

HAZARD ALERT



Excavation and Trenching

In September 2020, a worker was injured after the walls of a trench he entered partly collapsed, burying him up to his waist and causing him to strike his head on a ladder. The trench was over 8 feet deep and was excavated in order to access an underground water line.

Cause

The worker was not properly protected from the trench walls collapsing. The following factors contributed to this workplace incident:

- The trench was greater than 4 feet in depth and required reinforcement of a trench box, shoring or proper sloping.
- The soil had been previously excavated and, as a result, was not as stable as unexcavated soil.
- The excavation equipment and spoils were too close to the trench, thereby adding additional instability to the trench walls.
- A hazard assessment of the site was not carried out prior to the excavation work.
- A lack of supervision and communication led to workers not aware of the risks, including the fact that the location had been previously excavated, prior to excavation work.
- The worker was not wearing a hard hat while in the trench.



Excavated trench involved in the incident, partially collapsed

Legislated Requirements

The following legislative requirements under the *Occupational Health and Safety (OHS) Act* and Regulations apply to this incident;

OHS Act

12(1)(a) An employer shall ensure that every reasonable precaution is taken to protect the occupational health and safety of persons at or near the workplace.

12(1)(c) An employer shall ensure that such information, instruction, training, supervision and facilities are provided as are necessary to ensure the occupational health and safety of workers.

OHS General Regulations

12.2(1) The employer shall ensure that the walls of an excavation or trench are supported by adequate shoring and bracing or caging except when an excavation or trench

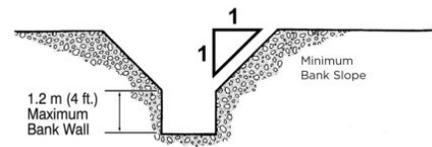
(a) is less than 1,219mm (4 ft.) deep;

(b) is cut in solid rock;

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(c) is sloped to within 1,219 mm (4 ft.) of the bottom of the excavation or trench with a slope at the angle of repose that does not exceed 305 mm (1 ft.) of vertical rise to each 305 mm (1 ft.) of horizontal run; or
(d) is such that workers are not required to enter.



12.2(2) If necessary to provide protection to workers working in a trench, the employer shall ensure that additional shoring and bracing is added to support the increased pressure due to the location of the mobile equipment at the edge of an excavation or trench.

12.2(3) The employer shall ensure that shoring and bracing for excavations or trenches is certified as adequate by a professional engineer and the proof of certification is made available to an officer on request.

12.5(1) The employer shall ensure that excavated material is kept at least 609 mm (2 ft.) away from the edge of excavations or trenches.

Recommended Precautions

Inspecting the worksite prior to commencing excavation is necessary to properly identify hazards. A thorough hazard assessment will identify:

- condition of the soil
- potential impact of weather conditions
- most suitable type of wall support, e.g. shoring, sloping, trenching
- type of ladder required for access
- type of personal protective equipment required
- presence of underground utilities
- presence of hazardous gases



Trench with shored walls

Employers must ensure workers do not access the trench until:

- the walls have been properly shored, braced or sloped
- hazards have been communicated to the workers
- adequate training and supervision is provided
- they are provided with and wearing CSA-approved headwear and footwear
- a worker is available on the surface to observe the workers
- a ladder is in place that extends at least 3 ft above the surface



For more information, please contact:
Workers Compensation Board of PEI
Phone 902-368-5697
Toll Free 1-800-237-5049
wcb.pe.ca



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To report a serious workplace injury, contact the occupational health & safety line at 902-628-7513