Overview of the Province of Ontario’s Underground Mine Blitzes 2013 - 2014

WSN Mining Conference
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Ministry of Labour
Province of Ontario
Underground Mine Ventilation Blitzes

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Key Roles of Occupational Health and Safety System Partners

**Ministry of Labour (MOL)** – sets, communicates and enforces occupational health and safety standards as a means of reducing and eventually eliminating work-related deaths, injuries and illnesses, while encouraging greater workplace self-reliance; it also develops, coordinates and implements strategies to prevent workplace injuries and illnesses and set standards for health and safety training.

**Workplace Safety and Insurance Board (WSIB)** – administers the Workplace Safety and Insurance Act, 1997 (WSIA); provides compensation/benefits to injured workers or their survivors; supports early return to work; promotes occupational health and safety and supports/collaborates with MOL and the Chief Prevention Officer.

**Health and Safety Associations (HSAs)** – provide occupational health and safety support services (training, consultation clinical services and workplace audits) to employers and workers.
Overview of the Occupational Health and Safety Act (OHSA)

The OHSA was enacted on October 1, 1979

Its main purpose is to protect workers from workplace health and safety hazards, and its key features include the following:

- Sets out basic duties of employers, supervisors and constructors.
- Sets out basic duties and rights for workers.
- Establishes controls for toxic substances.
- Sets out duties regarding workplace violence and workplace harassment.
- Sets out a procedure to follow when a worker refuses unsafe work.
- Prohibits reprisals by employers.
- Provides for enforcement by inspectors.
- Establishes offences and penalties.
- Provides authority to make regulations.
Regulation 854 Mines and Mining Plants under the OHSA

Regulation 854 (Mines and Mining Plants) under the OHSA sets out specific occupational health and safety requirements for owners, employers, supervisors and workers at mines and mining plants in Ontario.

The regulation consists of the following eleven parts:

i. General Provisions
ii. Fire Protection
iii. Access to Workplaces
iv. Protection of Workers
v. Haulage (motor vehicle)
vi. Explosives (storage, transportation, handling and reporting)
vii. Electrical
viii. Mechanical (including provisions for diesel equipment)
ix. Railroads
x. Mine Hoisting Plants
xi. Working Environment (including provisions for ventilation underground)
The Ministry of Labour and its health and safety system partners are committed to eliminating all workplace injuries.

Safe At Work Ontario is the Ministry of Labour’s (MOL’s) compliance strategy, designed to:

- Improve the health and safety culture of workplaces;
- Reduce workplace injuries and illness;
- Lessen the burden on the health care system;
- Avoid costs for employers and the Workplace Safety and Insurance Board (WSIB);
- Provide a level playing field for compliant companies.
Within the Ministry of Labour’s Occupational Health and Safety Branch (OHSB), there are four sector-specific occupational health and safety programs that oversee enforcement of the OHSA and its 26 regulations:

- Construction Health and Safety Program (CHSP)
- Health Care Health and Safety Program (HCHSP)
- Industrial Health and Safety Program (IHSP)
- Mining Health and Safety Program (MHSP)
Health and Safety Inspection Blitzes
Safe At Work

The Ministry of Labour’s proactive inspection blitzes on sector-specific hazards are designed to raise awareness and increase compliance with occupational health and safety legislation and regulations.

These blitzes are announced in advance and results are reported after they are completed.

Webinars, hosted by Workplace Safety North (WSN), are held to provide information and the opportunity to pose questions to both WSN and the Ministry.

From 2008 to April 9, 2014 there have been 61 blitzes completed by the Ministry of Labour.

