Ministry of Labour

Safe At Work Ontario

Enforcement › Compliance › Partnership ›

Specialized Professional Services

2015–2016

Ontario

ISSN 1923-6271 (Online) I June 2015

Contents

Introduction

Safe At Work Ontario is a Ministry of Labour (MOL) initiative to raise awareness about, and increase compliance with, Ontario's Occupational Health and Safety Act (OHSA) and its regulations.

As part of *Safe At Work Ontario*, the ministry develops annual sector-specific enforcement plans that focus on hazards and outline what inspectors will focus on during inspections.

The Specialized Professional Services Work Plan outlines the ministry's enforcement initiatives to protect Ontario's workers from occupational injury and illness.

Every year the ministry holds consultations to shape and improve its occupational health and safety compliance strategy and build closer partnerships with its stakeholders. These sessions:

- help the ministry to improve its approach
- better meet the public's needs
- provide an opportunity to learn from the ministry's partners
- obtain feedback on how the program is working
- increase support for new directions and
- identify areas for improvement.

The Specialized Professional Services Work Plan for 2015−2016 describes hazards and compliance issues, and the ministry's enforcement focus for inspection in all sectors for the upcoming fiscal year.

The plan also acknowledges recent changes to the OHSA that will impact:

- occupational health and safety
- workplace parties and
- the ministry's enforcement practices.

The basic health and safety awareness training is mandatory for every provincially regulated worker and supervisor as of July 1, 2014. This is required under Ontario's Occupational Health and Safety Awareness and Training Regulation, O. Reg. 297/13.

Under the OHSA, a worker is defined as a person who performs work or supplies services for monetary compensation. This does not include an inmate of a correctional institution or like institution or facility who participates inside the institution or facility in a work project or rehabilitation program.

In 2014, the definition of worker in the Occupational Health and Safety Act was expanded to cover unpaid co-op students, certain other learners and trainees participating in a work placement in Ontario.

Specifically, the new definition of worker includes:

- unpaid secondary school students who are participating in a work experience program, authorized by the school board that operates the school in which the students are enrolled,
- other unpaid learners participating in a program approved by a post-secondary institution, and
- any unpaid trainees who are not employees for the purposes of the Employment Standards Act, 2000 (ESA) because they meet certain conditions.

Volunteers are not covered by this definition of worker.

Please refer to the e-Laws website to download a copy of the OHSA and its regulations.

This work plan contains a brief description of some of the main topics an ergonomist, occupational hygienist, engineer or radiation protection officer may address in the workplace. It provides a general overview of the ministry's focus even though each workplace is unique and the circumstances may result in a different inspection focus.

The Sector Trends analysis for each sector outlines the MOL activities for review by stakeholders.

You are encouraged to familiarize yourself with this plan and share copies of it with others in your workplace.

Sector Plans for MOL programs are also available online.

Ontario provides a toll free province-wide number to report unsafe work practices and workplace health and safety incidents. Call the MOL Health & Safety Contact Centre toll free at 1-877-202-0008.

- Call any time to report critical injuries, fatalities or work refusals.
- Call 8:30 a.m. – 5:00 p.m., Monday – Friday, for general inquiries about workplace health and safety.
- In an emergency, always call 911 immediately.

Note: This document does not constitute legal advice. To determine your rights and obligations under the Occupational Health and Safety Act (OHSA) and its regulations, please contact your legal counsel or refer to the legislation at e-Laws.

The Specialized Professional Services Unit

The Specialized Professional Services (SPS) Unit provides technical support and expertise to the regional staff in the industrial, construction, mining and health care programs.

The SPS provides services in five key areas:

1. ergonomics
2. occupational hygiene
3. engineering
4. radiation protection
5. emergency management

The SPS's key responsibilities include:

- enforcing occupational hygiene, safety and ergonomics in workplaces
- providing expert professional advice on engineering, occupational hygiene, radiation protection and ergonomics for the ministry's enforcement activities
- developing guidelines and best practices documents in partnership with health and safety associations (HSAs) and other professional organizations pertaining to risks associated with musculoskeletal disorders (MSDs), occupational disease, and exposure to complex machinery and equipment, chemicals, and radiation.
- Ergonomists, Occupational Hygienist and Engineers contribute to the development of standards, guidelines, regulations, codes of practice and operating policies within their field of expertise.

