

April 18, 2018

LIGHTNING SAFETY and PREPAREDNESS

PURPOSE/APPLICATION

This Safe Work Practice is to provide guidance in choosing the safest course of action in the event of a lightning storm.

The nature of our business often requires us to work outdoors. Each year lightning kills approximately 10 Canadians and injures 100 to 150. Anytime work is being performed outdoors there may be a potential for serious or fatal injury if proper precautions are not taken during a lightning storm.

Direct strikes are responsible for only 5% of lightning-related deaths and injuries. Two other types of hazardous phenomena are caused by lightning. Ground current and side flash account for 60 to 80% of lightning-related injuries and deaths.

- a. A ground current is set up when lightning hits the ground, spreads out and sends a current through a victim.
- b. Side splash occurs when lightning hits a tall object, travels partly down the object and then jumps to a nearby victim.

PPE

- No additional requirements

TRAINING

- Safe Work Practice Awareness

HAZARDS & CONCERNS

- Exposure to Electrical Energy
- Fires caused by lightning
- Falling trees/poles/tall structures
- Weather conditions



PRECAUTIONS

Supervisors and workers have the responsibility to be aware of the warning signs and the proper course of action in the event of a lightning storm and to take action to prevent harm to themselves and coworkers.

Apply the 30 & 30 Rule

When the sound of the thunder is **30** seconds or less from the lightning it is time to take action.

- Plan for a safe day, check the weather forecast first.
- Watch the skies for developing thunderstorms and listen for thunder.
- Get to a safe place. A safe location is a fully enclosed building with wiring and plumbing. Sheds, picnic shelters, tents or covered porches do NOT protect you from lightning. If no sturdy building is close by, get into a metal-roofed vehicle and close all the windows.
- Do not handle electrical equipment, telephones or plumbing; these are all electrical conductors.
- If caught outdoors far from shelter, stay away from tall objects. This includes trees, poles, wires and fences. Go to a low-lying area but be on the alert for possible flooding.

Allow **30** minutes before returning to your work or function once the lightning storm has passed.



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First aid for lightning victims

- Lightning victims do not carry an electrical charge and can be safely handled.
- Call for help. Victims may be suffering from burns or shock and should receive medical attention immediately. Activate you Emergency Response Plan, Call 9-1-1 or your local ambulance service.
- Give first aid. If breathing has stopped, administer CPR (cardio-pulmonary resuscitation).

REFERENCES / ADDITIONAL INFORMATION

- Environment Canada
- National Weather Service
- Canadian Centre for Occupational Health and Safety

REGULATIONS

General Duty Clause

British Columbia OHS Regulation
Alberta OHS Act
Saskatchewan OHS Regulation

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