Information about the blitzes can be reviewed at the MOL and WSN websites;
http://www.workplacesafetynorth.ca/
<table>
<thead>
<tr>
<th>Date (Duration of Focus)</th>
<th>Program Area(s)</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>May – August 2013</td>
<td>IHSP, HCU &amp; ES</td>
<td>Vulnerable Workers</td>
</tr>
<tr>
<td>May 2013</td>
<td>CHSP</td>
<td>Excavation</td>
</tr>
<tr>
<td>July - August 2013</td>
<td>MHSP</td>
<td>Internal Responsibility System</td>
</tr>
<tr>
<td>September – October 2013</td>
<td>HCU</td>
<td>Musculoskeletal Disorders (MSDs)</td>
</tr>
<tr>
<td>September – October 2013</td>
<td>CHSP</td>
<td>Fall Hazards</td>
</tr>
<tr>
<td>October - December 2013</td>
<td>ES</td>
<td>Retail Services</td>
</tr>
<tr>
<td>October – November 2013</td>
<td>MHSP</td>
<td>Ground Control</td>
</tr>
<tr>
<td>November – December 2013</td>
<td>IHSP</td>
<td>Recycling and Waste Management</td>
</tr>
<tr>
<td>January – February 2014</td>
<td>MHSP</td>
<td>Locking and Tagging in Mine Hoisting Plants</td>
</tr>
<tr>
<td>January 2014</td>
<td>CHSP &amp; IHSP</td>
<td>Construction in Active Workplaces</td>
</tr>
<tr>
<td>February – March 2014</td>
<td>IHSP</td>
<td>Warehousing</td>
</tr>
</tbody>
</table>
Safe At Work Ontario
Internal Responsibility System (IRS) Blitz
July – August 2013
In July and August 2013, ministry inspectors conducted a blitz of underground and surface mines.

They focused on the internal responsibility system (IRS). The IRS is a system in which everyone – employers, supervisors and workers -- all have key roles in ensuring a safe and healthy workplace.

Inspectors checked for compliance with the Occupational Health and Safety Act (OHSA) and its regulations to prevent worker injuries and illness.
Mining inspectors checked for all types of hazards at Ontario mines and mining plants. They also checked that:

- employers were reviewing the workplace's occupational health and safety (OHS) policy at least annually
- programs existed to implement the OHS policy in the workplace
- workers were aware of the OHS policy and their roles and responsibilities in ensuring a safe and healthy workplace
- a functioning JHSC or health and safety representative existed in the workplace, and training was provided to committee members and representatives as required by the OHSA
Internal Responsibility System In Underground and Surface

Inspection activity:

In July and August 2013, Ministry inspectors conducted 114 visits to 103 workplaces.

153 orders under the OHSA and its regulations were issued, including 12 stop work orders to underground mines.

On average, this was 1.35 orders per visit.
## Orders issued under the Occupational Health and Safety Act (OHSA)

<table>
<thead>
<tr>
<th>OHSA Orders</th>
<th>Number of orders</th>
<th>Percentage total orders issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop work order [Sections 57(6)(a)(b)]</td>
<td>12</td>
<td>7.80%</td>
</tr>
<tr>
<td>Failure to maintain equipment in good condition [Sections 25(1)(b)]</td>
<td>8</td>
<td>5.19%</td>
</tr>
<tr>
<td>Failure to provide information, instruction, supervision to worker [Sections 25(2)(a)]</td>
<td>8</td>
<td>5.19%</td>
</tr>
<tr>
<td>Failure to take every precaution reasonable in circumstances for protection of a worker [Sections 25(2)(h)]</td>
<td>6</td>
<td>3.90%</td>
</tr>
<tr>
<td>Failure to prepare a written occupational health and safety policy and develop and maintain a program to implement that policy [Sections 25(2)(j)]</td>
<td>2</td>
<td>1.30%</td>
</tr>
<tr>
<td>Failure to ensure a worker health and safety representative is selected at workplace [Section 8(1)]</td>
<td>1</td>
<td>0.65%</td>
</tr>
<tr>
<td>Failure to inspect physical condition of workplace at least once a month [Section 9(26)]</td>
<td>1</td>
<td>0.65%</td>
</tr>
<tr>
<td>Failure of JHSC to meet at least once every three months at workplace [Section 9(33)]</td>
<td>1</td>
<td>0.65%</td>
</tr>
<tr>
<td>Failure to provide assistance to JHSC to fulfill its functions [Sections 25(2)(e)]</td>
<td>1</td>
<td>0.65%</td>
</tr>
<tr>
<td>Failure to post an OHSA copy in workplace [Sections 25(2)(ii)]</td>
<td>1</td>
<td>0.65%</td>
</tr>
<tr>
<td>Failure of worker to work in compliance with OHSA and its regulations [Sections 28(1)(a)]</td>
<td>1</td>
<td>0.65%</td>
</tr>
</tbody>
</table>
### Orders issued under the Mining Regulation

