Issue No. 5

March 2018

Canadian Concrete Finisher

FINISHING NEWS

Use Hearing Protection !

Ontario's Noise Regulation 381 requires the control of work place noise through hearing protection. This regulation introduced a new requirement that limits the work noise exposure to 85 decibels or dBA over an 8 hour work shift. WSIB reports hearing loss as the #1 occupational disease—and it is entirely preventable !

Our Infrastructure Health & Safety Association "Concrete Finisher Labour-Management Safety Committee" recently conducted a study on Concrete Finishing sound levels and determined that all of our work activities slightly exceed this 85 dBA limit. This requires everyone to wear hearing protection when working near any equipment. The values which were obtained indicate that a simple foam ear plug is adequate if it is inserted correctly. Foam inserts which are not seated in your ear correctly will not protect your hearing. To properly insert foam earplugs you should:

1. Roll them between your fingers into a narrow tube
2. With the left hand reach over your head and grab your right ear, slightly pulling it up and out to help ease open the ear canal
3. Place the plug into your ear so that the majority of the plug is in your ear with only a small piece left out.

If the foam ear plugs are inserted properly you shouldn't notice a difference in the ambient sound level if you cup your hands over your ears.

CLICK HERE FOR MORE INFORMATION

CSA A23.1 "2019 Edition Draft" Public review

The final draft of the 2019 national mandatory concrete standard **CSA A23.1/2-2019** is posted for Public Review on the CSA website until **April 8**! This will be your Concrete Finisher work standard until 2025. Anyone is welcome to review and make comments on this draft national concrete standard (you must register and follow the formal steps to submit comments). It is important to understand that requirements are mandatory when written in mandatory language (eg: "shall"). They are not mandatory when they say "should".

Please make sure to review Clause 7 "placing, finishing and curing concrete". Please review pre-construction planning, N-CF concrete, cold weather concreting, floor jointing, F-Numbers and curing requirements. An improvement has been achieved in concrete slump workability wording, but remains non-mandatory.

CLICK HERE TO GO TO THE PUBLIC REVIEW AREA OF CSA

Inside this issue:

HYPERLINKS!

Check out the internet hyperlinks throughout this newsletter online for more information

RED-SEAL CONCRETE FINISHERS ARE COMING TO ONTARIO APRIL 1 2018 !

Ontario has a long history of having some of the most talented and innovative Concrete Finishers in the World. Many of the technologies in use today where either invented or introduced by CFCA concrete floor contractors including imprinted concrete, vacuum dewatering, Super-flat floors, steel fibres, polished concrete, laser screeding, pan floating, dry process sawcutting and shrinkage compensating concrete floors (to name a few). None of these floors get constructed without a skilled and knowledgeable workforce (you!).

We have been promoting skills and knowledge training for all of Ontario's existing Cement Masons and Concrete Finishers. This newsletter is designed to provide state of art information so that we can produce concrete floors that meet the minimum mandatory requirements of the Canadian national standard (with less problems).

To formalize the skills and knowledge requirements for all Concrete Finishers across Canada, Ontario is now harmonized with the Canadian national "Red-Seal Concrete Finisher" trade program along with British Columbia, Alberta, Manitoba, Quebec, New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island. In addition to supporting inter-provincial trade mobility, this program includes federal incentives for both apprentices and employers of registered apprentices.

Existing fully experienced Cement Finishers in Ontario can apply for a Trade Equivalency journeyperson certificate from the Ontario College of Trades until March 31 2018. After this date, Ontario Concrete Finisher journeypersons will be able to challenge the Red-Seal certification exam to achieve this national trade recognition. Note that the "Concrete Finisher" trade has voluntary trade status which does not require any certification at all.

Over the past year 2 years we have participated along with Concrete Finisher tradespeople and training professionals from across Canada to update the Concrete Finisher Occupational Standard and develop a new set of exam bank questions (available 2019). Thanks are extended to all these individuals for their dedication to our "Concrete Finisher" Trade.

Sincere efforts are continuing to make sure that you receive the right training to be the best Concrete Finishers in Canada: ***Red-Seal Professional Concrete Finishers***

Working at heights fall prevention training is mandatory for all construction workers — CLICK HERE

Falls are the No. 1 killer and the leading cause of critical injuries in Construction. These falls occur from ladders, scaffolds, slab edges and through floor & roof openings. It is mandatory to obtain this training to make sure that we return home each day. Take extra care anytime you are working at heights—don't take chances with your life!

The Occupation Health & Safety Act (OHSA) requires employers to create a fall protection work plan. Everyone should be aware of what to do to rescue a worker if someone falls because time is of the essence. It is recommended to practice an emergency procedure to prepare for it. Your safety plan should detail how to prevent you from falling and what you need to do to protect yourself as an integral part of this plan.

