



Mining webinar: Be prepared for Ministry of Labour health and safety initiative on slips, trips and falls in mines and mining plants

March 25, 2019

1 888 730 7821 (Toll free Ontario)
workplacesafetynorth.ca



Welcome to the webinar

- The webinar will begin at **10:00 am/pm Eastern Time**
- For audio, please use headphones or ear buds.
- Please note the '**CHAT BOX**' to the right of the screen and feel free to type in your questions at any time during the presentation.
- Questions may be answered during the presentation, but most will be addressed at the end of the presentation.
- For your reference, this presentation will be emailed to attendees within one business day of the webinar.
- For assistance with the webinar, phone the WSN office at:
1-888-730-7821 ext. 0

Webinar co-hosts

- **Philip Dirige** Senior Specialist, Ground Control
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- **Jerry Wedzicha** Provincial Mining Specialist – Electrical/Mechanic
Ontario Ministry of Labour
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Agenda

- Introduction and Injury statistics
- Slips, trips and falls hazards, categories and controls
- WSN information and resources
- What Ministry of Labour Mining Health and Safety Inspectors will be looking for during the blitz
- Ontario requirements pertaining to falls in the workplace in mines and mining plants (Occupational Health and Safety Act, Regulation 854)
- Q&A

MOL Initiative Overview

The Purpose of the Initiative

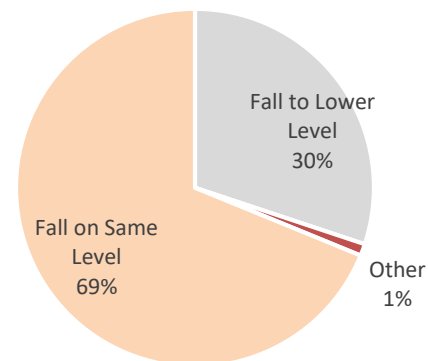
- Raise awareness among workers and employers of health and safety issues involving falls from elevation and ground level including slips and trips in the workplace in mines and mining plants.
- Raise awareness of the importance of having a program for the protection of workers from slips, trips and falls hazards, work practices and controls to slips, trips and falls hazards in mines and mining plants.
- Promote awareness and compliance of mines and mining plants to regulatory requirements.
- Ensure the workplace parties are complying with the OHSA and its regulations

Ontario Mining Industry

WSIB Allowed Lost-time Injuries 2014 - 2018

Event or Exposure Category	RG 110 Gold Mines		RG 113 Nickel Mines		RG 119 Other Mines		Total	
	#	%	#	%	#	%	#	%
Bodily reaction & exertions	82	32%	155	51%	69	42%	306	42%
Contact with objects & equipment	85	33%	70	23%	41	25%	196	27%
Falls	37	14%	26	9%	30	18%	93	13%
Exposure to harmful substances or environments	18	7%	29	10%	11	7%	58	8%
Transportation incidents	26	10%	20	7%	10	6%	56	8%
Other events or exposures	8	3%	5	2%	3	2%	16	2%
Total	256	100%	305	100%	164	100%	725	100%

Fall of Person Lost-time Injuries N=93



Source: WSIB, Claim Count Schema, as of January 31, 2019.

Ontario Mining Industry - Falls

WSIB Allowed Lost-time Injuries 2014 - 2018

Comparison between top 3 Injury types and Accident Source

Accident Source	FRACTURES	SPRAINS, STRAINS, TEARS	BRUISES, CONTUSIONS	Grand Total
623 - GROUND	19	13	7	39
622 - FLOORS	7	7	1	15
620 - FLOORS, WALKWAYS, GROUND SURFACES, UNS	1	3	2	6
625 - STAIRS, STEPS		1	1	2
629 - OTHER FLOORS, WALKWAYS, GROUND SURFACES	1	1		2
627 - SURFACES BELOW GROUND LEVEL, N.E.C.		1		1
555 - ROCKS, CRUSHED STONE	1			1
628 - PARKING LOTS	1			1
554 - DIRT, EARTH		1		1
212 - CABINETS, CASES— DISPLAY, STORAGE		1		1
412 - PIPES, DUCTS, TUBING	1			1
	31	28	11	70

Source: WSIB, Claim Count Schema, as of January 31, 2019.