<table>
<thead>
<tr>
<th>Orders under mining regulations</th>
<th>Number of orders</th>
<th>Percentage of total mining orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyor requirements [Section 196]</td>
<td>27</td>
<td>17.6%</td>
</tr>
<tr>
<td>Electrical practices [Section 155]</td>
<td>8</td>
<td>5.19%</td>
</tr>
<tr>
<td>Requirement to fence or guard machine that has exposed moving part [Section 185]</td>
<td>8</td>
<td>5.19%</td>
</tr>
<tr>
<td>Access to workplace [Section 46]</td>
<td>7</td>
<td>4.58%</td>
</tr>
<tr>
<td>Motor vehicles [Section 105]</td>
<td>5</td>
<td>3.27%</td>
</tr>
<tr>
<td>Operation and housekeeping of magazines [Section 128]</td>
<td>5</td>
<td>3.27%</td>
</tr>
<tr>
<td>Isolation of hazardous area [Section 68]</td>
<td>3</td>
<td>1.95%</td>
</tr>
<tr>
<td>Training [Section 11]</td>
<td>3</td>
<td>1.95%</td>
</tr>
</tbody>
</table>
Internal Responsibility System Underground and Surface Mines

Conclusions:
The IRS promotes a co-operative approach to solving workplace problems and complying with the OHSA and its regulations and the workplace parties working together as a cohesive unit to improve workplace conditions.

Employers and workers are encouraged to contribute to workplace safety. This is to ensure everyone goes home at the end of each work day safe and healthy.

The blitz emphasized the importance of the IRS to the mining industry. The ideology of the IRS promotes self-reliant workplaces and employers. The Ministry of Labour will continue to promote the importance of the IRS during inspection activities in mines.
Internal Responsibility System Underground and Surface Mines

Next steps
Inspectors will continue to focus on the following during routine inspections:

• that an occupational health and safety policy is visible in the workplace

• that a progressive and co-operative approach exist to recognizing and removing hazards in the workplace

• that open communication exist between workers and supervisors

• that there is a JHSC or health and safety representative in the workplace, as required
Safe At Work Ontario
Ground Control October – November 2013
Ministry of Labour (MOL) inspectors conducted an enforcement focus to ensure that mining operations were complying with the Occupational Health and Safety Act (OHSA) and its regulations.

Provincial Mining inspectors focused on the following key priorities:

- how an excavation was designed, including how material would be removed and structurally supported during the mining sequences.

- whether uncontrolled falls of ground or rockbursts were being reported to the Ministry of Labour

- whether a formal program existed between supervisors and workers for communicating issues involving stability of excavations

- whether a formal program existed for mines to verify they have effective protection against unstable excavations
Inspection activity:

In November 2013, Ministry inspectors conducted 53 field visits to 31 workplaces.

Issued 154 orders under the OHSA and its regulations, including 23 stop work orders to underground mines.

On average, this was 2.91 orders per visit.
## Orders Under the Regulations for Mines and Mining Plants

<table>
<thead>
<tr>
<th>Reason for order</th>
<th>Number of orders</th>
<th>Percentage total orders issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to comply with requirement to examine workplace ground conditions [Section 66]</td>
<td>9</td>
<td>5.84%</td>
</tr>
<tr>
<td>Failure to comply with requirement to maintain a mine design that assesses the ground stability of active and proposed workings of a mine [Section 6]</td>
<td>2</td>
<td>1.30%</td>
</tr>
<tr>
<td>Failure to comply with requirement to develop a program to provide for the communication of information between workers and supervisors with respect to ground stability [Section 65]</td>
<td>2</td>
<td>1.30%</td>
</tr>
<tr>
<td>Failure to comply with requirement to develop a quality control program to ensure ground support systems specified in mine design are properly installed and remain effective while in use [Section 73]</td>
<td>2</td>
<td>1.30%</td>
</tr>
</tbody>
</table>
Conclusion and next steps

The results of this blitz confirm the ministry’s need to continue focused enforcement on ground control hazards in underground mines.

The ministry is planning to conduct a follow up ground control blitz in 2014.

The ministry has launched a comprehensive review of the mining sector to further improve the health and safety of workers.
Safe At Work Ontario
Locking and Tagging in Mine Hoist Plants
January – February 2014
During January and February, Ministry of Labour inspectors visited and inspected underground mines to ensure hoisting plants have proper locking and tagging procedures in place to protect workers.