> *BEWARE: A worker may be saved from a fall tragedy by a properly secured CSA harness and lanyard, but this can be fatal if the worker is not rescued within 5-15 minutes due to blood constriction caused by the harness. DO NOT remove a harness immediately from a fallen worker—this can result in a heart attack due to de-oxygenated blood rushing to the heart.*

Get the training, plan ahead for incidents, refer to the manufacturers instructions and tie off!

Large increases in "Critical Injuries" in 2017

Ontario MINISTRY OF LABOUR

At the recent IHSA Concrete Floor Safety Meeting it was noted that Critical Injuries have skyrocketed this year to almost double the number of 2016! In discussion with the Ministry of Labour, it was noted that there has been an increase in the number of incidents and there has been a clarification of what is considered a "critical injury":

For the purposes of the Act and the Regulations, a "critical injury" is an injury of a serious nature that,
(a) places life in jeopardy,
(b) produces unconsciousness,
(c) results in substantial loss of blood,
(d) involves the fracture of a leg or arm but not a finger or toe,
(e) involves the amputation of a leg, arm, hand or foot but not a finger or toe,
(f) consists of burns to a major portion of the body, or
(g) causes the loss of sight in an eye. R.R.O. 1990, Reg. 834, s. 1.

The definition of items d and e have been modified to include the following as a critical injury:

1. the fracture of a wrist, hand, ankle or foot
2. the fracture of more than one finger or more than one toe **does** constitute a critical injury
3. the amputation of more than one finger or more than one toe **does** constitute a critical injury

DON'T TAKE ANY CHANCES—NOTIFY YOUR SUPERVISOR OF ANY HAZARDS IMMEDIATELY

CLICK HERE to download the IHSA Safety Magazine !

This months topics include:
Safety Talk: Distracted Driving
Spring into spring start-up
How everyone gains from COR™
Guideline for Health & Safety Representatives (Pull-out)
Managing health & safety
Ministry of Labour blitzes on their way
Together we can stop falls from killing Ontario workers
Keep your momentum going with COR™ workshop program

CLICK HERE to see back copies of previous editions

BEWARE OF CARBON MONOXIDE OVER-EXPOSURE

The Ontario Regulation 833 limits the average exposure to Carbon Monoxide as:
<18 ppm for a 10 hour work day.
<25ppm for a 8 hour work day.
Efforts should be made to keep CO below these limits throughout the work day at all times.

Carbon monoxide emergency limits:
>75ppm: eliminate engine emissions & ventilate below 75 ppm immediately.
> 125ppm: evacuate the work area and ventilate below 75 ppm before resuming work.

Bump test your monitors!

Don't forget to check the accuracy of your CO monitors by bump testing regularly.
You need to calibrate per the manufacturer's instructions (at least every 6 months).

Armoured Floor (1930's)
(with hats and ties)
Send in your favorite Concrete Finishing pictures and we will post them here!

Ontario Regulation 213 "Construction Projects"

Partial list of heating & ventilation clause excerpts:

46. (1) A project shall be adequately ventilated by natural or mechanical means, (a) if a worker may be injured by inhaling a noxious gas, vapour, dust or fume or from a lack of oxygen;

47. (2) No internal combustion engine shall be operated in an excavation or in a building or other enclosed structure unless there is an adequate supply of air for combustion and, (a) the exhaust gases and fumes from the engine are adequately discharged directly outside the excavation, building or other enclosed structure to a point sufficiently remote to prevent the return of the gases and fumes; or

47. (3) An excavation or a building or other enclosed structure in which an internal combustion engine is being operated shall be tested for airborne concentrations of carbon monoxide to ensure that the concentrations do not exceed the applicable limits as determined in accordance with section 4 of Regulation 833 of the Revised Regulations of Ontario, 1990 (Control of Exposure to Biological or Chemical Agents), made under the Act. O. Reg. 345/15, s. 9.

47. (3) An excavation or a building or other enclosed structure in which an internal combustion engine is being operated shall be tested for airborne concentrations of carbon monoxide to ensure that the concentrations do not exceed the applicable limits as determined in accordance with section 4 of Regulation 833 of the Revised Regulations of Ontario, 1990 (Control of Exposure to Biological or Chemical Agents), made under the Act. O. Reg. 345/15, s. 9.

49. (2) No fuel-fired heating device shall be used in a confined or enclosed space unless there is an adequate supply of air for combustion and adequate general ventilation. O. Reg. 213/91, s. 49 (2).

49. (4) No fuel-fired heating device shall be located so as to restrict any means of egress. O. Reg. 213/91, s. 49 (4).

