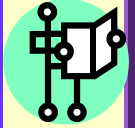




Spring 2010

CANADIAN COUNCIL OF OCCUPATIONAL HYGIENE NEWSLETTER (CCOH)



President's Message

CCOH 2009 Executive

Each geographic area/local provincial organization is represented by a director at the CCOH.

Directors/Assistant Directors:

Luisa Su sul@macewan.ca
(Alberta)

Clive MacGregor-Treasurer
clivemacgregor@ns.sympatico.ca

Jason McInnis
cjmcinnis@boilermaker.ca
(Atlantic Provinces)

Chun-Yip Hon
Cyhon1@interchage.ubc.ca
(British Columbia)

Jane Maslowski
jane_maslowski@phac-aspc.gc.ca
Edward Gatey
egatey@hydro.mb.ca
(Manitoba)

Lorraine Shaw-President
shawl@mcmaster.ca
Richard Quenneville
rquenneville@tharris.ca
(Ontario)

Herb Wooley
hwooley@lab.gov.sk.ca
(Saskatchewan)

Terry Demianenko
terry.demianenko@gov.yk.ca
Kurt Dieckmann
kurt.dieckmann@gov.yk.ca
(Yukon)

Newsletter Committee
Michelle Kutz
mkutz@golder.com
Raymond Ilson
Raymond.ilson@dal.ca

Webmaster
Chuck Pilger
c.pilger@alara.ca

The Winter Olympics are over and spring is right around the corner. I am sure that all Canadians were proud of our achievements at the winter Olympics.



As we look back on 2009, we can see that it was a year of great achievements for Canadian Health and Safety Professionals. Both the AIHCE and the PCIH were held in Canada.

This edition of the newsletter has reprinted three articles with permission from the authors. The first article was first printed in the 2009 Fall Newsletter of the Alberta AIHA. The other two articles were first printed in the OH Forum 2010 Winter Newsletter. Our newsletter also contains a notice of the CCOH Annual General Meeting, to be held by teleconference April 8, 2010. Any member of CCOH can participate in the call. If you are interested, please call or email myself with your telephone number, so that I can reserve the correct number of lines for the teleconference.

Happy Spring
Lorraine Shaw, B.Sc., CIH, ROH
President, CCOH

News from Across Canada



Health and Safety Conference Society of Alberta

The 8th Annual Alberta Health and Safety Conference and Trade Fair took place in Calgary at BMO Centre on October 26 - 28. The conference highlights included a three-fold event, combining educational sessions, professional development courses and one of the largest trade fairs in Alberta. The trade fair included over 130 exhibitors displaying the latest in health, safety and environmental supplies and services.

There were 30 keynote blockbuster and technical sessions over the 3-day conference.

The incoming President, Diane Radnoff, presented a blockbuster session titled *Confined Space Redefined*. An interactive session by Ken Hample titled *Moving Forward-Improving Alberta's OHS Code* preceded the conference. The opening keynote address by Gerry Madigan, *Effective Leadership in a New Economy* and the closing address by Ron MacLean from Hockey Night in Canada were both excellent.

The PDCs which mainly followed the conference, including the one sponsored by the Alberta AIHA local section, were well received and covered a wide-range of safety and occupational hygiene topics. Our session was *Health and Safety Considerations for Working in Cold Environments* by Ray Cislo.

This year's conference theme was New Horizons in Health and Safety. The workplace is constantly changing. New technologies, the changing of the workforce and changes to the environment create new health and safety challenges. We must look forward so that we can prepare for these new challenges and ensure that workers have a safe and healthy workplace now and in the future.

Roy Clough
Past President, Alberta AIHA

2009 OHAO Fall Symposium

The OHAO Fall Symposium took place on October 28th this year and began with a presentation of the Environmental Abatement Council of Ontario (EACO) mould abatement guidelines by Steve Fulford (Stantec, President of EACO). Details of the presentation included asbestos assessments and abatement following unplanned/accidental release, lead exposure on construction sites, and the development of the hazardous materials worker trade designation in the construction industry. The 253H Hazardous Material Worker schedule of training (July 2009-EN.pdf) can be found at www.eacoontario.com.

Of special note were the new changes made in the EACO guidelines. Most importantly, HVAC or mechanical rooms with less than 10 ft² are now considered Level 1 (used to be level 2 or 3). Abrasive blasting methods, such as dry ice, sand, or soda are described. If dry ice is used, supplied air must be provided for the worker. For more information please visit the EACO website at www.eacoontario.com.

