HEALTH,  
SAFETY & WELLNESS  

UPDATE ON SAFETY PROGRAMS

The professionals working in the Health and Safety team and Rehabilitation Services group have had a very successful year in supporting individuals to take accountability for their own safety and health through increasing awareness and training. The safety training programs at Western have heightened awareness of the importance of working in a safe manner and have resulted in a continued decrease in lost time claims and accidents for the fourth year. This report highlights the changes and activities in each of the safety programs and provides the health and safety data and trends.

Biosafety Program

The Biosafety Program has responsibility for ensuring all matters pertaining to Biosafety, including verifying that all work with biohazardous agents conducted by Western and its affiliates, is done in accordance with the safety practices outlined in the Public Health Agency of Canada Laboratory Biosafety Guidelines. The Biosafety Program is citywide and oversees all research involving biohazards conducted by faculty, staff and students at Western and affiliated Research Institutes.

To support research, six occupational health and safety Standard Operating Procedures (SOPs) were reviewed and updated in the past year. Hazard information sheets were completed for biosafety Level 1, Level 2 and Level 2+ research.

To support in vitro research, eleven additional biosafety procedures and guidelines were reviewed and updated.

In 2012 Western welcomed a new HIV researcher, who was trained and given access to the Level 3 facility. There are currently five HIV researchers using our Level 3 facility.

Reviews for the use of routine biohazardous materials were delegated from the Biohazard Sub-Committee to the Biosafety Officer and Chair of the Biohazards Subcommittee. This has resulted in expedited reviews and a faster turnaround time for the research community.

To expedite the review and approval of biohazard protocols, the Biohazards Subcommittee met every month in 2012. In addition to this, the Biosafety Committee met three times in 2012. A total of 156 Biological Agents Registry Forms were reviewed and approved in 2012. This is up from 119 in 2011.

There was an increased demand for biosafety training sessions for undergraduate classes. Biosafety training was completed for Schulich students in Physiology and Pharmacology, Biochemistry and the Medical Sciences Programs.

Environmental Safety Program

In 2012, the use of the Hazardous Waste disposal program has continued to support the needs of teaching and research community. Western continues to maintain a status of ‘In Good Standing’ for our waste generator license.

HazMat Storage Facility

OHS recognizes that there is risk associated with the collection and storage of hazardous materials on campus and works closely with RPR Environmental (our external waste contractor) and Internal Audit to develop procedures and programs to effectively manage that risk and comply with legislative requirements.

In 2012 OHS and RPR Environmental fully implemented a system that collects hazardous chemical waste and removes it from campus every week. This removes the risk of storing chemical waste on the main campus.

An Annual Report, as required for the PCB Storage Facility was submitted to the Ontario Ministry of the Environment. No concerns were raised.

Radioactive Waste Program

The Radioactive Waste program continues to operate meeting all the requirements of the CNSC and the Transportation of Dangerous Goods.

An annual inspection by the CNSC reported no issues of non-compliance.
Facilities Safety

The Facilities Safety Program addressed issues relating to construction work activities, pedestrian safety, the design of facilities, and hazard control in buildings. Monitoring of work activities in and around construction and renovation sites was performed regularly to reduce the impact on members of the University community. In situations where hazardous situations were anticipated, the immediate participation of various stakeholders was encouraged to implement reasonable corrective measures.

The focus of the Facilities Safety Program is the prevention of accidents and injuries. Continuous reference and education was provided to staff at Facilities Management (FM) on University Corporate policies, and FM Safety Policies and Procedures. In addition, the program also included scheduled post bid meetings with outside contractors prior to the commencement of any project activities on the University premises. Regular presentations focused on applicable policies and procedures that meet or exceed the minimum requirement of the Ministry of Labour Occupational Health and Safety Act and Regulations. These policies and procedures were enforced through a structured daily inspection program.