Ontario Mining Industry - Falls

WSIB Allowed Lost-time Injuries 2014 - 2018

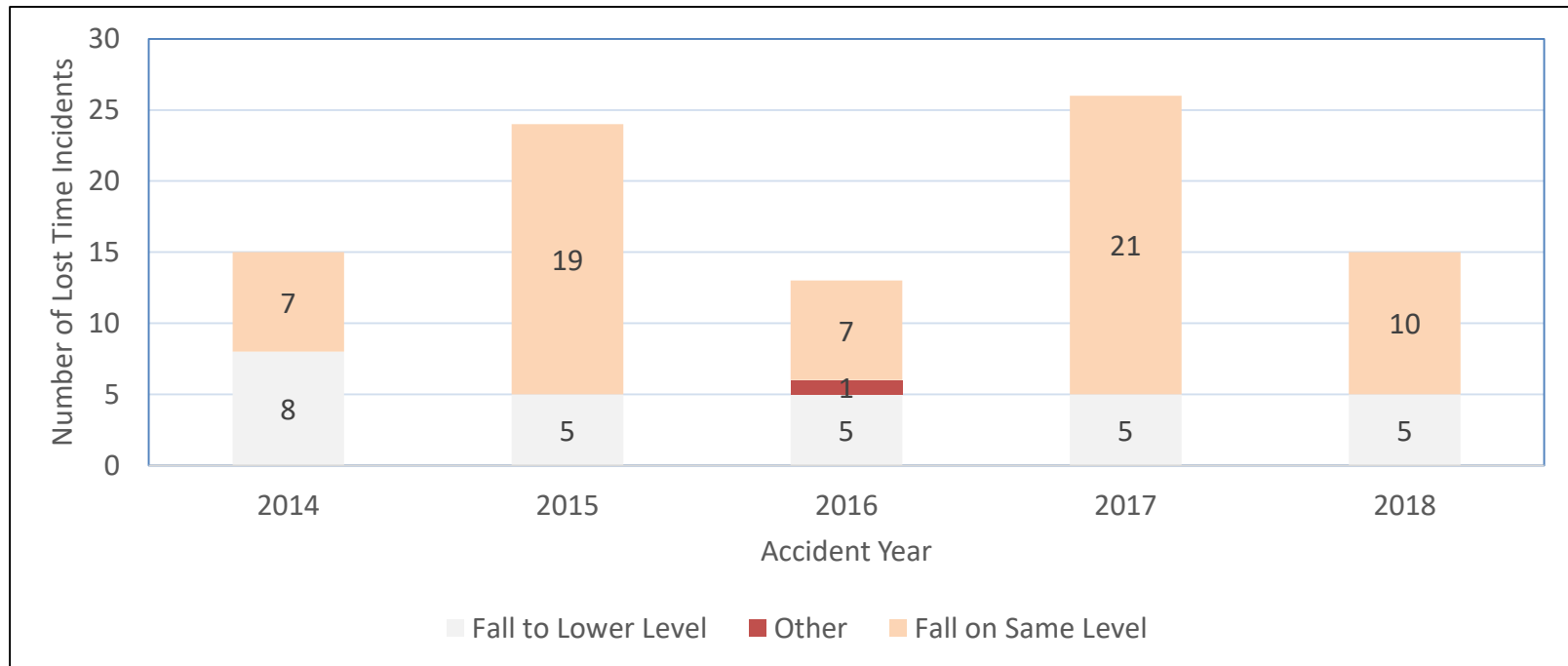
Comparison between top 3 Injury types and Fall Type

Fall Type	FRACTURES	SPRAINS, STRAINS, TEARS	BRUISES, CONTUSIONS	Grand Total
FALL TO LOWER LEVEL	12	6	5	23
JUMP TO LOWER LEVEL	1			1
FALL ON SAME LEVEL	18	22	6	46
	31	28	11	70

Source: WSIB, Claim Count Schema, as of January 31, 2019.

Ontario Mining Industry - Falls

WSIB Allowed Lost-time Injuries 2014 - 2018



Source: WSIB, Claim Count Schema, as of January 31, 2019.



