

Occupational Health and Safety Branch

Heightened Enforcement Campaign on Fall-Related Hazards in the Construction Industry – Preliminary Report

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Safe At Work Ontario
Enforcement > Compliance > Partnership >

Ministry of Labour

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Introduction

On January 18, 2010, the Ministry of Labour launched a 90-day provincial compliance and enforcement campaign to ensure that workplace parties were complying with the *Occupational Health and Safety Act* (OHSA) and its regulations. Enforcement campaigns are a key part of *Safe at Work Ontario*. The campaigns are intended to raise awareness of known workplace hazards, improve workplace health and safety culture and promote compliance with the *Occupational Health and Safety Act* (OHSA) and its regulations. The overall goal is to promote a long-lasting increase in compliance and a decrease in injury and fatality rates.

The heightened enforcement campaign on fall-related hazards targeted provincially regulated construction projects, diving operations and window cleaning activities where a worker may have been exposed to a fall-related hazard. Over the course of the campaign, ministry inspectors ensured that:

- Workplace parties (e.g., owners, constructors, employers, supervisors and workers) were complying with the OHSA, Construction Projects Regulation (O. Reg. 213/91), Diving Operations Regulation (O. Reg. 629/94), Window Cleaning Regulation (R.R.O.1990, Reg. 859) and Roll-Over Protective Structures Regulation (R.R.O.1990, Reg. 856);
- Adequate measures and procedures for the safe use of equipment were in place where a worker may use a fall protection system; and
- A worker who may use a fall protection system was adequately trained in its use.

This report provides an overview of compliance trends discovered during the enforcement campaign. It also recommends practical solutions to help Ontario’s construction industry achieve compliance with the fall protection requirements under the OHSA and reduce the number of traumatic fatalities and injuries due to falls.

Background

Ontario continues to have one of the lowest lost time injury (LTI) rates in Canada’s construction industry, 1.37 LTIs per 100 employed construction workers (2008).

Table 1: Lost Time Injury Rate in the Construction Industry by Province (per 100 employed construction workers) (2000 to 2009)

Year	Canada (Federal)	BC	AB	SK	MB	ON	PQ	NB	NS	PEI	NFLD
2000	3.60	6.40	4.30	6.80	5.70	1.70	4.40	1.90 ¹	2.90	5.40	4.10
2001	3.70	5.80	4.40	6.00	5.50	1.90	4.90	2.00 ¹	3.20 ²	4.20	5.70
2002	3.50	5.20	4.30	6.00	6.10	1.80	4.60	1.70 ¹	3.00 ²	3.70	5.20
2003	3.30	5.20	3.90	6.10	6.10	1.60	4.50	1.90 ¹	3.10 ²	3.50	4.50
2004	3.30	5.40	3.20	5.00	5.90	1.80	4.60	1.80 ¹	2.70 ²	3.20	3.80
2005	3.20	5.11	3.18	5.34	6.60	1.58	4.20	1.71 ¹	2.87 ²	2.21	3.41

¹ New Brunswick has a three-day waiting period for compensation benefits, unless the employee is off for more than 5 weeks.

² Nova Scotia has a two-day waiting period for compensation benefits, unless the employee is off for more than 4 weeks. For all other jurisdictions, compensations benefits are payable starting the day after the injury.

Year	Canada (Federal)	BC	AB	SK	MB	ON	PQ	NB	NS	PEI	NFLD
2006	3.10	5.32	3.20	4.53	6.88	1.45	3.78	1.79 ¹	2.85 ²	1.72	3.04
2007	2.00	5.19	3.10	4.50	5.91	1.38	3.33	1.78 ¹	2.79 ²	1.60	2.74
2008	2.75	4.78	2.57	4.08	5.63	1.37	3.03	1.85 ¹	2.49 ²	1.24	2.17