The strategy in addressing risks and managing safety is constantly evaluated by monitoring behaviours and adherence to procedures and protocols. All construction and renovation activities were monitored regularly and strict adherence to UWO Procedures and Construction Projects Regulations (Ontario Regulation 213/91) was requested on each project. This program was also enforced through a University adopted “Safety Reminder” program in which instances of non-compliance were dealt with by completing a form citing the violation and reference to the applicable section in the regulations. Copies of the form were sent to the affected internal and external administrative units.

Last year, inspection of construction workplaces included the Fraunhofer Project Centre for Composite Research and WINDEE Project at the Advanced Manufacturing Park “AMP” at Bradley and Veteran Memorial Road. It is anticipated that Safety services through OHS will continue to branch beyond the main campus boundaries.

Over 120 industrial safety training sessions were provided by the Facilities Safety Coordinator. Most who received the training were workers of FM, ITS, Engineering Machine Shop, and graduate students from the engineering school. Most of the courses offered are mandated by legislation and are designed to meet or exceed the legislative standards. Training course titles included: New Employee Health and Safety Orientation, Occupational Health and Safety Act for Supervisors, WHMIS, FM Work Procedures, Fall Arrest Systems, Confined Space Entry, Elevating Work Platforms, Asbestos Awareness and Ceiling Access, Asbestos Refresher, Ladder Safety, Laboratory Safety, Grounds Safety, Personal Protective Equipment, Construction Safety, Transportation of Dangerous Goods, and Hazardous Spills Management.

The training seminars are mandatory requirement under Occupational Health and Safety Act, Industrial Regulations 851.
HEALTH,
SAFETY & WELLNESS

**Occupational Hygiene**

Occupational Health and Safety responded and resolved over 200 occupational hygiene concerns. These were items such as indoor air quality, dust, heat, mold, noise, and lighting concerns. In all of the situations, thorough investigations were conducted and corrective measures were adopted in compliance with *Ontario Industrial Regulations 851*.

**Emergency Preparedness**

The Hazardous Materials Emergency Response Team conducted eleven training sessions for its responders. The ten team members are trained in the “Disciplined Approach to Emergency Response” and are capable of handling small to medium size spills or releases of chemical, nuclear, and biological material.

In 2012, team members performed mock confined space rescue operations. This was required under Ontario Regulations 632/05 to ensure we have internal capabilities at Western ready for immediate rescue should an emergency happen in any of Western’s 1,200 confined spaces.

Also, team members participated in Harmony 8 Exercise at the Institute for Chemicals and Fuels from Alternative Resources (ICFAR). The exercise was conducted in conjunction with Western’s Campus Police Services and the Ilderton Volunteer Fire Fighters. The exercise scenario involved a mock explosion of compressed gas cylinders, chemical spills and environmental contamination.

The HazMat Team responded to a small chemical explosion at the Robarts Research Institute on October 23, 2012. The explosion which involved “rubidium” occurred in RRI 0203 and one person was injured. Shortly after, the Western University HazMat Team was requested to attend to the scene.

A laboratory technician was cleaning a “Rubidium Optical Pumping Cell” when an unexpected reaction occurred. The reaction produced localized fire and a minor injury to the technician’s hand. The apparatus which uses rubidium to polarize xenon as a contrast agent for MRI imagery of lungs was being cleaned for the first time.

**Laboratory Safety Program**

The Laboratory Safety Committee and the University Health and Safety Committee approved a policy change in the lab inspection process to affect a change in compliance with the lab safety program. A program improvement plan was developed that includes consequences for labs that do not correct non-compliance issues identified during an inspection.

The inspection program will focus on reducing the risk from serious non-compliance issues and on improved communications with Principal Investigators on lab hazards. Labs with non-compliance issues will be re-inspected and failure to meet compliance will result in the closure of the lab until corrective action is completed. The changes in the inspection process were discussed and supported by Academic Leaders, Deans and Chairs.
Laboratory inspections ensure that Western laboratories are in compliance with the Occupational Health and Safety Act and its regulations such as WHMIS.

In 2012, 348 labs belonging to 240 Principal Investigators showed improved compliance with the lab safety program compared to 2011. Any lab with a non-compliance issue required a second inspection.

