

Work Safe Bulletin

Carbon Monoxide

The Cement Finishing Labour Relations Association represents the labour relations and safety interests of the cement finishing industry across Ontario.

The purpose of this document is to provide specific hazard information and promote discussion of safe work practices.

This bulletin does not contain a full analysis of the law, nor does it constitute a legal opinion. CFLRA is not liable for any damages resulting from the use of this information.

If you have any questions, please feel free to contact us at 905-582-9825 or by e-mail at info@cflra.ca

CFLRA

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Background:

Carbon monoxide is created through the use of all combustion engines and direct fired heaters.

Hazard:

Carbon monoxide is a clear odorless gas that you cannot smell or taste. Exposure to carbon monoxide can lead to headaches, fatigue, loss of consciousness, arrested breathing, heart failure and death.

Recommended Operational Procedure:

Each project has unique concrete characteristics that require careful consideration. It is strongly recommended that this issue be discussed at the preconstruction meeting with your safety representative. To reduce the possibility of an incident, it is recommended that the following be considered:

1. The limits established by Ontario Regulation 833 are a maximum time weight average exposure value of no more than 25 parts per million (ppm) in an 8 hour shift (maximum total exposure of 400 ppm) and a short term exposure limit of 100 ppm for a maximum 15 minute period.
2. Ensure that all engines are tuned to minimize CO emissions (check with a gas detector meter).
3. Where possible, minimize or eliminate the operation of other equipment and direct fired heaters during concreting operations (eg: minimize the number of trucks in the workspace).
4. Ventilate with fresh air as required.
5. While electrical equipment is generally not suitable to finish floors, ensure that you make decisions based upon the site condition you face, including the need for continuous air monitoring.
6. Ensure that finishers work in pairs and watch for early signs of headache and fatigue when possible.
7. Consider the use of personal carbon monoxide monitors for workers.
8. Do not filter exhaust gases through water—this does not reduce the carbon monoxide content of the exhaust.

Further references:

- Occupation Health and Safety Act & Regulations for Construction Projects.
- Ontario Regulation 833 Control & Exposure to Biological or Chemical Agents.
- Equipment manufacturers operation / instruction manual.