

Risk Management Considerations *for Outdoor Skating Rinks*

Background Information

Outdoor skating rinks are a popular fixture in most municipalities during the Vermont winter. However, the presence of outdoor skating rinks can lead to an increase in liability if they are not properly designed and maintained. Your organization has a duty, as an occupier, to keep the property in a safe condition to accommodate its intended purpose.

Managing the Risk

A) Building the Outdoor Rink Surface Conditions

- Outdoor ice rinks should be constructed on surfaces that are flat and free from mounds, heaves, or other irregularities.
- The surface must also be free of stones and other debris and grass should be cut as short as possible.
- With hard surfaces, such as pavement or concrete, a pre-flooding inspection should take place to identify and repair any cracks or holes and to remove any debris.
- With surfaces such as grass, an inspection should take place to remove any sticks or other debris and a plastic sheet should be placed down prior to flooding, both to hold the water and protect the grass.
- Shovel snow off the rink after every snowfall to ensure safe, even surface conditions.

Equipment:

- Lighting - there should be ample lighting around the rink and it should also be ensured that rink lighting is in working order for night skates (if applicable).
 - Benches must be provided for users to rest and to put on/take off their skates.
 - Waste receptacles also should be available so that garbage isn't left on the ice.
 - Flooding equipment – ensure that proper flooding equipment is readily available and safely stored on site. This would include hoses, shovels and an ice blade for scraping edges and bumps.
 - Ice Resurfacing Machines – if you choose to use an ice resurfacer, you need to ensure that there is enough ice to support its weight. Its dry weight is 7,000 pounds and its weight filled with water is 8,700 pounds. If the ice resurfacer is driven over gravel, bits of gravel may be transferred to the outside ice surface, as well as arena ice surfaces

Flooding

- Flood as often as necessary in order to maintain a smooth, safe ice surface.
- Don't flood the ice surface if it is snowing or if there is snow on the ice surface, as it can result in an uneven and potentially harmful surface when it freezes.
- Always perform a pre-flooding inspection of the ice remove any debris or snow prior to flooding.
- Apply light sprays of water, pre-flush water supply systems to release any build-up and ensure adequate pressure.
- Don't flood on extremely cold days (minus 20 degrees Celsius and below). Flooding in colder temperatures causes ice to crack and boil, resulting in unsafe skating conditions.

Ice Thickness and Conditions

- Outdoor ice rink thickness is recommended at 2 to 2.5 inches.
- Any thickness less than this has the potential to thaw more quickly.



Rink Boards:

- Rink boards serve to outline the skating surface and in the case of hockey, keep the players and the puck in and the spectators out.
- They can also be used to divide the ice into hockey areas and public skate areas.
- Board all rinks intended for hockey – this helps to ensure the puck stays on the ice, reducing the risk of it hitting a bystander or public skater.
- Rink boards should be installed properly without protruding stakes or other materials.
- If boards have fallen down, repair them immediately or remove them.

B) Hazards of Outdoor Rinks:

- All hazards found during inspection should be repaired immediately.
- Rinks should be closed as soon as the hazard is found and remain closed until repairs are completed.
- Common hazards consist of:
 - Cracks.
 - Frost boils.
 - Exposed ground.
 - Chopped up ice surface.
 - Ice shavings.

C) Maintenance and Inspections of Outdoor Rinks

- It is recommended that inspections of outdoor ice rinks be made twice a day to ensure the ice remains safe for use.
- Inspections should be documented, including any repairs or maintenance done or maintenance that should be completed.
- Hazards such as cracked ice, frost boils, exposed ground, or chopped up surface should be repaired immediately and the rink should be posted as closed until the repairs are completed.
- Ice shavings pose a risk to children as they can be tempted to eat them or play in them. Shavings can contain bodily fluids and so it should be posted at the rink that they may be unsafe. Rink workers and maintenance staff should remove shavings as soon as possible and should also be informed of this danger.
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