1. Ergonomics services

Description

Ministry of Labour ergonomists provide technical support to ministry inspectors and conduct inspections focusing on ergonomics to protect workers from ergonomic-related hazards.

Occupational ergonomics focuses on interactions between workers and elements in their workplaces. These elements can include equipment, work stations, work processes and environmental influences.

Effective ergonomics optimizes worker well-being and overall performance, while a lack of attention to ergonomics can lead to musculoskeletal disorders (MSDs) and cause acute injuries such as falls, burns and vehicular accidents.

Challenges are posed by Ontario's changing workforce demographics and ongoing evolution of workplaces, equipment and technology. This makes it even more crucial for workplaces to address ergonomics and MSD prevention.

Workplace parties can refer to the following documents when addressing MSD issues:

- MSD Prevention Guideline for Ontario
- the guide's accompanying Resource Manual and Toolbox and
- sector-specific resources available through Ontario's health and safety associations

For more information, see the ministry's Musculoskeletal Disorders / Ergonomics website.

The ergonomics work plan for 2015−2016 includes an inspection component that supports the *Safe At Work Ontario* initiative as well as investigative support to Inspectors in response to events; Ergonomists:

- initiate *Safe At Work Ontario* visits to workplaces with MSD and ergonomic-related hazards and/or have a history of MSDs
- support inspectors who are conducting *Safe At Work Ontario* inspections
- support relevant *Safe At Work Ontario* blitzes with ergonomic and MSD hazard information
- participate in regional inspection initiatives and
- conduct investigations into work refusals and complaints, and support investigations into fatalities and critical injuries

Injury and illness trends

Musculoskeletal disorders continue to be one of the most common lost time injuries at work in Ontario.

In 2013, MSD claims represented:

- 37 per cent of all lost time injury (LTI) claims
- 33 per cent of all days lost
- 30 per cent of all LTI claim costs for Schedule 1 workplaces and
- 33 percent of all LTI claim costs for Schedule 2 workplaces.

Note: Schedule 1 employers are those for which the Workplace Safety Insurance Board(WSIB) is liable to pay benefit compensation for workers' claims. Schedule 1 employers are required by legislation to pay premiums to the WSIB.
Schedule 2 employers are employers that self-insure the provisions of benefits under the Worker Safety Insurance Act.

This equated to:

- more than 20,000 claims
- more than 430,000 days lost and
- more than $65.5 million in Workplace Safety and Insurance Board (WSIB) costs.

The decline of the MSD LTI rate for schedule 1 from 2003 to 2013 was 56 per cent.

Attention to MSDs is essential to assist in the ongoing decline of the overall LTI rate in Ontario.

By program in 2013, MSD claims represented:

- 36.3 per cent of all lost-time injury claims in the industrial sector[1]
- 41.2 per cent of all lost-time injury claims in the health care sector[2]
- 32.9 per cent of all lost-time injury claims in the construction sector[3]
- 39.4 per cent of the total lost-time injury claims in the mining sector[4]

Ergonomics inspection focus

In addition to supporting the Ministry's general inspectorate, Ergonomists also conduct proactive ergonomic focused inspections.

Priority is given to workplaces identified as having a history of MSDs and that are known to have MSD or ergonomic-related hazards.

For 2015−2016, ergonomists will focus on:

- workplaces that have a history of MSDs
- vehicle-pedestrian interaction at industrial workplaces, construction projects and mines
- material handling in the electronic waste recycling process
- client repositioning in retirement homes and long term care facilities
- manual material handling and work station design at mining pits and quarries and
- storage and manual materials handling at construction projects.

Ministry inspectors are encouraged to include an MSD component in workplace inspections, when appropriate.

[1] From 2003-2013 the MSD LTI rate in industrial declined by 59 per cent.

[2] From 2003-2013 the MSD LTI rate in health care declined by 50 per cent.

[3] From 2003-2013 the MSD LTI rate in construction declined by 47 per cent.

[4] From 2003-2013, the MSD LTI rate in mining declined by 67 per cent.

