




SAFETY DIRECTOR BULLETIN



LIGHTNING – PEO SH SAFETY & HEALTH ALERT #38



NEW JERSEY PUBLIC EMPLOYEES OCCUPATIONAL SAFETY AND HEALTH
NJ PEO SH ALERT #38
 Safety & Health Alert
 PREVENTING WORKER INJURIES AND DEATHS INVOLVING LIGHTNING EXPOSURE


ATTENTION: ALL PUBLIC EMPLOYERS
 Please ensure that this information is shared with all appropriate personnel.
 March 2023

Employees may be exposed to serious injury or death whose jobs involve working outdoors in open spaces, on or near tall objects, or near conductive materials (e.g., metal, water).

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 OFFICE OF PUBLIC EMPLOYEES OCCUPATIONAL SAFETY AND HEALTH

In March 2023, NJ PEO SH issued [Safety & Health Alert #38 Preventing Worker Injuries and Deaths Involving Lightning Exposure](#). Every year, lightning strikes and kills workers on or near bodies of water, parks, and athletic fields. High-risk locations include beaches, outdoor pools, marinas, golf courses, athletic fields, parks, and playgrounds.

The alert affirms public employers shall conduct a workplace hazard assessment to determine if hazards are present or are likely to be present. The hazard assessment shall include assessing the potential of employee exposure to hazards of the environment. For outdoor workers, employers can reference OSHA [Fact Sheet 3863 Lightning Safety When Working Outdoors](#).

Leaders of beach and pool lifeguard operations must implement a lightning safety plan that substantially complies with the principles of the [United States Lifeguard Association’s Reference Guideline 006 Lightning Safety](#).

Before beginning any outdoor work, employers should check the National Oceanic and Atmospheric Administration [NOAA weather reports](#) and other sources of forecasts such as weather apps for all weather hazards in the immediate area. However, an app’s ability to monitor lightning is limited by its proximity to a cell phone tower. If multiple people are monitoring lightning, there may be differences in their readings, which could confuse them. Agencies should consider deploying early warning lightning detection systems at beaches, pools, and outdoor athletic complexes.

Employers must ensure outdoor workers are effectively supervised while on duty and that the employer’s ‘weather watcher’ and lightning safety procedures are being followed. Employers must also ensure when weather hazards arise, they can be easily communicated to their employees.

Lightning is unpredictable and can strike up to several miles from its parent thunderstorm. According to NOAA, most lightning victims are not struck during the worst of a thunderstorm but rather before or after the storm reaches its greatest intensity. Height, a pointy shape, and isolation are the dominant factors controlling where a lightning bolt will strike. It is the shape and height of the object that primarily attracts lightning, not the material. However, metal does conduct electricity, so if the metal is struck and you are touching it, your risk of electrocution is increased.

Employers must provide adequate training to employees to work outdoors which includes awareness of understanding lightning risks, characteristics, and precautions to minimize workplace hazards associated with lightning. OSHA Fact Sheet 3863 is a valuable tool when creating a policy and training program.

MSI offers additional resources which include:

- [MSI NOW: Lightning Safety Training](#)
- [MSI Model Policies: Lightning Awareness Safety Program](#)
- [MSI Safety Director Bulletin: Lifeguard – Lightning Safety Best Practices](#)
- [MSI Safety Director Bulletin: Lightning Safety Best Practices](#)