Levi Kimble, MSc, CIH

Senior Industrial Hygienist

Professional summary

Mr. Kimble is an industrial hygienist with over 12 years of experience in the field of industrial hygiene. He has experience in conducting exposure and risk assessment, indoor air quality investigation, asbestos management, hazardous building materials investigations, and a variety of other work, such as reviewing scientific literature and legislation for policy review. He has experience working in metal smelting/refining, industrial painting, construction, mining, manufacturing facilities, commercial buildings, road construction, marine construction and ports. He has investigated building ventilation, worker exposure to asbestos, heavy metals, isocyanates, volatile organic compounds, acid mists, chlorine, hydrogen sulphide, sulfuric dioxide, diesel exhaust, Portland cement, crystalline silica, asphalt fume, welding fume, polycyclic aromatic hydrocarbons, carbon monoxide, flour dust, noise and heat. As well, Mr. Kimble has performed a variety of indoor air quality assessments which included the assessment of moulds, bacteria and associated parameters such as moisture, relative humidity and temperature.

Mr. Kimble has been involved on projects which review available literature and legislation regarding mould and both ionizing and non-ionizing radiation in order for policy review from applicable stakeholders.

Mr. Kimble has managed training programs as well, which focussed on asbestos management programs of commercial buildings.

Mr. Kimble has managed a large exposure assessment and data acquisition project spanning multiple sites over the course of several years relating to silica and the construction industry in British Columbia.

Employment history

- Aura Health and Safety Corporation. Industrial Hygienist, Burnaby, BC, 2016 to present.
- AMEC Environment & Infrastructure, Industrial Hygiene Specialist, Burnaby, BC, 2014 to 2016.
- Teck Metals Ltd., Industrial Hygiene Coop. Student, Trail, BC, 2013.
- Epoch Environmental Consulting. Field Technician, Coquitlam, BC 2010 to 2012.

Representative projects

Hazardous Materials Assessment & Management

Translink Projects, BC

Mr. Kimble has been the lead hazmat investigator and involved with multiple site modification and renovation projects at Translink properties. Projects typically involve an initial review of known hazardous building materials for the site, conducting subsequent investigations specific to the pending site modification works, delivery of reports to support the project and advise contractors on obligations and regulatory requirements. Consultation and input on site engineering and demolition specifications are also provided, when warranted.

Asbestos Survey Generations Project, BC

Mr. Kimble assisted in developing a thorough asbestos survey and management methodologies for BC Hydro generating stations. These methodologies address inspector surveying, labelling, and laboratory analysis. During this process, BC Hydro has developed an inspector tablet app and online database that allows for easy

Core Skills

- Hazardous Materials Management & Assessment
- Exposure assessment
- Risk Assessment
- Indoor air quality
- Legislation review
- Project management

Education

- MSc, Occupational & Environmental Hygiene, University of British Columbia, BC, Canada, 2014
- BSc, General Science, University of British Columbia, BC, Canada, 2010

Certifications

- Certified Industrial Hygienist, American Board of Industrial Hygiene, #12028
- US EPA AHERA Building Inspector 185059

Memberships/affiliations

- American Industrial Hygiene Association BC Yukon Local Section- 2012 to present
- IAQA Vancouver Chapter – Board of Directors Member (2016-2018)

Location

- Burnaby, BC

Languages

- English

surveying and access to the inventory. Quality control and management oversight on this project continues to date.

Building Related Hazardous Exposure Management Program, Vancouver Airport Authority, BC

Mr. Kimble is the prime inspector and Aura project manager on projects requiring hazardous materials identification and management at the Vancouver Airport Authority (YVRAA) – Terminal Projects. In addition to managing hazmat projects, Mr. Kimble has provided guidance throughout the Building Related Hazardous Exposure Management Program (BRHEMP) development process.

Hazardous Building Materials Assessment, Various Clients, BC

Mr. Kimble has conducted many hazardous building materials assessments (HBMA) for an array of clients and building types, ranging from commercial and industrial properties to residential buildings. Identification of hazardous materials, such as asbestos and lead, is generally an initial step throughout the process of controlling such hazards throughout construction and demolition projects and is a requirement of WorkSafeBC within the province of BC.