Workplace Fall Hazard Categories

- **Falls on a single level** - occur while a worker remains on a single working level are classified as “slips and falls” or sometimes “slips and trips”
- **Falls to a lower level** - falls from an elevated level to a lower level that can result to workplace fatality and serious fall-related injury
- **Swing Falls** - can be categorized as a fall to a lower level, that occur when a worker falls from an elevated platform while attached to a fall arrest system and the location of a system’s attachment point is not directly over the worker’s head

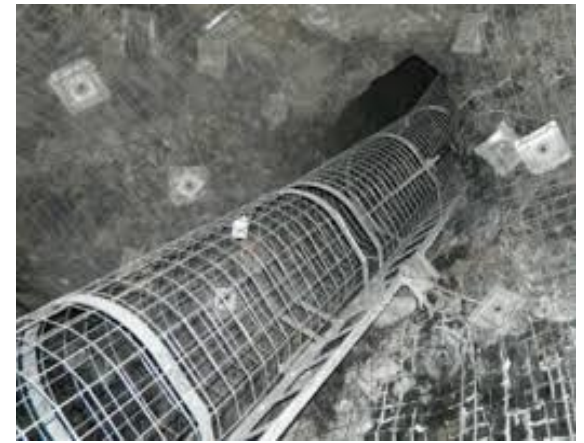
Fall Hazards and Locations in the Workplace in Mines and Mining Plants

- Unguarded opening (mine shafts, ore passes, open stopes, etc.)
- Elevated work platforms with missing or inadequate guard rail system
- Operating equipment
- Working from ladders



Fall Hazards and Locations in the Workplace in Mines and Mining Plants

- Working from scissor lifts or man lifts and elevated platforms without proper safeguards in place
- Condition and maintenance of escape-ways



Fall Hazards and Locations in the Workplace in Mines and Mining Plants

- Uneven ground conditions
- Slippery surfaces (oily, greasy, spills of wet, etc.) or slippery or obscured hazards concealed by mud or water
- Tripping hazards (cluttered workplace, unsecured mats, debris and cables on walkways, unsuitable footwear, etc.)
- Others



Factors that can affect Fall Hazards

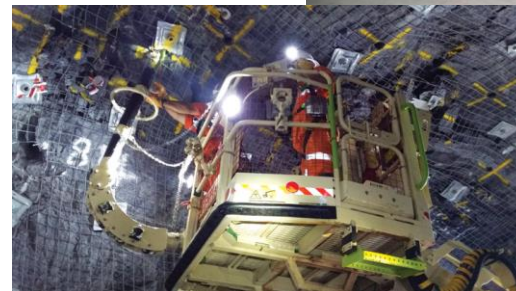
- Control conditions (e.g. barricades, travel restraint system on platforms such as railings, etc.)
- Equipment conditions (ladders, manlift, scissor deck, Alimak platform, etc.)
- Fall arrest system conditions (e.g. anchor points, harness, lifeline, lanyard, shock absorber, fall arrestor, etc.)
- Workplace conditions (e.g. poor housekeeping, working surface conditions, lighting, etc.)
- Human factor (e.g. failure to follow procedures, lack of training, physical limitations, etc.)

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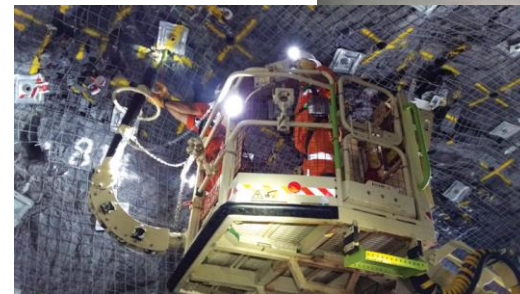
Fall Hazards Controls

- Engineering controls
 - Properly designed barricades, travel restraint system on platforms such as railings, ladders, manlift, scissor deck, Alimak platform, etc.
- Administrative controls
 - Availability of effective policies and procedures
 - Ensure workers are trained
 - Effective supervision



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Fall Hazards Controls

- Safe work practices:
 - Ensure workers follow policies and procedures
 - Effective supervision
 - Housekeeping
- Personal protective equipment (PPE) provided to workers:
 - Ensure that workers are trained on proper use and care of PPEs
 - Ensure that worker are trained to inspect PPEs

WORKING AROUND OPEN HOLES
ALL MINES

Non Routine Hazardous Tasks Procedures	Regulation Procedures	Mine Site Temp Procedure	Mine Site Procedure	All Mines Procedure x
Document Number	Prepared By	Document Owner	Issue Date	Issue Date
	Revised By	Issue Date	Rev. June 1995	September 1997
	Issue Date	Rev. January 2001	Rev. January 2001	Rev. January 2001
	Issue Date	Rev. March 2003	Rev. March 2003	Rev. March 2003

