

Lightning safety

Applicable regulations

[Occupational Safety and Health Administration Fact Sheet](#)

[Centers for Disease Control and Prevention](#)

[National Weather Service NOAA](#)

Applicability:

This program shall apply to all Arizona State University employees who work outdoors and may be exposed to lightning hazards.

What is lightning?

Lightning is a naturally occurring electrostatic discharge of high voltage between a cloud and the ground, or within a cloud. In the United States, 300 people are struck by lightning annually with roughly 50 people fatally injured from lightning strikes annually. Thunderstorms always include lightning; anytime thunder is heard, assume you are at risk of a lightning strike.

Requirements

Managers and supervisors

Managers and supervisors are responsible for ensuring ASU employees are aware of lightning hazards. Certain employees are required to work outdoors more than others and therefore have greater risk of exposure to lightning. Such employees include:

- ASU Athletics.
- ASU Police Department.
- Building maintenance.
- Groundskeepers.
- Heavy equipment operators.
- Other ASU Facilities Management positions.
- Plumbing and pipe fitting.
- Researchers.
- Roofers.

Lightning is often overlooked as an occupational hazard and all employees need to be equipped with the information necessary to move to a safety when exposed to lightning hazards. Supervisors should alert employees to lightning hazards.

Employees

Proper planning and safe practices are important in order to avoid lightning hazards. If there are signs of an approaching thunderstorm, employees should not begin any task that they cannot quickly stop. Employees should take lightning safety seriously and get to safety when exposed to lightning hazards.

Lightning safety

The following are some steps employees should take to reduce potential injury from lightning:

- Check the forecast before beginning work and reschedule outdoor jobs to avoid being exposed to lightning hazards.
- Follow the 30-30 rule. After you see lightning, count to 30. If you hear thunder before you reach 30, go indoors.
- If unable to get indoors immediately, stay away from bodies of water and isolated trees. Crouch low to the ground in a ball-like position. Lightning is likely to strike the tallest object in a given area.
- Seek shelter in a safe, enclosed shelter such as a building or vehicle.
- Suspend outdoor activities for at least 30 minutes after the last clap of thunder.
- There are currently no systems to predict or detect the first strike of lightning. However, the National Oceanic and Atmospheric Administration, NOAA, Weather Radio broadcasts official Weather Service warnings and other weather hazard information 24/7 from the nearest National Weather Service office.
- Watch for darkening clouds and increasing winds which can indicate developing thunderstorms.

Additional information

Contact ASU EHS Office: asuehs@asu.edu