Of the 348 labs, 25% had non-compliance items that require reinspection. All labs were in compliance following the second inspection. In 2013 completed lab inspections we are seeing increased compliance in the Faculty of Engineering.

![PI Compliance with the Lab Safety Program 2010-2012](image)

X-ray and Laser Safety training as well as Radiation Safety refresher training are available on the new OWL. In addition to Laser Safety training for laser users, a Laser Safety awareness training module will be developed and posted on the Human Resources website for non-laser users in 2013.

The use of laser applications has increased in the past few years in various areas at Western University. New applications include real 3D images of plants and 3D objects built from metal powder. A total of 130 class 3B and class 4 lasers and laser systems have been registered under 34 laser permits as of December 31, 2012. We expect this trend to continue over the next few years.

A total of 122 permits, covering 184 designated radiation, x-ray or laser rooms were inspected by the Radiation Safety Coordinator. There was 94% compliance in all three of these programs.

There were no reported accidents involving the use of nuclear substances, X-ray and laser equipment in 2012.

**First Aid Program**

The First Aid program continues the ongoing task of ensuring that Western is in full compliance with WSIB Regulation 1101. Trained representatives are in place for all departments in all buildings on campus. A current list of all representatives and kit locations is maintained on the HR website.

OHS continues to partner with the UWO Student Emergency Response Team to provide Red Cross First Aid and CPR training. In 2012, 94 employees were trained in emergency first aid and CPR.

There are over 250 trained and certified first aid representatives on campus. They are responsible for first aid in their area, conducting and documenting monthly kit inspections, refilling their kits with required materials kits, etc.

Special requests to support research out in ‘the field’ are accommodated by supplying training and supplies to those faculty members and students who leave on field trips to remote locations.

**Radiation Safety Program**

The Radiation Safety program is comprised of Nuclear Radiation, X-Ray and Laser Safety. Radiation Safety is mandated under Canadian Nuclear Safety Commission regulations. The Radiation committee is composed of members with expertise or a stake in ionizing and non-ionizing radiation safety matters. They provide advice on all matters of radiation safety including nuclear substances, radiation devices, particle accelerators, X-ray equipment, lasers/laser systems and other non-ionizing radiation sources.
Training

In 2012 OHS gave many special onsite Laboratory and Environmental Safety courses to departments (Engineering, Science, Schulich) to support their research and teaching needs. These were given to their graduate students and to fourth year thesis students in their departments.

Transportation of Dangerous Goods

Research is increasingly global and researchers at Western collaborate extensively with colleagues worldwide. In addition to the exchange of data and ideas there is the need to exchange ‘real’ chemical and biological samples for study and analysis.

Most of these chemical and biological samples are considered hazardous and need to be shipped by air. This means all shipments must be packaged, labeled and documented according to International Air Transport and Dangerous Goods Regulations (TDG).

Critical Injuries

There were no Critical Injuries in 2012 and 3 to date in 2013. Critical injuries are those injuries that due to their nature meet criteria that must be reported to the Ministry of Labour. All were reported immediately to the Ministry of Labour who chose, in all cases, not to visit the site.
Joint Occupational Health and Safety Committee

The Joint Occupational Health and Safety Committee is the one, and only, health and safety committee that is required, under the Occupational Health and Safety Act, at a workplace. It is an advisory group of worker and management representatives that must meet regularly to discuss health and safety concerns, review progress and make recommendations.

In addition to any special concerns, the committee reviews and assesses trends in:

- Accidents and injuries
- Critical injuries
- Work refusals
- Workplace inspections

The Committee meets approximately every six weeks and all positions are filled in accordance with the Terms of Reference and requirements of certified members under the Occupational Health and Safety Act.

Internal JOHSC Inspections of the Workplace

It is a requirement of the Occupational Health and Safety Act that members of the Joint Occupational Health and Safety Committee “shall inspect the physical condition of the workplace at least once a year, inspecting at least a part of the workplace in each month”. OHS coordinates this program for the Joint Occupational Health and Safety Committee (JOHSC).