Indoor Air Quality and Microbial IAQ Investigations

Indoor Air Quality Investigation, Property Developer, AB

Mr. Kimble worked on an investigation of indoor air quality in a new building in which employees were reporting adverse health effects in one area of the building versus another. Material review and headspace chamber testing was conducted of new materials and comparison of headspace contaminants was made with the airborne contaminant profile. In addition, a microbial investigation and assessment of ventilation was conducted.

Indoor Air Quality Investigation, Alberta Workers' Compensation Board, AB

Mr. Kimble worked on an investigation of indoor air quality in a project involving workers' compensation cases who had been experiencing allergic and other adverse reactions in their indoor office environment. He led an investigation that included worker interviews, visual inspection, review of materials and products, microbial and chemical sampling, and an assessment of the ventilation and pressure differentials in the building.

Microbial Investigation, Sto:Lo Nation, BC

Mr. Kimble worked on an investigation of a commercial office building with previous moisture intrusion issues and resultant mould concerns. He led the project which involved conducting a microbial indoor air quality assessment, recommending remediation protocols, and subsequently developing procedures to do so, which involved confined space entry into the crawlspace.

Mould Control Program, Simon Fraser University, BC

Mr. Kimble was the lead developer of a detailed mould control plan aimed at controlling and mitigating mould and water intrusion issues throughout the university campus. The program covered best practices prior to, during and after construction and renovation projects, as well as investigation strategies and laboratory analysis methods to be utilized for effective assessments.

Chlorine Investigation, Confidential Municipality, BC

Mr. Kimble worked on an investigation of a water treatment facility which uses chlorine as a sanitization method. Ambient monitors were utilized at select locations, such as near vents and over-flow channels. Findings indicate that although chlorine levels were below any applicable guideline or exposure limit values, the low odour threshold of this chemical can still result in detection by people and perhaps irritate those sensitive to such odours.

Chemical Exposure Assessments

Silica Exposure Assessment, BC Construction Safety Alliance, BC

Mr. Kimble performed and managed silica exposure assessments for the BC CSA. This involved visiting multiple construction sites ranging from commercial to residential high-rise developments and renovations and collecting samples and detailed supplemental data regarding dust and silica exposure.

Emergency Industrial Hygiene Services during a Chemical Fire, BC

Mr. Kimble worked as part of a team of industrial hygienists to respond to a chemical fire, which involved advising the client regarding immediate potential exposure and decontamination issues, building and guiding a sampling strategy to ensure the safety of workers returning to site, and conducting risk communication activities.

The sampling strategy required development of innovative methods to quickly assess the situation and clear the work area for re-entry by workers.

Isocyanate Exposure Assessment, Confidential Industrial Paint Shop, BC

Mr. Kimble performed a thorough exposure assessment of an industrial painter and shop during the use of isocyanate-containing paints used to protect various metal materials at an industrial paint shop within a metal smelting and refining complex. Various recommendations resulted from the assessment, all of which aimed at introducing engineering controls to reduce aerosol inhalation potential, overspray and therefore reduce dermal exposure.

Heavy Metals Exposure Assessment, Confidential Smelting and Refining Complex, BC

Mr. Kimble performed approximately 25 – 30 assessments throughout various buildings and plants, each of which consisted of approximately 4 – 10 samples which were analysed for various heavy metals, including lead, arsenic and cadmium. The data attained throughout the assessments were utilized as part of an ongoing monitoring program aimed at ensuing workers are within regulatory guidelines for metals exposure. Some plants were observed to have elevated exposure levels and controls measures were suggested to mitigate this issue.

Asphalt Fume Exposure Assessment, Confidential Large Road Construction Firm & Municipality, BC

Mr. Kimble performed an asphalt fume, as well as polycyclic aromatic hydrocarbon (PAH), exposure assessments in a variety of road construction projects within the lower mainland. Findings indicate that it is currently very difficult to reduce asphalt fume exposures to levels below regulated levels. Current engineering controls present on paving machines do not appear very effective at reducing fume generated by a variety of asphalt mixes used.