Provincial Mining inspectors focused on Hoisting plants, that carry miners and materials were checked to ensure:

- safety measures are in place when performing repairs or other work to hoisting equipment.
- written procedures are in place for locking and tagging.
- workers are trained on various lockout devices and personal protective equipment needed when working on electrical equipment.
Locking and Tagging in Mine Hoist Plants January – February 2014

Inspection activity:

In January and February 2014, Ministry inspectors conducted 30 field visits to 28 workplaces.

Issued 9 orders under the OHSA and its regulations, including 1 stop work order to an underground mine.

On average, this was 0.3 orders per visit.
## Orders issued under the Occupational Health and Safety Act (OHSA)

### Orders Under the Regulations for Mines and Mining Plants

<table>
<thead>
<tr>
<th>Orders under the OHSA and Regulation</th>
<th>Number of orders</th>
<th>Percentage total orders issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop work order required by [Sections 57(6)(a)(b)] OHSA</td>
<td>1</td>
<td>1.11%</td>
</tr>
<tr>
<td>Compliance plan required by [Section 57(4)] OHSA</td>
<td>1</td>
<td>1.11%</td>
</tr>
<tr>
<td>Failure to take every precaution reasonable in circumstances for protection of a worker [Sections 25(2)(h)] OHSA</td>
<td>1</td>
<td>1.11%</td>
</tr>
<tr>
<td>A competent person shall be appointed to examine the mechanical parts of a mine hoisting plant weekly [Mining Reg. Section 248(2.1)]</td>
<td>1</td>
<td>1.11%</td>
</tr>
<tr>
<td>A competent person shall be appointed to examine the mechanical parts of a mine hoisting plant every 3 months [Mining Reg. Section 248(3)]</td>
<td>1</td>
<td>1.11%</td>
</tr>
<tr>
<td>A safe means of access to a workplace shall be provided by a walkway, stairway or ladderway[Mining Reg. Section 46]</td>
<td>2</td>
<td>2.22%</td>
</tr>
<tr>
<td>Any opening in a floor or other surface which may be a hazard to a worker shall be protected or covered [Mining Reg. Section 54(2)]</td>
<td>1</td>
<td>1.11%</td>
</tr>
<tr>
<td>Hooks used in connection with the suspension of any equipment or material in a shaft or raise or over a worker shall be choked or equipped with a safety latch [Mining Reg. Section 81]</td>
<td>1</td>
<td>1.11%</td>
</tr>
</tbody>
</table>
Conclusion and next steps;

As new mines are developed and older mines are modernized, changes to technology and systems for mine hoisting plants are becoming more complicated. This will require continued inspection by the Ministry of Labour.

The ministry will continue to raise awareness of while inspecting hoisting plants as a part of inspection actives and future blitzes.

Inspectors will continue to ensure workers are trained on various lockout devices and personal protective equipment needed when working on electrical equipment.

Preliminary data will be evaluated to determine future areas of enforcement.
Mining Inspection Blitzes 2014 - 2015

Focus on:

Explosives Surface and Underground Mines
- Maintenance/Inspection of explosive magazines and equipment
- Procedures for safely disposing damaged explosives
- Proper handling (transporting, loading)
- Reporting of mishandling of explosives

Ground Control Surface and Underground Mines
- Stability of development heading faces in underground
- Unsupported faces
- Surface mines the provisions for inspection of the working face

Water Management Underground Mines
- Workplaces free from the accumulation or flow of water
- Managing the drainage of water from high risk areas in the underground environment
- Ensuring excess water is drained to a pumping system capable of pumping water to surface
Mining Enforcement Initiatives

The following areas have been identified as additional areas of focus:

- Dust Management/ventilation - surface and underground operations.
- Mobile Equipment/Remote Controls – surface and underground.
- Asbestos program and inventory – mining plants.

Priority will also be given to vulnerable workers, small businesses, and young workers typically found in small surface mines and diamond drill operations.
Thank you

Questions & Comments

This document is not intended to replace the OHSA or the regulations and reference should always be made to the official version of the legislation.

It is the responsibility of the workplace parties to ensure compliance with the legislation. This document does not constitute legal advice. If you require assistance with respect to the interpretation of the legislation and its potential application in specific circumstances, please contact your legal counsel.

Ministry of Labour inspectors, will apply and enforce the OHSA and its regulations based on the facts as they may find them in the workplace.