Dr. Leon Genesove (Chief Physician, MOL) gave a presentation on H1N1 pandemic Influenza. He explained the parallel to the SARS outbreak, in that H1N1 also occurred in two waves. It was decided that vaccines should be first given to the high risk population and then to others. Those who have been diagnosed with H1N1 are advised to stay home. Furthermore, hand sanitizers containing more than 60% alcohol are considered effective in limiting the spread of the virus. Non-alcohol based sanitizers are considered ineffective against H1N1.

Ms Jessie Callaghan (Senior Technical Specialist - Chemical Hazard Evaluation, CCOHS) presented a talk on WHMIS after GHS: Planning and Preparing for Change. GHS is the Globally Harmonized System of Classification and Labeling of Chemicals.

The National Institute for Occupational Safety and Health (NIOSH) requests comment on the draft Current Intelligence Bulletin (CIB) "**Asbestos Fibers and Other Elongate Mineral Particles (EMPs): State of the Science and Roadmap for Research Version 4**", NIOSH Docket Number NIOSH 099-C.

Comments will be accepted until 5:00 p.m. EDT on April 16, 2010

To submit comments, please use one of these options:

1. Send NIOSH comments using this [online form](#)
2. Send comments by [email](#).
3. Fax comments to the NIOSH Docket Office: 513-533-8285

News from Across Canada (Cont'd)



It covers all chemical substances and mixture and is the next step in the continuous process of improvement for hazard communications. The overall goal of the GHS is effective worldwide communication of hazards and precautions on labels and on SDSs. Ms. Callaghan went on to explain why harmonization was important. She mentioned that different countries have different systems for classifying chemicals and communicating product hazards, resulting in problems for global trade and risks to workers from inconsistent or confusing hazard information. As an example of this, a chemical with an oral LD50 of 257 mg/kg is considered 'toxic' in Canada, U.S., Japan, and Korea; 'harmful' in E.U., Australia, Malaysia, and Thailand; 'moderately toxic' in China; 'hazardous' in New Zealand; and 'non-toxic' in India. The GHS implementation is meant to provide consistent hazard information. It will allow more efficient administration and enforcement of hazard communication laws, as well as reduce hazard communication costs and make compliance easier for suppliers and employers. GHS will also reduce barriers to international trade. The current WHMIS system after the implementation of GHS will have new classification rules and hazard classes, new label requirements, new hazard symbols/pictograms and a new format for Safety Data Sheets (formerly Material Safety Data Sheets). The new GHS will cover all hazardous chemical substances and mixtures and some not previously covered by WHMIS (namely, pharmaceuticals and explosives). The GHS hazard groups include health hazards, physical hazards and environmental hazards, with each group having its own classifications. Some GHS hazard classes are different from the current WHMIS hazard classes (i.e. explosive, aspiration hazard, specific target organ toxicity - single exposure, hazardous to the aquatic environment, hazardous to the ozone layer). Another noticeable change in the new system is that the original 9-section Canadian MSDS will be replaced by a standardized 16-section format. The great advantage in this is that all SDSs will have the same layout so information will be easier to find. There will be changes in the hazard symbols/pictograms, hazard statements, signal words and precautionary statement will be included. Ultimately, GHS will affect the supplier, the employer and the worker. It will mean more testing for the supplier and making sure that the labels are updated.

The employer will need to provide updated training for the workers on the changes under GHS. Workers need to stay current on the materials that they are working with and their hazards.

Dr. Franco DiGiovanni (Airzone One Ltd.) delivered a presentation on certificates of approval (C of A) for air emissions in Ontario. First, he described those who are exempt from requiring a C of A include O. Reg. 273/03, routine maintenance, "clean" air exhaust, small residences, < 1.5 MMBTU/hr site-wide heat input capacity, agricultural operations. Those who are not exempt include general plant exhaust where plant air has contaminants and "home-made" exhaust devices. Dr. DiGiovanni mentioned that there have been some developments (Reg 419 - air only) that include new U.S. EPA models (SCREEN3, AERMOD) and tighter standards for some chemicals. The newest developments, as of 2009, include multi-media and cumulative effects discussions, sector-based approaches (Maximum Achievable Control Technology (MACT) in Ontario), and noise impact assessments aligning with air assessments. Reg. 419 has raised the bar for air standards, also requiring that compliance with these standards be assessed as soon as possible.