Occupation:
 Mine Development Leader
 Mine Production Leader
 Miner A
 Miner B
 Mine Serviceman A

Objective/Purpose:

Tools and Equipment:
 Stoper, jacking or mechanical hoist
 Rotor dolly
 Slow and fast resin cartridges
 Dime nuts
 Plates
 Cannon grommet
 Screen puncher, if required

Preparation:

1. Check work area and equipment. Scale the area following All Mines Procedure General Scaling.
2. Check the shelf life on the resin cartridge box to ensure that the resin is still usable.
3. Drill rebar hole following All Mines Procedure for drilling with a Jackleg, Stoper or Mechanical Hoist. The drill hole must be the smaller diameter hole which is compatible with the rebar and cartridge diameter selected.



Information and Resources

WSN Fall Prevention Posters - Stop falls before they stop you

<http://www.workplacesafetynorth.ca/resources/stop-falls-they-stop-you>

Free download



WSN Every Worker Health and Safety Magazine - Slips, Trips and Falls No Laughing Matter

<https://www.workplacesafetynorth.ca/sites/default/files/pdf/Every-Worker-Fall-2011-Online.pdf>

16 pp. Free download



Information and Resources

WSN - Fall Protection Leader's Guide for Safety Meeting

<https://www.workplacesafetynorth.ca/sites/default/files/Fall%20Protection%20Leader%20Guide.pdf>

8 pp. Free download

WSN - Sample: Inspection Checklist for Slips, Trips and Falls Specific

http://www.workplacesafetynorth.ca/sites/default/files/Sample%20Inspection%20Checklist%20-%20Slips%20Trips%20and%20Falls%20Specific_0.pdf



Health and Safety Resources

Caution to Users

Many of the resources in this archive were originally prepared by WSN's predecessor organizations for use by industry clients. While much of the information and many of the forms included with them are still valuable, users should recognize that examples, contact information and data such as legislative references may be out of date. The resources are offered as free tools for companies to use in an effort to continuously improve their health and safety systems. But users of these resources also need to ensure that they are aware of the most recent legislation, equipment and processes, as well as current practices.



Inspection Checklist

Erase the Hazard

Identifying fall hazards involves knowing what to look for and where. The sample inspection list provides guidance on where employees and employers should look for slips, trips and fall hazards at their worksite. Inspection sites include:

- Aisle ways and passageways
- Corridors
- Exits and escape ways
- Floors
- Ladders
- Lighting
- Platforms & scaffolding
- Roadways
- Stacking and storage
- Stairs
- Waste disposal

Download the Sample Inspection Checklist - Slips, Trips and Falls

Information and Resources

WSN - Fall Protection: Take Ten to Safety

<http://www.workplacesafetynorth.ca/sites/default/files/Fall%20Protection%20Presentation.pdf>

26 pp. Free download



- MOL Working at Heights Training Program Standard
<http://www.labour.gov.on.ca/english/hs/pubs/wah/>
- MOL Health and Safety Awareness Training for Workers and Supervisors - Working at Heights
<http://www.labour.gov.on.ca/english/hs/training/index.php>
- MOL Fact Sheet - Prevent slips, trips and falls in all workplaces
http://www.labour.gov.on.ca/english/hs/sawo/pubs/fs_falls.php
- MOL calls for action on workplace falls
<http://www.workplacesafetynorth.ca/news/news-post/ministry-labour-calls-action-workplace-falls>

Information and Resources

- WSN - How to apply new working-at-heights training standard to mining sector Free download <http://www.workplacesafetynorth.ca/news/news-post/how-apply-new-working-heights-training-standard-mining-sector>
- Centre for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH) Fall Protection Part 1 DHHS (NIOSH) Publication Number 2004-Self Inspection Checklist
<http://www.cdc.gov/niosh/docs/2004-101/chklists/r271a~1.htm>
- CDC NIOSH Investigation of a Slip/Fall Accident
<http://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/isfa.pdf>
- Canadian Centre for Occupational Health and Safety (CCOHS) - Safety Hazards: Prevention of Slips, Trips and Falls
http://www.ccohs.ca/oshanswers/safety_haz/falls.html
- CCOHS - e-Course on Preventing Falls From Slips and Trips
http://ccohs.ca/products/courses/preventing_falls/&print=true

