



Labour

HAZARD ALERT

Working and driving on ice-covered water

Background

Working on ice-covered water can be extremely dangerous when proper precautions are not taken. Since 2012, three individuals sustained fatal injuries while working on ice-covered water when the vehicle they were operating broke through the surface of the ice. Two incidents occurred while the employees were building ice roads in the north to provide access to remote communities. The third incident occurred when an employee was working on ice-covered water.

Hazards

Factors that can lead to an accident while working on ice-covered water include:

- not knowing your figures such as the:
 - thickness of the ice cover;
 - Gross Vehicle Weight (GVW) which includes equipment, fuel, cargo and people;
 - minimum ice thickness required for GVW;
 - maximum load allowed on ice cover;
 - maximum vehicle speed on ice cover;
 - minimum distance between vehicles; and
 - maximum parking time on ice cover;
- insufficient understanding of the different types of ice and their conditions;
- failure to test the ice prior to performing work;
- using the wrong equipment and materials;
- lack of safety plans, procedures and guidelines; and
- inadequate education about the inherent danger of working on or around ice-covered water.

Controlling and Eliminating the Hazard

The following measures can help prevent accidents while working on ice-covered water:

- working with another person at all times;
- identifying hazards and understanding safety precautions and basic rescue procedures;
- wearing personal protective equipment and dressing for the climate;
- understanding the ice, its work-load capacities and ways to test it;
- noting sudden and extreme changes in temperature and related ice behaviour; and
- identifying cracks and signs that indicate thin or hazardous ice locations.

Legislative Requirements

To protect the health and safety of employees working on ice-covered water, employers must:

- identify and assess hazards associated with working on ice-covered water;
- implement adequate control measures to address the assessed hazards;
- develop safety procedures for working and operating equipment safely on ice-covered water;
- implement emergency and rescue procedures; and
- train employees adequately.

The Hazard Prevention Program, found in [Part XIX of the COHSR](#), requires employers to identify hazards in the workplace. The Labour Program's [Hazard Prevention Program Guide](#) provides assistance in implementing a hazard prevention program that meets Part XIX of the COHSR.



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Additional resources:

<http://www.ccohs.ca/newsletters/hsreport/issues/2013/01/ezine.html>, Canadian Centre for Occupational Health and Safety

[A Field Guide to Ice Construction Safety](#) (PDF), Department of Transportation of the Government of the Northwest Territories

[FIELD GUIDE to Working Safely on Ice Covers](#) (PDF), Work Safe Alberta

[Travelling, Standing and Working on Ice: Workplace Health and Safety Bulletin](#) (PDF), Work Safe Alberta

[Safety Guide for Operations Over Ice](#), Treasury Board of Canada Secretariat

Hazard Alerts! are messages, notices or warnings for employees, employers and Canadians in general. They provide information about the risks associated with, for example, the handling of hazardous substances, the presence of toxic products or the use of products or objects. Employers must comply with the minimum standards established by Part II of the *Canada Labour Code* and associated regulations.

For further information, please contact the ESDC Labour Program office nearest you or visit our website at: http://www.labour.gc.ca/eng/health_safety/prevention/alerts/index.shtml