Regulatory Change: A Primer on Protecting Workers from Lead Exposure

Changes to the Occupational Health and Safety (OHS) Regulation

On May 1 2017, sections 6.58.1–6.69 of the Occupational Health Safety (OHS) Regulation will be expanded and related OHS Guidelines updated to clarify employer requirements to protect workers from the harmful effects of lead.

Changes to the OHS Regulation expand the sections on lead to include specific requirements for protecting workers from the risks of exposure to lead dust, mist or fume.

Dangers of lead

Occupational exposures to lead can occur in all industries. Particularly, it is a risk when conducting work activities that generate lead dust, mist or fume, such as abrasive blasting, welding, cutting, cleaning of surfaces containing lead coatings, or demolition, dismantling or salvage of lead-containing materials. Over 30,000 B.C. workers are exposed to this dangerous substance.

Lead dust, mist or fume enters the body through ingestion and inhalation. Once absorbed, lead binds strongly to red blood cells, and is then deposited primarily in the bones, where it accumulates and can lead to adverse health effects on the formation of blood, the renal system, the nervous system, and even the reproductive system. Continued uncontrolled exposure to lead could cause serious health problems such as kidney damage, nerve and brain damage, and infertility.

Changes to the Regulation

Sections of the OHS Regulation pertaining to lead are being expanded to provide clearer and more detailed instructions on the handling of lead-containing materials and preventing worker exposure.

Many of the new sections are not entirely new requirements, but were previously not specific to lead. The new regulations have created sections in the OHS Regulation for lead that outline the required elements and considerations such as a risk assessment, air monitoring, exposure control plans, recordkeeping, housekeeping practices, and worker instruction and training.

A risk assessment must be completed for every work task and will take into account, for example, the amount of lead in the material, the nature of the work and potential level and duration of worker exposure to lead. Because lead is a designated substance requiring employers to keep exposures as low as reasonably achievable, an exposure control plan must be developed based on the risk assessment.

As part of the risk assessment, the new Regulation will allow qualified persons to estimate worker exposures to lead by using resources like industry surveys and peer-reviewed research data. A person is qualified if he or she is familiar with the work, the hazards of lead exposure and the means to control those hazards, through education, training and experience. The employer can then develop and implement exposure

control plans for protecting workers from harmful effects of lead based on the anticipated exposures.

As part of the regular inspection and enforcement activities, WorkSafeBC Officers will continue to ensure appropriate controls are in place and that workers are aware of the hazards and risks.

Benefits of the changes for employers

The changes to the Regulation are expected to clarify the requirements related to protecting workers from lead dust, mist or fume. The short duration of many work activities that generate lead dust, mist or fume can make getting reliable air monitoring data difficult. Instead of collecting their own air samples, the new section of the Regulation will allow employers to rely on objective monitoring data, such as data from industry surveys or peer-reviewed scientific research.

One example of a resource that uses objective monitoring data is the work operations and activities described in Part 3 of WorkSafeBC's publication *Safe Work Practices for Handling Lead*. The guidebook provides potential airborne lead concentrations for some common lead paint abatement work activities and classifies them into risk levels. Based on the risk level, employers can implement recommended engineering and administrative controls to reduce or eliminate lead exposure. Also, the guidebook provides information on respiratory protection, if it is necessary to further reduce worker exposures.

For more information

To learn more about other lead resources, **go to the information page about lead** on **worksafebc.com**.

WorkSafeBC Guidebook: *Safe Work Practices for Handling Lead*