Source: Infrastructure Health and Safety Association

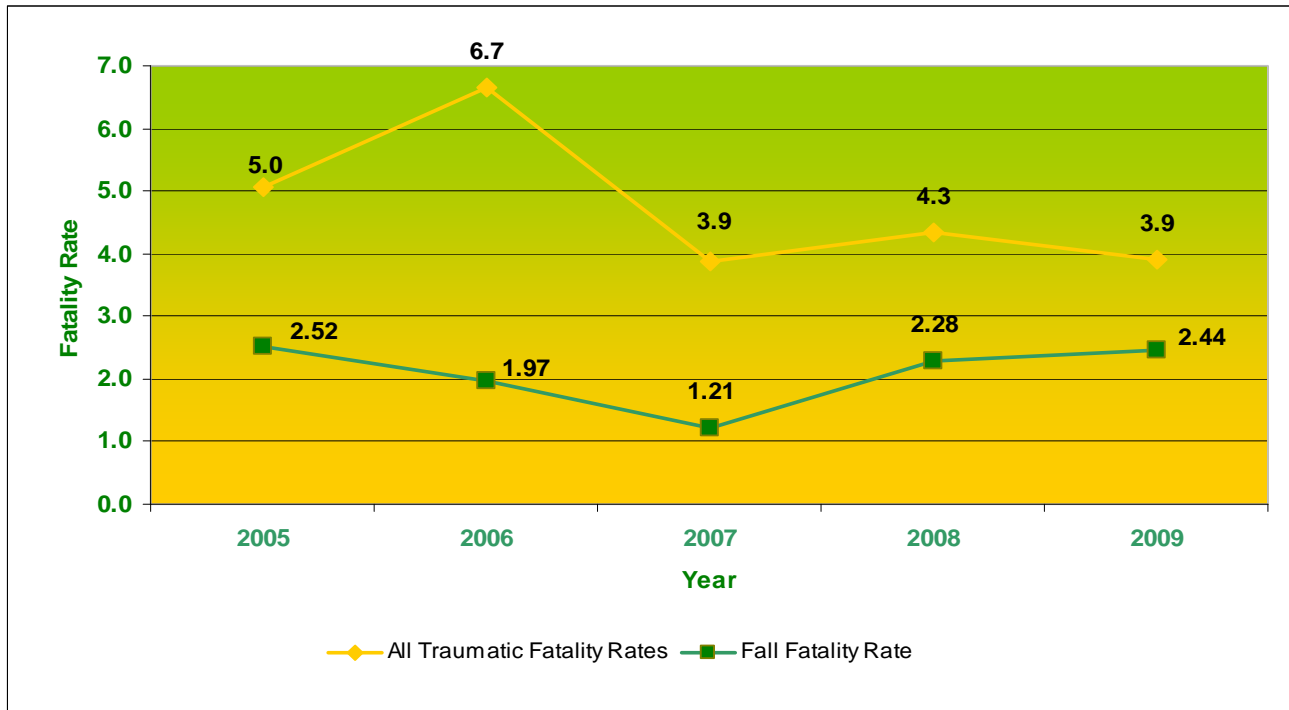
Table 2: Construction fall-related fatalities (2005 to 2010)

Year	2005	2006	2007	2008	2009	2010 YTD ³
Traumatic fatalities, all causes	20	27	16	19	16	4
Traumatic fatalities, falls	10	8	5	10	10	4 ⁴
Percent of total	50%	30%	31%	53%	63%	100%

Source: Occupational Health and Safety Branch, Ministry of Labour

Figure 1 shows that while Ontario appears to have experienced an overall decrease in traumatic fatality rates since 2006.

