

WORKSHOP OBJECTIVES

Indoor Air Quality problems are a major cause of lost productivity and discomfort in non-industrial workplaces. Other problems such as lighting, noise, and workplace design may also contribute to discomfort and loss of productivity. A detailed evaluation of the indoor environment, using reliable methods, is an essential step in solving the problem. In addition to an understanding of air sampling strategies and skills in air sampling techniques, the investigator must also possess knowledge and skills in evaluating physical and biological hazards, and must be able to recognize ergonomic and psychosocial factors that may be contributing to the IEQ problem.

ALARA Industrial Hygiene Services has a strong commitment to occupational health education and training. This course will provide participants with the practical skills and theoretical knowledge to enable them to conduct meaningful and effective IAQ/IEQ investigations. Participants will gain experience with monitoring instruments used in standard and advanced evaluations of the non-industrial environment. Emphasis will also be given to investigation protocols and interpreting data according to current guidelines and standards. The course has been designed for occupational hygienists and technologists, building engineers and managers who want to enhance their knowledge of indoor environmental monitoring and problem solving.

The American Board of Industrial Hygiene has awarded 2 CM points for this workshop

The workshop will be held at:

The Best Western Primrose Hotel
111 Carlton St., Toronto, ON
(1-800-268-8082)

REGISTRATION

By Mail: Fill out the registration form overleaf.

By Phone: Call **ALARA** at (416) 759-9579 or fax to (416) 759-0372 to reserve a space, which will be confirmed upon receipt of payment.

Fee: \$775 plus 13% H.S.T. (\$875.75)

WORKSHOP PROGRAM

Day 1

- 8:30 **Welcome and introductions**
- 8:45 **Defining the Problem**
Sick Building Syndrome and Building Related Illness, IEQ concerns
- 9:45 Break
- 10:00 **Indoor Air contaminants and Sources**
Carbon dioxide, temperature, humidity, volatile organic compounds and specific air contaminants: carbon monoxide, formaldehyde, asbestos, vehicle exhaust, microorganisms
Other environmental factors - light, noise, ergonomics, psychosocial
- 11:00 **Overview of HVAC**
Basic design of HVAC systems - components of standard ventilation systems and their effect on air quality.
- 12:00 Lunch break
- 1:00 **Preliminary IEQ Assessment Strategies**
Interviewing occupants, the preliminary walkthrough, inspecting the ventilation system and the use of questionnaires and symptom journals

- 2:00 **Measuring Air Quality**
Sampling and Measurement Considerations
Monitoring Methods and Equipment - selecting appropriate sampling equipment
- 3:00 Break
- 3:15 **Assessing the ventilation system**
Instruments for measuring air flow - practical exercises
Evaluating fresh air supply - practical exercise, tracer techniques
- 4:30 Adjournment
- ### Day 2
- 8:30 **Measuring Air Quality II**
Calibration and use of sampling trains for integrated sampling and direct reading contaminant monitors.
Conducting the survey: Practical exercise
- 9:45 Break
- 10:00 **Sample handling, storage and transport**
Techniques to ensure integrity of samples until they reach the laboratory
- 12:00 Lunch break
- 1:00 **Interpreting the collected data**
Air sampling calculations, standards and guidelines for air quality, health, and comfort
- 3:30 **Communicating results**
- the close-out meeting
- the report and followup
- 4:30 Evaluation and Adjournment

WORKSHOP PRESENTERS

Charles W. Pilger, CIH, ROH, C.Chem

Chuck has an MSc in organic chemistry (Waterloo) and an MEng in industrial hygiene (Toronto). He has taught graduate and undergraduate courses in occupational health and safety and environmental analysis, and now offers professional development workshops in occupational hygiene. He has directed a university occupational health and safety laboratory, and conducted research in occupational hygiene and environmental health.

Marguerite Pilger, CIH, ROH

Marg has a BSc in chemistry, a BA in psychology (Waterloo) and a Master of Engineering in industrial hygiene (Toronto). She consults full-time with ALARA, conducting field surveys and audits, and presenting occupational hygiene seminars and workshops.

Other workshops offered by ALARA are

- Occupational Hygiene Air Sampling
- Bioaerosols in the Workplace
- Noise exposure evaluation
- Industrial Ventilation
- Solvents
- Toxic Dusts - asbestos, lead, silica
- Heat Stress
- Isocyanates
- Metalworking Fluids
- Toxicology of Industrial Chemicals

For more information

Phone: (416) 759-9579
Fax: (416) 759-0372
E-mail: info@alara.ca
Web Site: www.alara.ca

REGISTRATION FORM

(Please print)

Dr./Mr./Ms. _____

Title: _____

Employer: _____

Address: _____

City: _____

Province/State: _____ Postal Code: _____

Phone: () _____ Fax: () _____

Email: _____

- I can't attend this time but please reserve a space for me for the next IAQ/IEQ workshop.

Registration Fee:

\$904 (13% H.S.T. included)
H.S.T. Registration No. 100107622

Make cheque or Money Order payable to:

ALARA Industrial Hygiene Services Ltd.

Mail to:

ALARA Industrial Hygiene Services Ltd.
103 Parkview Hill Crescent
Toronto, Ontario M4B 1R5

Evaluation of IAQ/IEQ

(Indoor Air Quality / Indoor Environmental Quality)

2-day practical workshop

presented by:

ALARA Industrial Hygiene Services



Toronto, Ontario

November 24-25, 2011