

Hazard Alert – Ice-resurfacing Machines (Zamboni ©)

The operation and use of ice-resurfacing machines can pose a major hazard to workers. If not properly inspected, maintained and used, there can be significant harm to the operator, workers nearby, the machine and property.

Hazard Summary

A worker was fatally injured when the ice-resurfacing machine he was operating struck him. The worker was in the process of dumping snow/ice from the machine's tank down an embankment, which prevented it from building up on the exterior of the building. It appeared the worker somehow positioned himself in front of the machine while it was still running and was struck when the machine inadvertently moved forward. The worker was dragged down the embankment and pinned underneath the machine. The worker was discovered approximately three hours after the accident occurred and was pronounced dead at the scene.

Contributing Factors

- The ice-resurfacing machine was being cleaned of snow/ice by the operator while it was still running, and in forward gear with the throttle engaged.
- There was no parking brake or any other braking mechanisms functioning on the ice-resurfacing machine at the time of the accident. The dumping area outside the arena did not allow the machine to travel on a level path prior to dumping of snow/ice.
- There was no hazard assessment conducted prior to the accident and a safe work procedure had not been developed for the task.

Recommended Precautions

- Ice-resurfacing machines must be shut down and properly secured from movement prior to any snow/ice cleaning from the machine, or any maintenance work on the machine, as per manufacturer requirements.
- Ice-resurfacing machines must be inspected by a qualified person or firm, at prescribed intervals, as dictated by the manufacturer of the machine.
- A worker shall not enter or remain in a place where there is a danger of entrapment, pinning or being struck unless a safe access is provided, or measures are put in place to control the hazard.
- A worker shall not operate, maintain or clean snow/ice from ice-resurfacing machines until safe work procedures are developed and implemented, and workers are fully trained in such procedures.
- A worker must be appropriately trained by a qualified person or firm in the safe operation, use, and general cleaning of ice-resurfacing machines prior to operation of equipment.
- Ice-resurfacing machines propelled by internal combustion engines (i.e. gas or propane) shall not be operated indoors unless the space is properly ventilated, gas detection systems are installed in the space and the machines undergo emissions testing at manufacturer prescribed intervals. All ice- resurfacing machines must have a functioning seat belt installed and used by the operator at all times while the machine is in operation.