Figure 1: Ontario Construction Industry Fatality Rates per 100,000 workers, 2005 to 2009



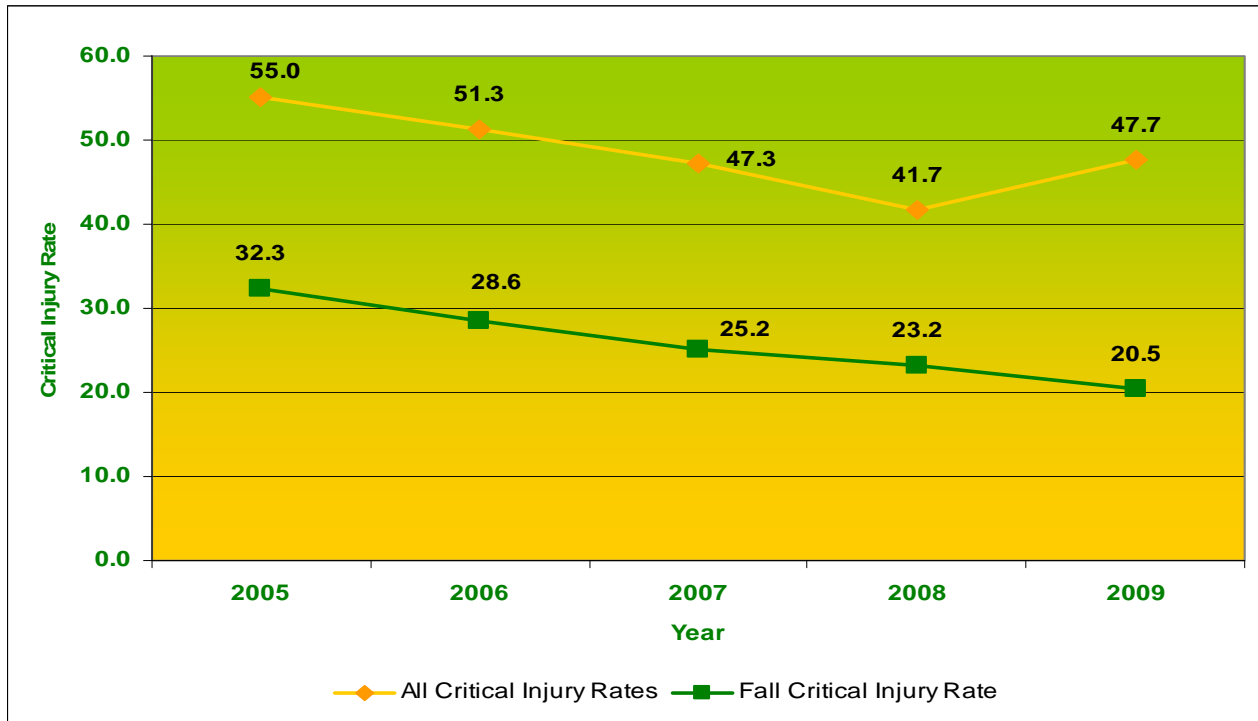
Source: Occupational Health and Safety Branch, Ministry of Labour

Since 2005, Ontario’s construction industry has experienced steady improvements in critical injury rates due to falls. Overall, these rates have improved an average of 3% per year since 2005.

³ Source MOL, as of May 5, 2010

⁴ Preliminary information regarding one of the fatalities indicates the cause of death was due to a fall from height. Total may change subject to confirmation from the Office of the Chief Coroner.

Figure 2: Critical Injury Rates per 100,000 workers in Ontario’s Construction Industry, 2005 to 2009



Source: Occupational Health and Safety Branch, Ministry of Labour

Fall Protection Requirements under the OHSA

Several regulations under the OHSA prescribe safe work and training requirements to address fall-related hazards in provincially regulated workplaces.

Construction Projects Regulation (O. Reg. 213/91)

O. Reg. 213/91 prescribes the use of guardrails or fall protection systems and other safe work requirements in the event that a worker is exposed to the following fall hazards:

1. Falling more than 3 metres;
2. Falling more than 1.2 metres, if the work area is used as a path for a wheel-barrow or similar equipment;
3. Falling into operating machinery;
4. Falling into water or another liquid;
5. Falling into or onto a hazardous substance or object; or
6. Falling through an opening in a work surface.