Ministry
of Labour

Slips, Trips and Falls Initiative

Webinar March 25, 2019

MOL Mining Program



Overview

- Safe At Work Ontario
- Slips, Trips and Falls Initiative
- What to Expect During an Inspection
- Focus
- Falls Awareness Week 2019
- MOL Contact Centre
- Resources

Safe At Work Ontario

- The goal of Ontario's *Occupational Health and Safety Act* (OHSA) is to keep workers safe and healthy. The OHSA sets out the health and safety requirements for workplaces across Ontario.
- Safe At Work Ontario is the Ministry of Labour's compliance strategy that helps promote safe and healthy workplace practices.

Slips, Trips and Falls Initiative

When?

- From March 18 to July 12, 2019, the Ministry of Labour will conduct an initiative focusing on slips, trips and falls in workplaces across Ontario.
 - Phase 1: March 18 to July 12, 2019 – Compliance assistance and awareness campaign with our health and safety partners
 - Phase 2: April 15 to July 12, 2019 – Focused inspections campaign

Why?

- Between 2011 to 2016, “falls” was the second top cause of traumatic fatalities. Sixty-six workers were killed at work due to falls during this time period.
- Falls was the third-highest injury event in 2017, accounting for 20% of allowed lost-time claims with the WSIB.
- This initiative will provide the ministry with an opportunity to promote compliance with the OHSA.

Slips, Trips and Falls Initiative

Where?

- This province-wide initiative will focus on workplaces in the industrial, construction, mining and health care sectors.

What?

- The first phase of the initiative will focus on educating workplace parties on their responsibilities regarding addressing slips, trips and falls hazards inherent to their sector.
- During phase two, inspectors will conduct proactive workplace inspections to review compliance with the OHSA.

What to Expect During an Inspection

- During a proactive inspection, inspectors will enforce the OHSA based on the facts at the time of the inspection.
- An inspector has the right to enter and be granted access to all areas of the workplace.
- When a ministry occupational health and safety inspector arrives at your workplace, they will introduce themselves, explain the reason for the visit and ask to have a worker and management representative accompany them during the inspection.
- The Inspector may conduct an administrative review and a physical inspection of the workplace.

What to Expect During an Inspection

- If an inspector finds a contravention under the OHSA, the inspector will explain the contravention and may refer the workplace to an HSA for compliance assistance.
 - An order may also be issued and the employer must comply.
- Inspectors issue stop work orders where an immediate threat to worker health and safety has been observed.
- A field visit report outlining the details of the visit including orders issued, will be provided to the employer.

For more information, please visit:

https://www.labour.gov.on.ca/english/hs/pubs/ohs_inspections.php

Hazard Focus

- slips, trips and falls are among the leading causes of injuries resulting in workers missing time at work in Ontario.
- Every day, 80 workers in Ontario are injured in a fall – that's one every 20 minutes.
- There are approximately 17,000 lost-time injuries in Ontario each year due to workplace falls.
- 65 per cent of all fall-related injuries are from slips and trips, i.e. same level falls.
- Between 1991 and 2015, 10 workers died in Ontario mines as a result of incidents involving falls.

[Data comes from Workplace Safety North article: MINISTRY OF LABOUR CALLS FOR ACTION ON WORKPLACE FALLS](#)

Hazard Focus

Mining:

- Slips, trips and falls continue to be a cause of worker injury at mines and mining plants. Falls can result from improperly set up or poorly maintained ladders, scaffolding and suspended access equipment. Workers can also be at risk if they aren't wearing fall protection equipment or are not connected to a safe anchoring system. All falls must be addressed to protect workers, including tripping hazards due to poor "housekeeping" or open holes hundreds of meters deep.

Hazard Focus

Preventing such injuries is a key goal of every safe and healthy workplace.
Employers must:

- Provide information and instruction to workers on slip, trip and fall hazards.
- Encourage workers to report slip, trip and fall hazards.
- Identify and assess the risk of job-specific slip, trip and fall hazards.
- Establish controls to eliminate or reduce workers' exposure to slip, trip and fall hazards.
- Ensure the control measures are working.