Three case studies were presented by Ms. Lorraine Shaw (McMaster University) and Mr. Todd Irick (WESA). The first presentation was on the new ABIIH ethics requirements. The message was that beginning in 2010, new applicants and CIHs/CAIHs must complete at least two hours of ethics coursework as part of their maintenance requirements. For CIHs/CAIHs, at least two hours (0.33 CM points) are required for each five year CM cycle. The new requirements begin in the 2006-2010 round. The purpose of the new ethics requirement is to ensure integrity and professional conduct, protect confidentiality of sensitive information, reduce conflicts of interest and protect intellectual property from plagiarism.

The second case, presented by Mr. Irick, highlighted the concentration of trichloramines in swimming pools. He described a study conducted by NIOSH on the concentration of trichloramines at a water park.

News from Across Canada (Cont'd)

The study found that trichloramine levels at the water park were similar to indoor pools. Lifeguards had more complaints and symptoms than other employees. It was recommended that ventilation be further assessed (ASHRAE recommends 4-8 air exchanges per hour). Furthermore, CO₂ concentration, pool chlorine and pH levels, as well as the number of occupants, should be taken into account. These numbers should be logged in order to establish a possible correlation. It was also recommended that there be additional nitrogen trichloride monitoring.

The third case study was on the ESA requirements for remediation of grow-ops, presented by Mr. Irick. The challenges in dealing with grow-ops, he mentioned, are that they are difficult to locate, they make a great deal of money, and if they get caught, the penalty is not too severe.

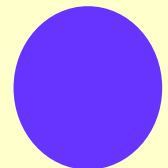
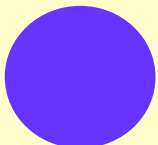
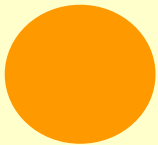
The current problem in dealing with the remediation of grow-ops, and it is a problem that many OHAO members agreed with during this presentation, is that there are no standard requirements for dealing with the remediation of grow-ops. Each city seems to follow its own remediation standards, often borrowed from another American or Canadian city's set of standards. The ESA has developed requirements for the remediation of grow-ops which provides some guidance on how to deal with these situations.

Mike Grey (Candesco) presented the last talk of the day on the medical isotope supply shortage; causes, implications and occupational hygiene issues. He explained that Technetium-99m is the most commonly used isotope in single photon emission computerized tomography (SPECT). The isotope is man-made (no stable isotopes available) and currently in short supply.

Mr. Grey went on to describe the hygiene issues with cemented high level liquid waste (HLLW). The challenges include particulate contamination, iodine and xenon emissions, worker exposures, possible leaching of mercury, and production of methyl iodide from cement. He mentioned that possible solutions to these problems might be decaying HLLW to reduce decay heat, neutralization of HLLW, improving the mixing of HLLW and cement powder, and filtering gases that escape from waste cans (HEPA & TEDA-charcoal).

Overall, the symposium was a success with informative and interesting presentations. All presentations were given good reviews.

Negin Ghanavatian, MHSc





**NOTICE OF ANNUAL
GENERAL MEETING**

Notice is hereby given that the ANNUAL GENERAL MEETING of the CANADIAN COUNCIL OF OCCUPATIONAL HYGIENE will be held by conference call on the 8th day of April, 2010, from 1:00 – 3:15 pm Eastern Daylight Savings Time for the following purposes:

To receive the financial statements of the Canadian Council of Occupational Hygiene for the year ending December 31, 2009 and reports from the standing committees.

To elect a President and Webmaster (French or bilingual)

To transact such further or other business as may properly come before the meeting.

By order of the Board of Directors

Any member in good standing is welcome to attend the meeting. Please contact Lorraine Shaw with your name and telephone number by March 26th, so that arrangements can be made to include you in the conference call.

Upcoming Events and Announcements

- The University of British Columbia School of Environmental Health offers continuing education opportunities for occupational and environmental health and safety professionals. The University's offerings are awarded certification maintenance points by the American Board of Industrial Hygiene (ABIH), Board of Canadian Registered Safety Professionals (BCRSP) and Canadian Registration Board of Occupational Hygienists (CRBOH).

**Preventing Catastrophes in
Confined Spaces**

May 3 & 4, 2010

Vancouver Marriott Pinnacle Downtown
Vancouver, BC

Co-sponsored by WorkSafeBC

**Outdoor Air Quality and Health and the Air
Quality Health Index (AQHI) online | on demand
| free | bilingual | CME & other professional credits
| multimedia content | discussion forum**

This is a free course but registration is required.