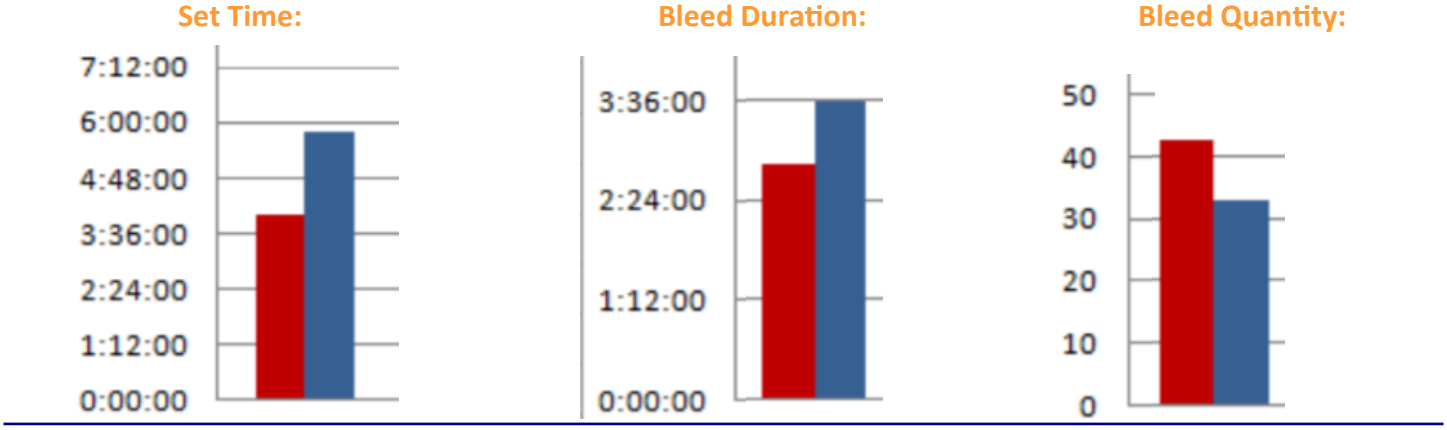
49. (5) A fuel-fired heating device that generates noxious products of combustion shall discharge the products of combustion outside the building or structure in which it is located. O. Reg. 213/91, s. 49 (5).

CLICK HERE for the full Ont. Reg. 213 "Construction Projects"

Cold temperatures cause abnormal concrete set issues

Every Concrete Finisher has spent many long hours at night waiting for concrete materials to set in cold temperatures. A small laboratory study on the effects of cold temperatures on fresh concrete confirmed that set time is delayed when concrete materials get cold (see charts below). Cold concrete materials also exhibited "longer bleed durations" and "lower bleed quantities" (with the same water content). For Concrete Finishers, this means that cold concrete materials may exhibit less "surface bleed water" because it may be stuck inside the partially set concrete (invisible to the human eye). This varies based upon the cement type and water:cement ratio too. While maintaining efforts to achieve specified flatness tolerances, Concrete Finishers should consider a delay with ride-on float machines if the concrete gets cold. Note that CSA A23.1-2014 requires concrete materials be protected from falling below 10°C to the end of the 3 or 7 day curing period.

"N-CF 0.55 W/C GU" NORMAL versus COLD concrete materials temperature



Other Industry News

- *Thanks were extended to Mr. Jim Woods of Apollo Concrete who received the Geoff Kinney Sr. Industry Award for his many years of dedication and leadership in the Concrete Floor Industry & Concrete Finisher Trade!*
- *Congratulations to Tri-Con Haid for winning a Gold Trowel Award of FF65/FL54 on an NHL Size rink!*
- *Remember to download a free copy of the IHSA Concrete Finisher's Health & Safety Manual (**CLICK HERE**)*
- *Please remind everyone about "Cement Burns"—keep wet cement paste off your skin at all times to avoid injury and allergic sensitivity.*
- *Please consider reducing your greenhouse gas emissions by turning off idling engines. While engine scrubbers can significantly reduce CO emissions, they also double the amount of CO2 output. Ensure adequate fresh air ventilation at all times!*
- *DO NOT SIGN CONCRETE DELIVERY TICKETS UNLESS YOU ARE BUYING THE CONCRETE!*
- *Make sure that the concrete air is tested at the point of concrete placement with all cylinder strength tests. The total air content must be less than 3% for machine trowel finished surfaces or delaminations will result.*
- *Protect concrete surfaces from premature drying with a surface evaporation reducing film like EUCOBAR, EVAPRE or SIKAFILM (see FINISHING NEWS Summer 2016).*

Do you have any questions, suggestions, concerns or news to report ? E-mail us at news@cflra.ca

Industry Internet & Phone Directory

Ministry of Labour (Ontario)	+1(877) 202-0008
Cement Finishing Labour Relations Association	(289) 837-1627
Infrastructure Health & Safety Association	(905) 625-0100
Ontario College of Trades	+1(855) 299-0028
Concrete Floor Contractors Association	(905) 582-9825
Ready Mixed Concrete Association	(905) 507-1122