Inspectors can request the assistance of ergonomists for any proactive or reactive workplace visit. Ergonomists are based at regional offices across the province.

Inspectors in all program areas conduct workplace inspections to check compliance with the OHSA and its regulations including requirements to prevent hazards that can be related to ergonomics and MSDs.

The table below outlines ergonomic related issues inspectors may address during workplace visits.

Sector	Ergonomics focus
Industrial	• manual materials handling (e.g. lifting, lowering, pushing, pulling and carrying) • manual materials handling while working on ladders • unnecessary manual materials handling due to obstructions • team lifting of heavy objects • use and maintenance of work carts • visibility hazards with mobile equipment • policies, procedures, training, and supervision ***Resources:*** • Video: Manual Materials Handling in Industrial Workplaces • Poster: Safe Lifting • Ladder Ergonomics • Manual Materials Handling at Industrial Workplaces • Back Belts in Manual Materials Handling • Manual Handling of Beer Kegs • Manual Transfer of Mobile Industrial Waste Containers • Vehicle/Mobile Equipment and Visibility Hazards at Industrial Workplaces
Health care	• client handling (lifting, transferring and repositioning clients) • engagement of the joint health and safety committee (JHSC) on MSD hazards • manual materials handling (e.g., lifting, lowering, pushing, pulling and carrying of objects) • providing and maintaining equipment • written measures and procedures, training and supervision • laboratory work stations ***Resources:*** • Video: Client Handling in Health Care • Poster: Safe Client Handling • Client Handling and MSDs in the Health Care Sector • Manual Materials Handling in Health Care Workplaces • Back Belts in Manual Materials Handling • Manual Transfer of Mobile Industrial Waste Containers

Sector	Ergonomics focus
Construction	• emphasizing safe material handling, particularly during access/egress above/below ground level and while climbing ladders • proper storage and movement of material and equipment • maintaining unobstructed work routes • equipment maintenance • boxes not being used as work platforms • training on MSD prevention ***Resources:*** • Video: Manual Materials Handling in Construction • Poster: Construction Sites • Manual Materials Handling at Construction Projects • Back Belts in Manual Materials Handling
Mining	• access to work areas and equipment (including vehicles) • interior of vehicle cabs • roadway conditions • stationary operator work stations • how items are being stored and manually transported • how items such as supplies and equipment are being handled • whether devices are being used to assist in the handling of objects • visibility hazards with mobile equipment ***Resources:*** • Manual Materials Handling in Mines • Back Belts in Manual Materials Handling • Vehicle/Mobile Equipment and Visibility Hazards in Mining Workplaces

2. Occupational Hygiene services

Description

The protection of workers from exposures to hazardous substances is the key focus of the Occupational Hygiene 2015−2016 work plan. In the work environment, workers may be exposed to chemical, biological, and physical agents, which may cause sickness and impaired health. MOL Occupational Hygienists conduct inspections, investigations, and industry-wide air quality surveys to identify and assess the risk factors which contribute to occupational diseases and illnesses among workers. Occupational Hygienists also provide professional and technical support to sector program Inspectors.

Assessment of occupational health hazards and control of associated risks are achieved through enforcement of:

- Occupational Health and Safety Act
- Relevant sections of sector regulations such as confined spaces, noise and personal protective equipment
- Designated Substance Regulation (O. Reg. 490/09)
- Control of Exposure to Biological or Chemical Agents (Regulation 833/90)
- Workplace Hazardous Materials Information System (WHMIS Regulation 860).

On February 11, 2015, the *Globalized Harmonization System of Classification and Labelling of Chemicals* (GHS) came into force in Canada by amending the *Hazardous Products Act* and creating the *Hazardous Products Regulation*. This is known as 'WHMIS 2015'. The occupational hygiene work plan for 2015−2016 includes conducting proactive field visits to workplaces that have both controlled products (WHMIS 1998) and hazardous products (WHMIS 2015) to assist in the implementation phase of this federal legislation and also to determine the current adherence to provincial legislation.

Occupational Hygienists will also participate in blitzes and regional initiatives under the *Safe At Work Ontario* enforcement strategy.