In addition, the Regulation requires workers who may use a fall protection system to be adequately trained and given oral and written instructions and workers’ training records to be kept and made available to Ministry of Labour inspectors upon request. The Regulation also requires fall protection systems to comply with specified standards published by the National Standards of Canada that outline technical requirements for fall protection systems.

Diving Operations Regulation (O. Reg. 629/94)

Under O. Reg. 629/94 whenever a stage is used to lower a diver into the water and the stage may fall a distance of more than 10 feet (approximately three metres) or into or onto operating machinery or hazardous substance or object, a fall arrest system must be used. The fall arrest system must be designed in a manner that the stage will be suspended not more than five feet below the location it occupied before the fall. In addition, the stage must be constructed to prevent the occupants from falling out of the stage.

Window Cleaning Regulation (R.R.O.1990, Reg. 859)

Reg. 859 prescribes the use of a fall arrest system and other safe work requirements in the event that a worker is exposed to a fall of more than three metres. It sets out duties for owners, employers, supervisors and workers who are engaged in window cleaning activities where a suspended scaffold, boatswain’s chair or similar single-point suspension equipment is to be used. The Regulation also requires an employer to establish and maintain a safety training program for workers on the use of suspended scaffolds, boatswain’s chairs or similar single-point suspension equipment. The program must include information regarding the safe use of fall arrest systems.

Roll-Over Protective Structures Regulation (R.R.O.1990, Reg. 856)

Reg. 856 prohibits the use or operation of a machine unless it is equipped with a roll-over protective structure and restraining device⁵ that meets criteria specified in the regulation. It also mandates the use of a restraining device belt during the use or operation of a machine in order to protect the operator from injury in the event of the machine tipping or rolling over. A machine is defined as a self-propelled vehicle, operated by one or more persons who ride on or in it, that is a tractor, bulldozer, scraper, front-end loader, skidder, dumper, grader or compactor other than an asphalt compactor.

Results of the Heightened Enforcement Campaign

During the heightened enforcement campaign on fall-related hazards, Ministry of Labour inspectors made 7,313 field visits to 4,455 provincially regulated construction projects (including, diving operations and window cleaning activities).

Approximately 63% (2,821) of the workplaces visited during the heightened enforcement campaign were to construction projects where fall-related hazards were identified. Ministry inspectors conducted 3,912 field visits to these sites.

Table 3: Enforcement Activity in the Construction Industry (January 18 to April 16, 2010)

	Construction Projects Where Fall Hazards Were Identified (campaign activity)
Projects Visited	2,821
Field Visits	3,912

⁵ A “restraining device” means a seat belt with or without an over-the-shoulder strap under Reg. 856.

Stop Work Orders Issued for Fall-Related Hazards ⁶	784
Orders Issued for Fall-Related Hazards	3,421
Fall-Related Contraventions associated with Stop Work Orders ⁶	1120
Summonses for Fall-Related Hazards	121
– To Employers	4
– To Supervisors	97
– To Workers	20
Tickets for Fall-Related Hazards	117

Source: Occupational Health and Safety Branch, Ministry of Labour, as of May 4, 2010

More than half (56%) of the orders issued during the campaign were for violations relating to missing or improper use or maintenance of guardrails, non-suspended scaffolds and fall protection systems (see Table 4). The top 4 orders reflect a lack of appropriate supervision on construction projects, as they indicate that the elements to keep workers safe were not in effect. The OHS and its regulations require that employers and supervisors ensure that protective devices and other measures and procedures are in place for the protection of workers. Adequate supervision means that details like guardrails and other fall protection measures are in place and workers are adequately trained in hazard awareness. Eighty percent of the summonses issued for fall-related hazards were to supervisors for lack of adequate supervision (see Table 3).