Every inspection at Western is conducted by one of the worker members (who represent their union or association) on the JOHSC. In 2012 each of the members conducted, on average, six inspections. These inspections include not only all workplaces on the main campus but also include the multiple worksites where employees work away from main campus. In 2012, the new Fraunhofer Project Centre for Composites Research was the newest offsite location to be added.

In 2012, 684 compliance orders were issued by the JOHSC during workplace inspections. This is essentially the same as in 2011.

The success of the JOHSC inspection program and the high level of compliance can be attributed to cooperative efforts of the committee members, the area safety representatives and the workers.

OHS also appreciates the significant contribution of the various departmental safety committees across campus. Many of these committees have their own inspection programs. Currently internal safety committees at Western include:

- Physical Plant Safety Committee
- Hospitality Services Safety Committee
- Engineering Safety Committee
- Chemistry Safety Committee
- Biology Safety Committee
- Western Retail Services Safety Committee
- Visual Arts Safety Committee
- Western Libraries Safety Committee

Total Compliance Orders for 2012
HEALTH & WELLNESS

Musculoskeletal Disorder Program

The Musculoskeletal Disorder (MSD) Program was introduced three years ago to address injuries and disorders that affect our musculoskeletal system (i.e. muscles, tendons, ligaments, nerves, discs, blood vessels, etc.). The program was initially launched at Hospitality Services and Facilities Management. In 2011, the program was also extended to include Animal Care and Veterinarian Services, and Libraries in 2013.

The MSD Program allows individual members of our workforce to complete individual anonymous “Discomfort Surveys” forms elaborating on personal discomfort experienced in the course of performing daily tasks in the workplace. Another segment of the program includes group discussions regarding safety concerns as well as “brain storming” sessions allowing our staff to suggest the best possible resolution of these safety concerns. This approach had facilitated a feeling of ownership over the program and employee participation has been overwhelmingly positive.

As a result, many staff members have been coached to address physical discomfort issues affecting them, and many new pieces of material handling equipment were purchased to alleviate discomfort symptoms. In the process, many safety concerns were also resolved, thus reducing accidents in the workplace.
Rehabilitation Services

There has been an increase in the use of services offered by Rehabilitation Services. This may be the result of the increased awareness of services offered, as well as the implementation of the Musculoskeletal Skeletal Disorders prevention program and the Mental Health Program where awareness may have resulted in earlier referrals. Within the cases managed, there are multiple episodes per employee. In Facilities Management and Hospitality Services approximately 20% of the cases are multiple episodes. Facilities Management accounts for the greatest number of cases seen in Rehabilitation Services and the greatest number of WSIB cases. Multiple episodes reflect the complexity of cases being managed.

Musculoskeletal System Disorders remain the number one diagnoses seen in Rehabilitation Services with Mental Disorders ranking number two, followed by Injury (motor vehicle accident, falls, etc.)

Accident/Incident Summary

The number of Accident and Incidents Reports for employees remains fairly stable.

Workplace Safety and Insurance Board (WSIB) Claims Management

WSIB and Long Term Disability (LTD) statistics for 2013 demonstrate positive trends with respect to workplace accommodation and disability management. This may be reflective of Western’s culture and ability to provide workplace accommodation to employees.
The March 2013 NEER Statement shows Western costs as of March 31, 2013 and is trending very well. Our current performance index rating is better than average. This is due in part to the reduced WSIB claims and Western’s success in meeting WSIB expectations with respect to early and safe return to work (early & sustained accommodation of injured workers). It should be noted, however, the projections are based on current status with the potential to change with 1 or 2 serious claims. In 2011, WSIB changed our financial liability for claims from 3 years to 4 years. This will require Western to be diligent in our case management and prevention for accidents/injuries.

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** >1=Surcharge, <1=Rebate, 1=Break Even

The NEER statement shows the trend of WSIB claims at Western over the last 5 years. The trend in the reduction of WSIB claims at Western is positive. Lost-time claims are going down, however health care claims need to continue to be monitored. To assist in the management of health care claims, Western provides additional supports and resources such as physiotherapy and other health care to eliminate overhead.