

Electrical Storms at Supervised Outdoor Aquatic Sites

Lifesaving Society Standard Approved by the Ontario Board of Directors, May 2005,
Updated June 2022

Standard

Procedure to follow during an electrical storm at a supervised outdoor aquatic site:

1. Upon hearing thunder, clear the site immediately and ask patrons to proceed to the nearest shelter.
2. If a shelter is not provided for staff and patrons, secure and close the site and send patrons to the nearest shelter or car.
3. Outdoor aquatic site staff and patrons are to stay away from objects that conduct electricity, such as reaching poles and umbrellas, and are not to get closer than 30 metres to any wire fence.
4. Operators close the outdoor aquatic site.
5. Patrons may return to the water 30 minutes after the last sound of thunder or after the last bolt of lightning. Staff should document the closing and opening days and times in the facility logbook.

Definitions

Lightning: a flash of bright light produced by an electric discharge between clouds or between clouds and the ground. (The Canadian Oxford Dictionary, 1998 edition.)

Operator: the person designated by the owner of the facility as being responsible for the operation of the facility.

Shelter: a safe place that provides shelter from a storm.

Thunder: a loud rumbling or crashing noise accompanying a flash of lightning, caused by the sudden heating and expansion of gases along the channel of discharge. (The Canadian Oxford Dictionary, 1998 edition.)

Supervised outdoor aquatic site: could include, but not limited to: wading pools, splash pads, beaches, outdoor pools, lakes, ponds, etc.

Background/Rationale

Each year lightning kills two to three Canadians and injures approximately 180 others.

A sudden lightning-producing thunderstorm can occur while you're on the golf course, at the beach or in the backyard. A summer storm during hot-weather conditions increases the danger of a lightning strike. Many people seek refuge under a tower, tree or covered walkway, thinking this will provide adequate protection against a lightning strike.

While taking steps to avoid a direct lightning strike is important, this may not remove the danger completely. More often, lightning will spread along the ground instead of going straight down, so even if you're standing next to a tree or building, you could still absorb the impact of a strike. If you're outdoors during a lightning event, the best course of action is to head indoors or seek shelter in an automobile, while avoiding anything that conducts electricity such as a metal structure, wire fence or electrical power lines.

The Lifesaving Society, in consultation with Environment Canada, determined the appropriate time to evacuate patrons from supervised outdoor aquatic sites and when to let them back in the water.

Implementation

The first and most important thing to remember is that if you can hear thunder, you are within striking distance of lightning. Take shelter immediately, preferably in a house or all-metal automobile (not convertible top). If caught outside far from a safe shelter, stay away from tall objects, such as trees, poles, wires and fences. Take shelter in a low-lying area.

If caught on the water in a small boat with no cabin during thunder and lightning, quickly get to shore. Boats with cabins offer a safer environment, but it's still not ideal.

Remember, there is no safe place outdoors during a thunderstorm. Once in a safe location, remain there for 30 minutes after the last rumble of thunder is heard before resuming your outdoor activities.

Once indoors, stay away from electrical appliances and equipment, doors, windows, fireplaces, and anything else that will conduct electricity such as sinks, tubs and showers. Avoid using a telephone that is connected to a landline or touching devices that are plugged in for charging.

People who have been struck by lightning do not carry an electrical charge and can be safely handled, but victims may be suffering from burns or shock and should receive medical attention immediately. If you come across someone who has been struck, call for medical assistance immediately and, if breathing has stopped, administer mouth-to-mouth or cardiopulmonary resuscitation (CPR).

The Lifesaving Society recommends operators include this procedure in their facility policy and procedures manual, and staff handbooks.

All staff should review this procedure and its application at least once a year during staff training sessions.

More information about electrical storms and other serious weather conditions may be obtained from the Environment Canada website:

<https://www.canada.ca/en/services/environment/weather.html>

Disclaimer

Lifesaving Society Safety Standards are developed using Coroners' recommendations, the latest evidence-based research, and reflect the aquatics industry's best practices at the time the publication was approved.

The purpose of these standards is to encourage swimming pool, waterpark and waterfront owners, managers, operators and regulators to adopt these standards, in order to prevent drownings in aquatic environments.

Lifesaving Society Safety Standards do not replace or supersede local, provincial/territorial legislation or regulations, but they are considered the standard to which aquatic facility operators should work towards, in order to enhance safety within their operations and to prevent drowning.

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