Enforcement Focus

INSPECTIONS WILL FOCUS ON:

Storage and transport of material

- Layout and assistive devices to control handling demands

Material Handling Practices

- Are procedures, assistive devices in place for set-up, operation, maintenance of equipment?

Access for material handling without undue effort, awkward postures, or risk of falls

- Condition of walkways
- Suitable design of access systems: widths, heights

Consider set-up, production, maintenance



INITIATIVE FOCUS: Measures and Procedures

Measures and procedures in place for the protection from slips, trips and falls in the work place.

Regulation 854 Mines and Mining Plants

Access to Workplaces

- *Safe means of access to a work place (section 46)*
- *Platform more than 1.5 meters above floor requires railings (section 46 (3))*
- *Access by use of a stairway (section 46 (7))*
- *Stairway requirements (Section 46 (9))*
- *Ladder Access (section 46 (8))*
- *Ladder requirements (section 47)*
- *Fixed ladder requirements (section 48)*
- *Portable ladder (section 49)*
- *Ladders being used in the shaft (section 50-51)*

INITIATIVE FOCUS: Escape Ways

Requirements for escape way maintenance

Regulation 854

- *The escape way shall be inspected at least once a month by a competent person who shall give a written report of such inspection to the supervisor in charge of the mine. (section 37 (2)(F))*

Escape must be available and in safe condition should an emergency occur.

INITIATIVE FOCUS: Fall Arrest Systems

Fall arrest system requirements

Regulation 854

- *Fall arrest systems requirements (section 14)*
- *Raised platform worker protection (section 190)*
- *Bulk material movement worker protection (section 84)*
- *Use of fall arrest when barring material (section 94)*
- *Use of fall arrest during bin work (section 60)*

Occupational Health and Safety Act

- *Employers shall maintain equipment, materials and protective devices in good condition (clause 25(1)(b))*
- *Workers shall use or wear the equipment, protective devices or clothing that the worker's employer requires to be used or worn (clause 28(1)(b))*

INITIATIVE FOCUS: Falls

Protection of Hazardous Areas

Regulation 854

- *Openings which constitute a hazard shall be fenced or guarded (section 59)*
- *The employer needs to establish procedures to ensure that workers are not being exposed to hazards underground by having barricades, fencing or other suitable means (section 68)*
- *Protection of mine openings (section 18)*
- *Mining plans showing mine openings (section 22 (1)(a)(iv))*

INITIATIVE FOCUS: Training

Worker Training

Occupational Health and Safety Act

- *25. (2) (a) An employer shall provide information, instruction and supervision to a worker to protect the health or safety of the worker.*
- Worker training: Inspectors will check that workers were properly trained and supervised to prevent injuries and deaths from falls hazards. They will also check that workers are aware of their right to refuse unsafe work. The training needs to be site specific to protect workers from what they will be exposed to.

Falls Awareness Week 2019

- Falls Awareness Week aims to bring awareness to the falls hazards which exist in every workplace through workplace discussion and participation.
- MOL is encouraging workplaces to participate in the second annual Falls Awareness Week from **May 6 – 10, 2019**
- During this week, employers and workers are encouraged to stop work for 15 – 30 minutes to have a safety talk about fall hazards in the workplace
- Use OHS system partner resources to develop material for a safety talk on how to prevent slips, trips and falls in your workplace



MOL Contact Centre

1-877-202-0008

- Call between 8:30 a.m. to 5 p.m. Monday to Friday for general inquiries about workplace health and safety.
- Call any time to report critical injuries, fatalities or work refusals.
- **Always call 911** in an emergency.

Resources

- [WorkPlace Safety North WSN](#), Call for action on workplace falls

<https://www.workplacesafetynorth.ca/news/news-post/ministry-labour-calls-action-workplace-falls>

- [Regulations for Mines and Mining Plants](#), E-Laws

<https://www.ontario.ca/laws/regulation/900854?search=Reg+854>

The Falls page is now published

- <https://www.labour.gov.on.ca/english/hs/topics/falls.php>
- <https://www.labour.gov.on.ca/french/hs/topics/falls.php>

For compliance resources,
please visit:

Ontario.ca/StopFalls

Thank you

Thank you for attending today and helping make workplaces safer.

WSN Contact Information

1-888-730-7821 Toll free Ontario

705-474-7233

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workplacesafetynorth.ca

Twitter: [@WSN_news](https://twitter.com/WSN_news)

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