Occupational hygiene inspection focus

Occupational Hygienists provide professional and technical support to the construction, health care, industrial and mining sector programs in proactive and reactive field enforcement and compliance activities. In addition, as part of the *Safe at Work Ontario* enforcement strategy, Occupational Hygienists participate in proactive occupational hygiene initiatives for occupational disease prevention. Occupational Hygienists also participate in sector program blitzes and regional initiatives that have significant occupational hygiene components.

WHMIS compliance initiative

Twenty percent of the Occupational Hygienists' total workplace visits are targeted for proactive visits to various sector workplaces with emphasis on WHMIS compliance to labels, S/MSDS (Safety Data Sheets and Material Safety Data Sheets) and worker education. This initiative will also include communication of components of WHMIS 2015 (GHS).

Occupational Hygienists continue to promote the control of exposure to toxic agents in workplaces through enforcement of the Designated Substances Regulation (DSR), Control of Exposure to Biological or Chemical Agents, and WHMIS regulations. Occupational hygiene workplace interventions will also have emphasis on the measures to control the use of substances that are considered to be carcinogens, sensitizing agents, and reproductive hazards and promotion of toxic exposure reduction through substitution of chemical substances with substances with lower toxicity.

Ongoing program support

In addition to the above initiative, Occupational Hygienists will continue to conduct air quality surveys to support the proposed Occupational Exposure Limits (OELs) and enforcement of adopted OELs.

Occupational Hygienists are designated by Health Canada as Hazardous Products Act Inspectors and have the mandate of conducting investigations related to supplier labels and M/SDSs in Ontario. This includes handling requests from other provinces using the Inter-Jurisdictional Referral (IJR) process.

Construction, Health Care, Mining, and Industrial Inspectors conduct proactive and reactive workplace inspections to check compliance with the OHSA and relevant regulations including those related to occupational hygiene issues. Occupational Hygienists provide professional and technical support to Inspectors during program and regional enforcement and compliance initiatives.

3. Engineering services

Description

Ministry of Labour engineers provide engineering support to ministry inspectors during inspections and investigations involving complex engineering issues. The key health and safety focus for engineering services is workplace safety hazards.

Employers continue to face higher demands to introduce new and advanced technologies due in part to the competitive global economy and constant technological advancement in manufacturing, mining, health care and construction.

Ministry enforcement staff will continue to encounter new and changing technologies with complex engineering principles. The expertise of SPS engineers is required to address any associated health and safety risks.

MOL engineers are also involved in updating regulatory requirements to account for changes in technology and methodology so that workers are adequately protected from new hazards introduced into the workplace.

Engineering-related health and safety hazards

Field engineers support the *Safe At Work Ontario* initiative by responding to requests for professional support from the Inspectorate that arise out of their proactive inspections.

In 2015−2016 this support may involve:

- lifting devices

- racking and mezzanine structure
- excavation
- heavy equipment
- access equipment
- suspended stages
- ground stability
- electric controls
- chemical exposure and
- mobile equipment.

The work plan outlines the key issues and initiatives for the enforcement of the engineering sections in the regulations for Industrial Establishments, Construction Projects, Health Care and Residential Facilities and Mines and Mining Plants. It provides guidance regarding visits by field engineers for specific sectors and priority safety hazards, and their participation in special projects related to the enforcement of regulations or for completing investigations.

Engineering inspection focus

MOL Inspectors enforce the OHSA and its regulations at workplaces across the province.

As part of the *Safe At Work Ontario* strategy, inspectors also focus on specific sectors with:

- high injury rates
- a history of non-compliance
- and specific workplace hazards.

Engineers support inspectors in *Safe At Work Ontario* activities by responding to requests for professional support from the Inspectorate that arise out of their proactive inspections.

In 2015-2016, SPS engineers may:

- participate in proactive inspections
- participate in regional inspection initiatives
- review engineering reports
- conduct workplace inspections to determine compliance with Pre-Start Health and Safety Review (PSR) requirements
- scope work, review reports, interpret results and prepare engineering reports
- participate in investigating fatalities, critical injuries, work refusals and complaints
- assist in developing inspector guidance material for blitzes
- assist in developing hazard alerts

- develop training material for the structural assessment of buildings and infrastructure
- develop training material for temporary stages (Pan Am Games)

Engineers support *Safe At Work Ontario* blitzes by providing guidance materials and checklists to help ministry inspectors to accurately identify hazards.