Table 4: Orders Issued for Fall-Related Hazards (campaign activity)

Order Description	Orders Issued	Percent of Total Orders Issued (%)
<i>Guardrails</i>	853	25
<i>Non-Suspended Scaffolds</i>	629	18
<i>Fall Protection Systems</i>	442	13
<i>Worker Training and Records</i>	296	9
Ladders	294	9
Stairs	237	7
Elevating Work Platforms	101	3
Suspended Scaffolds and Boatswain's Chairs	76	2
Window Cleaning	54	1
Others ⁷	439	13
All Orders Issued for Fall-Related Hazards	3,421	100

Source: Occupational Health and Safety Branch, Ministry of Labour, as of May 4, 2010

⁶ As of May 11, 2010

⁷ Refers to various sections of the OHS and its regulations targeted during the campaign that require fall prevention measures that are not mentioned in the table, e.g., flat roofing work, platforms, runways and ramps, etc.

Construction Sector Results for Fall-Related Hazards

Of the 2,821 field visits conducted to construction projects where fall hazards were identified, the construction sectors that were visited the most were industrial, commercial and institutional (ICI) building construction (1,578, 40%), single family housing (1,125, 29%), and apartment and multiple housing (658, 17%) (see Table 5). These sectors accounted for 86% of the field visits conducted and approximately 94% of the total fall-related orders issued during the campaign.

Table 5: Top 3 Construction Sectors Visited (campaign activity)

Top 3 Sectors Visited	Number of Field Visits	Number of Fall-Related Orders Issued
ICI Building Construction	1,578	1,206
– <i>Industrial Construction</i>	203	125
– <i>Commercial Construction</i>	921	694
– <i>Institutional Construction</i>	454	387
Single Family Housing	1,125	1,428
Apartment and Multiple Housing	658	576
Total for All Sectors	3,912	3,421

Source: Occupational Health and Safety Branch, Ministry of Labour, as of May 4, 2010

Table 6: Number and Percentage of Projects Visited with Orders and Fall Related Orders (Top 3 sectors only)

Construction Sector	Project Premises Visited	Project Premises With Fall-Related Orders	Percent Projects Visited With Fall-Related Orders
ICI Building Construction	1124	508	45%
– <i>Industrial Construction</i>	150	55	37%
– <i>Commercial Construction</i>	657	299	45%
– <i>Institutional Construction</i>	317	154	49%
Single Family Housing	796	491	62%
Apartments/Multifamily Housing	456	212	46%

Source: Occupational Health and Safety Branch, Ministry of Labour, as of May 4, 2010

Conclusion – Strategies to Improve Compliance

The recently concluded heightened enforcement campaign on fall-related hazards in the construction sector was one of the longest and most extensive blitzes undertaken by the Ministry of Labour. Information collected from this campaign will form an important baseline to measuring the success of strategies developed to address its findings. The ministry recognizes the need for effective and

practical solutions to improve compliance with fall protection requirements and reduce the number of fall-related fatalities and injuries across Ontario.

Results of the heightened enforcement campaign indicate the following:

- Eighty percent of the summonses issued for fall-related hazards were to supervisors indicating a lack of adequate supervision on construction projects. More than half of the orders issued for fall-related hazards were related to missing or improper use or maintenance of non-suspended scaffolds, guardrails and fall protection systems. These results indicate that safe work measures and procedures needed to keep workers safe were not in place.
- It also indicates that workers and supervisors are not aware or adequately trained on fall-related hazards and general safe work measures and procedures.
- Approximately 94% of the fall-related orders issued during the campaign were to industrial, commercial and institutional building and residential construction projects (single family housing and apartment and multiple housing), indicating that there are compliance issues across construction sectors.

The Ministry of Labour will work with health and safety partners such as the Provincial Labour Management Health and Safety Committee, Workplace Safety and Insurance Board and Health and Safety Association, employer associations and unions to address the findings of the heightened enforcement campaign.

In addition, the ministry believes that greater public awareness and participation is needed to ensure employers, supervisors and workers comply with occupational health and safety requirements. This includes increasing capacity to communicate and publish occupational health and safety materials in languages other than English and French in an effort to reach workers and the public in their own languages.