- **2010 Western Conference on Safety, April 12 - 13, 2010, Hyatt Regency, Vancouver, BC.** Choose from more than 20 sessions that will help you gain knowledge and develop skills that you can use throughout your career. There'll also be over 70 safety tradeshow booths to visit. For more information and to register, visit the [Pacific Safety Center](#) web site or call 604 233-1842.
- **Canadian Association for Research on Work and Health Conference: Worker Health in a Changing World of Work, May 28-29, 2010, Toronto, ON.** The theme for the conference is, "Worker Health in a Changing World of Work." A student symposium will take place one day before the conference on May 27. Details on how to submit abstracts and proposals for symposia and workshops will be announced soon. Check the [conference web site](#) for more details as they become available.



- *"forget-them-not"* National Day of Mourning is April 28, visit the online Memorial [Day of Mourning Website](#) and dedicate a flower in memory of someone who has died as a result of their job.
- **AIHCE 2010, May 22 - 27, 2010, Denver, CO**

Ontario's Toxics Reduction strategy

The Toxics Reduction Act (TRA) and the accompanying Regulation 455/09 came into effect on January 1, 2010 in Ontario and is part of Ontario's Toxics Reduction strategy. It was formally Bill 167 that was passed in June 2009. While there will be some impact in the manufacturing sector as a result of this Act, it is meant to represent a balanced approach to protecting human health and the environment, and in support of a green economy in Ontario. In summary, the TRA will require facilities to:

1. Track and quantify the toxic substances from a prescribed list used or created at the facility;
2. Prepare a toxic substance reduction plan for each toxic substance used or created at the facility and have the plan certified both by the highest ranking employee at the facility with management responsibilities and by a proposed accredited toxics reduction planner;
3. Prepare summaries of their plans and make them available to the public in accordance with regulations;
4. Report to the Ministry on their progress in reducing toxic substances and make certain information available to the public in accordance with regulations; and,
5. Report to the Ministry on any substances of concern used or created at the facility, most likely on a one time basis. About 1,000-2,000 manufacturing facilities are expected to be affected by this. More specifically, the manufacturers identified by the North American Industry Classification System (NAICS) maintained for Canada by Statistics Canada codes commencing with the digits "31", "32", "33" (most sectors of manufacturing) and "212" (mining and quarrying except for oil and gas) will be required to account for the toxic chemicals manufactured, processed or incidentally produced at their facilities. The list of toxic compounds and the reporting thresholds will be similar the National Pollutant Release Inventory (NPRI), in addition to Acetone, and will be phased-in over 3 years. If the reporting criteria are met for the toxic compounds, the facilities will have to prepare and submit a Toxics Substance Reduction plan that is certified by both the highest ranking employee with management responsibility at the facility and an accredited Toxics reduction planner. The details of the certification requirements for the toxics reduction planner would be proposed in a later regulation reported to be released in 2010. The proposed regulation prescribes the toxic substance and employee thresholds which are the same as the NPRI thresholds.

For example, for acetone, as prescribed by Ontario Regulation 127/01, the proposed thresholds are 3 tonnes and 20 000 employee hours worked (approximately 10 full-time employee equivalents). The Ministry of Environment would inform stakeholders and the public of any changes made to the thresholds through the Environmental Registry. One of the main objectives of the act is information to the public about toxic substances. The Ontario government plans to establish an electronic reporting system and a web site which would enable Ontarians to monitor toxics use and releases in their communities, as well as actions taken by facilities to reduce toxics. The government also plans to provide Ontarians with the necessary knowledge to make informed choices and support a domestic market shift to greener products. It is important to remember that Ontario's Toxics reduction strategy was built upon the recommendations of the Toxics Reduction Scientific Expert Panel and consultations with business and industry, and environmental and health organizations, including Cancer Care Ontario and the Ontario Medical Association. The TRA also provides for linkages with the Ministry Health and Long-Term Care. The TRA also includes provisions to create regulations on the prohibition or regulation of the manufacture, sale or distribution of a toxic substance or anything that contains the substance and to require the manufacturer, seller or distributor to provide notice to the public. Consultation with stakeholders and the public would take place prior to the development of any regulation under these new authorities. At the end of the day, the TRA will provide opportunities for the manufacturing sector to reduce its toxic footprint by reducing the release of toxic chemicals in the air, water, land and consumer products, and to demonstrate its environmental commitment. Through the Toxics Reduction Act, it appears that Ontario is the leading province in Canada in toxics reduction legislation. The TRA can be consulted at http://www.e-laws.gov.on.ca/html/regis/english/elaws_regs_090_455_e.htm
Reference : <http://www.ene.gov.on.ca/>

Christine Sidhom Occupational Hygienist, CRSP,
CIH/ Mount Sinai Hospital