The table below outlines the engineering inspection focus for the general Inspectorate during 2015−2016 *Safe at Work Ontario* inspections.

Sector	Engineering inspection focus
Industrial	• fall protection • guarding • use and failure of lifting devices • lockout • design and construction of mezzanine structures
Construction	• fall protection • scaffolding • roofing
Mining	• ground control stability • hoisting plants • electronic controls • control systems • water management
Health Care	• power plant hazardous including in-running nip, crushing and entanglement • storage and racking • loading docks

4. Radiation protection services

Description

Radiation Protection Field Services (RPFS) staff administers and enforces:

- occupational X-ray safety under the X-Ray Safety Regulation (Regulation 861)
- ionizing radiation (in the form of naturally occurring radioactive materials [NORM]) under the OHSA and
- non-ionizing radiation (electromagnetic extremely low and very low frequency, radio-frequency, microwave, magnetic resonance imaging, ultra-violet, laser) under the OHSA.

RPFS staff includes radiation protection officers (RPOs) who are appointed as:

- inspectors under the OHSA and
- provincial offences officers under the Provincial Offences Act.

RPOs have the power to lay charges for violations of the OHSA and its regulations.

RPOs specialize in:

- dealing with ionizing and non-ionizing radiation to protect workers' safety at Ontario workplaces
- conducting proactive inspections and reactive investigations to address workers' concerns and work refusals
- registering employers who have an X-ray source
- reviewing/accepting installation plans of X-ray sources used in veterinary, industrial, analytical and training applications.

X-ray, non-ionizing radiation and NORM sources can be found in virtually every sector of the economy.

The number of employers with X-ray machines continues to increase every year. Installation approval of X-ray machines is also increasing, most notably in veterinary (addition of dental), and security screening applications.

The table below outlines X-ray sources in key sectors.

Sector	X-ray sources
Health care	• hospitals • radiological clinics (human medical and dental) • veterinary facilities

Sector	X-ray sources
Industrial	• thickness gauges in steel/coating • fill-height detection in bottling/canning • contaminant detection in food processing, etc.
Educational	• training of X-ray operators in medical, dental, forensic, chiropractic fields • non-destructive testing and security
Construction	• industrial radiography of buildings • pipelines, etc.
Analytical	• used for quality assurance/control • investigation in major manufacturing • testing and research
Policing	• courthouse security screening • public buildings security screening • correctional centres security screening • bomb detection

Injury and illness causes

- Exposure to a hazardous physical agent (X-rays) may induce cancer, cause genetic damage, tissue damage or — in unborn children — developmental defects
- High-powered lasers in industrial, medical, cosmetic and research applications may injure skin and eyes
- Safety issues related to a magnetic field of a magnetic resonance imaging (MRI) system may result in an injury from a projectile or severe frostbite/freeze burns from exposure to cryogenic gas
- Radio frequency/microwave exposure can heat tissue
- Ultraviolet radiation can induce cancer and damage skin and eyes
- External gamma radiation exposure and/or internal alpha/beta particle radiation exposure from inhalation/ingestion of naturally occurring radioactive material (NORM) may induce cancer, cause genetic damage, tissue damage and — in unborn children — developmental defects

Radiation protection inspection focus

RPOs conduct joint workplace visits with MOL inspectors who enforce the OHSA and its regulations at workplaces across the province. RPOs are involved when workplaces under blitzes have X-ray sources or other known radiation hazards.

RPOs also conduct proactive inspections on their own initiative based on:

- potential risk of radiation exposure
- results of last visit to a workplace
- history of non-compliance and
- elapsed time since the last visit

As part of the *Safe At Work Ontario* strategy, RPOs, along with ministry inspectors, also devote special attention to certain sector-specific workplace hazards.

They take enforcement action, as appropriate, to any violations of the OHSA and its regulations.

