 100 feet, killing the worker.*

Safety Considerations for Riding Mowers

Workers operating riding mowers face serious safety issues, so you need to make sure that the equipment in use is used and maintained with safety in mind. Workers need to be trained to avoid evident and expected hazardous surroundings.

The guidelines discussed below are based on safety principles issued by Cal/OSHA; the Canadian Centre for Occupational Health and Safety; and the Outdoor Power Equipment Institute (OPEI).

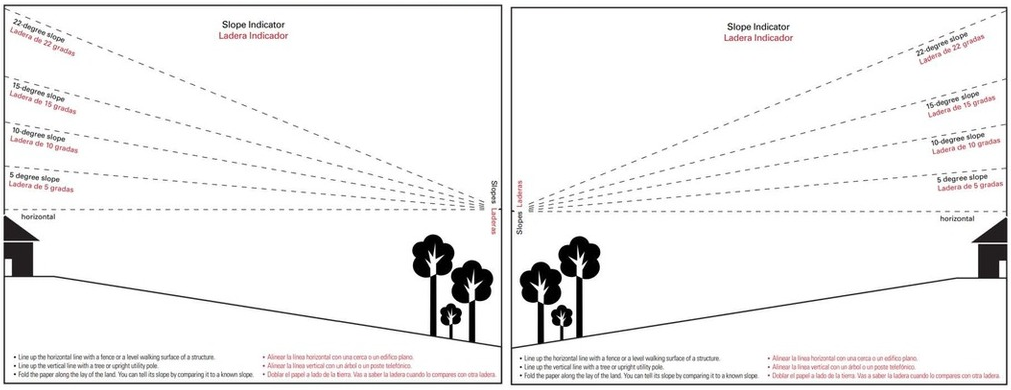
Ensure Equipment Safety by using and maintaining mowing equipment safety features, with particular attention to the following:

- Some riding mowers are designed by their manufacturer to be equipped with a **roll-over protective structure** (**ROPS**). The ROPS can either be standard or optional equipment.
- If the mower being used does not have a ROPS, look for unused bolt holes or brackets near the seat or frame to see if the mower should be equipped with a ROPS. Do not operate a mower that was intended to be equipped with a ROPS without its ROPS in place. In many cases, retrofit kits are available. Contact the manufacturer to see if there is a kit for the mower you will be using.
- Mowers with a ROPS should also be **equipped with a seat belt**. Provide and use approved seat belt assemblies on all riding lawn mowers on which a ROPS has been installed.
- Where vertical clearance does not allow ROPS in the raised (active) position, the **ROPS may be temporarily placed in the lowered (inactive) position**. Also, **workers should not wear a seat belt while operating a riding mower with the ROPS in the lowered position**. Return the ROPS to the raised position as soon as the riding mower is in an area where the vertical clearance allows its use and reconnect the seat belt.
- Equip riding mowers with an **operator presence control system that shuts off the blades** when the operator dismounts or rises out of the seat.
- Equip riding mowers with **interlocks that ensure that the engine cannot start while the mower is in gear or if the blade is engaged**. Inspect mowers to ensure that operator presence systems and all safety features are always in place and operable.
- Keep riding mowers in good working order, and check that the ROPS and seat belt are correctly and securely attached.
- Mower operators should use a standard checklist to do a general inspection of the equipment before use. For example, the checklist should include checking the tire pressure and checking for missing or damaged guards, etc.
- Experienced service personnel should inspect riding mowers for the necessary safety features and overall maintenance at least annually. Only qualified personnel should service and repair riding mowers.

Determine the Safety of the Surroundings

Employers should be familiar with the conditions of the terrain on which their mowers are being used. They should ensure that their workers take the following precautions:

- Do not operate mowers on slopes that exceed the angle limits specified by the manufacturer. **Look for a label on the mower**.
- When the manufacturer's instructions are not available or do not specify the angle limits for operating on sloped surfaces, evaluate the terrain and slope conditions to ensure that the mower is operated in a safe manner. **Avoid mowing on slopes with an angle of over 15 degrees if there is no other information available.**
- **Use a slope indicator**, also known as a clinometer or inclinometer, if you need one. Used to determine slope angles, inclinometers are devices that attach to equipment; applications for mobile devices; or printable versions can be download online.
- **Always remove the key when you are leaving a mower unattended, but never leave mowers unattended on a slope**. After turning off a mower, the rider/operator should set the brake, remove the key and wait to make sure that all the moving parts have stopped before leaving. The rider cannot assume that the moving parts will stop.
- **Do not operate mowers in areas where the drive wheels are within five feet**, as measured from the outside wheel edge, of the **unprotected edges of retaining walls, embankments, levees, ditches, culverts, excavations**, or similar locations that present an overturn or roll-over hazard. Use a string trimmer or a push mower instead.
- When it is necessary to operate riding mowers near ponds, creeks, reservoirs, canals, sloughs, lakes, golf course water hazards and similar bodies of water, evaluate the terrain and any slope conditions. Establish a safety zone to ensure that the mower is operated at a safe distance from such hazards. Sometimes, **a distance of two mower widths is sufficient**.



Safety Council OF NORTHWEST OHIO

David A. Varwig, CSP-retired, CUSA, ASSP-Emeritus, and SCNWO Board Member *for* ELSMART Safety Management Assessment Regulatory Training

Safety Council
OF NORTHWEST OHIO

Share this email:

8015 Rinker Pointe Court
Northwood, OH | 43619 United States