Flour Dust Exposure Assessment, Confidential Industrial Bakery, BC

Mr. Kimble performed a flour dust and particulate exposure assessment throughout various areas and process lines of an industrial bakery. Findings indicate that flour dust is difficult to control to current regulated levels for a variety of higher-risk tasks. Engineering controls, such as local exhaust ventilation within mixing machines, and safe work procedures were recommended in order to mitigate the flour dust exposures observed.

Asbestos Exposure Assessment, Various Workplaces, BC

Mr. Kimble performed a multitude of asbestos exposure assessments and monitoring projects throughout various workplaces and construction sites. Findings generally indicate that disturbance of friable asbestos during abatement projects can generate exposures well above recommended guidelines.

Silica Exposure Assessment, Confidential, BC

Mr. Kimble performed an exposure assessment for respirable crystalline silica at an aerospace maintenance facility which works with various materials and products. High-risk tasks such as sanding and sand-blasting were monitored and confirmed to be within regulations for silica exposure.

Theatrical Mist Exposure Assessment, Confidential, BC

Mr. Kimble performed an exposure assessment for theatrical mist (haze used during filming) at multiple sites where film crew workers and actors were working with atmospheric mist present. The findings were utilized to evaluate compliance as well as determine expected levels during similar future work.

Physical Exposure Assessments

Heat Stress Assessment, City of Burnaby, BC

Mr. Kimble assessed the heat stress of municipal waste workers as they operated garbage trucks in the summer months. WBGT monitors were utilized in conjunction with personal ear-piece temperature monitors in order to assess the workers. It was found that although body temperatures recorded by the monitoring equipment did not appear over applicable guideline levels, the discomfort experienced by workers can still cause issues. In conclusion, heat stress and discomfort caused by heat should be differentiated, but both should be mitigated if possible in order to create better work environment.

Noise Exposure Assessment, Industrial Bakery, BC

Mr. Kimble assessed the noise exposure in an industrial bakery. Both area measurements using an integrated sound level meter, as well as personal dosimeters attached to workers were utilized in the assessment.

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Occupational and Environmental Health Policy

Feasibility of Reducing Portland Cement Occupational Exposure Limit in Alberta

Mr. Kimble was a member of a team of health and safety professionals with the objective of determining whether or not it was feasible to reduce the current Portland Cement occupational exposure limit from 10 mg/m^3 total particulate to 1 mg/m^3 respirable particulate. As respirable dust exposure in facilities using Portland cement often consists of mixed exposures, a marker of Portland cement was sought so that exposure results could be tied to Portland cement and not other dusts.

Radiation Protection Services Scan, Centre for Disease Control, BC

Mr. Kimble was the lead literature reviewer on a project which investigated the current services available and applicable legislation for radiation protection across Canada. Both ionizing and non-ionizing radiation was investigated and the project revealed vast differences in the management and regulation of radiation across the different jurisdictional boundaries of Canada. The findings were used to recommend potential ways that BC could improve their radiation protection services.

Miscellaneous Projects

Asbestos Awareness Training, Value Village, BC

Mr. Kimble performed asbestos awareness training for approximately ten retail locations within BC. The training covered the basics of asbestos, such as health effects, identification, and management steps required to mitigate any exposure risks in their workplace.

Presentations

1. Kimble L, Fung, A.. Modified Monitoring Methods in Mining – A Simplified Approach. American Industrial Hygiene Conference and Exposition (AIHce), Phoenix, AZ, May 23, 2023 (Session E1).
2. Kimble L., Melanie Gorman Ng. L4: A New Silica Control Tool in British Columbia, Canada. American Industrial Hygiene Conference and Exposition (AIHce), Philadelphia, PA, May 23, 2018 (L4 Education Sessions).
3. MSc Coop. Project – Isocyanate Exposure in Paint Shop, SPPH, University of British Columbia School of Population and Public Health, 2013.

Teaching Experience

1. Teaching Assistant, SPPH 562, University of British Columbia School of Population and Public Health, 2013.
2. Guest Lectures, SPPH 562 & 566, University of British Columbia School of Population and Public Health, 2017-2021.