In 2015−2016, the RPFS will proactively:

- focus on inspection of dental X-ray source installations at veterinary facilities
- focus on veterinary facilities with digital imaging systems
- investigate the highest personal X-ray exposures at workplaces with a particular focus on young workers (supplied by the national dose registry database which is the repository for occupational x-ray exposures (a focus will be on young (19 years of age and younger) and vulnerable X-ray workers (monitored for less than a year)
- confirm registration and review X-ray sources and installations (Regulation 861 [X-Ray Safety] requires employers to register with the Director; in addition, an application for review, together with plan location drawings, of the installation must have been reviewed and accepted by an Inspector)
- focus on cosmetic use of high power lasers
- support ministry inspectors on any regional initiatives with a radiation protection component
- support ministry inspectors on reactive or proactive visits to nuclear facilities where the ministry has authority to enforce the OHSA

RPOs will also pay particular attention to enforcement focus topics and issues in the table below. The list applies mainly to veterinary facilities and other extended coverage workplaces.

Major hazards	MOL Radiation Protection Services inspection focus
Musculoskeletal disorders (MSDs)	• lifting policies and procedures as well as devices (where available) will be reviewed in animal hospitals/clinics • field visit reports will contain MSD toolkit links
Slips/trips and falls	• workplaces should be free of materials, objects, substances and inappropriate ladders to prevent hazards.
Exposures to radiological hazards	Health hazards in veterinary care settings include: • use of radioactive elements in nuclear medicine (I-131 for thyroid treatment of cats) • physical agents such as X-rays • other radiation hazards such as MRI and lasers
MSDSs and WHMIS	• veterinary care sector uses wide variety of chemicals in liquid, solid, and gaseous states • endangered workers required to have access to current MSDSs and WHMIS training

5. Emergency management program

The following section addresses the Ministry of Labour's legal obligations under the Emergency Management and Civil Protection Act, R.S.O. 1990, c.E.9, and its associated Order in Council (OIC), O.C. 777/2009.

Description

The Ministry of Labour, along with other Ontario ministries, has adopted comprehensive emergency management programs.

These are based on a risk management approach that includes activities in the five core components of emergency management:

- prevention
- mitigation
- preparedness
- response
- recovery

The purpose is to ensure a proactive, co-ordinated and comprehensive approach to managing emergencies is in place. The goal is to reduce the significant risks faced by Ontario communities.

Implementation of emergency management programs will ultimately:

- save lives and money
- protect property, public health and the environment
- maintain economic stability and
- help assure the continuance of critical infrastructure.

This will be achieved by:

- preventing some emergencies from occurring
- lessening the frequency and severity of others
- speeding recovery

The result will be a province comprising safe, secure, and disaster-resilient communities.

Provincial ministries and municipalities are required to:

- develop, implement, and maintain a comprehensive emergency management program and
- adopt standards for these programs based on the Emergency Management and Civil Protection Act.

This requirement ensures a consistent, accountable, and robust system of emergency management is established throughout the province.

Ministry of Labour Emergency Management Program

The Emergency Management and Civil Protection Act, R.S.O. 1990, c.E.9, and its associated Order in Council (OIC), O.C. 777/2009 dated May 13, 2009:

- provide the authority for the Ontario government to prepare for, and respond to, emergencies in order to protect public health, safety, welfare and property in Ontario
- require all ministers to develop an emergency plan for continuity of operations and services
- require ministers to develop specific emergency plans for the management of the type of responsibilities assigned by the OIC.

The Ministry of Labour has been assigned responsibilities for “any emergency that affects worker health and safety”.

Responsibility for developing an emergency response plan for this additional OIC falls within the SPS Program.

The Emergency Management Program plans for 2015−16, outside of policy and legislated requirements noted above include:

- Ministry consequence management planning for the TO2015 Pan Am / Parapan Am games.
- Review and update the Ministry of Labour's Emergency Management Program so that the plan is current and organized to improve accessing information. The program will need to be amended to meet any changes in the provincial emergency management plans.
- The Office of the Fire Marshal and Emergency Management will be engaging ministries to coordinate review of emergency management elements of a provincial nature. The goal of the project is development of a set of community best practices.
- Support to the Provincial Emergency Operations Centre to reinforce worker safety requirements during events such as Avian Influenza Outbreak and James Bay Flooding 2015.