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## **Lead-Containing Paint Exposure Control Plan (ECP) Entry into a construction site with a building built prior to 2005**

NOTE: City of Victoria employees entering building for inspection or regulatory purpose(s) are entering a site for which either:

- The owner must provide and maintain the owner's land and premises that are being used as a workplace in a manner that ensures the health and safety of persons at or near the workplace, or
- The prime contractor on a multiple-employer workplace must (a) ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and (b) do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the Workers Compensation Act and OHS Regulation.

**Work procedures established by the owner, prime contractor or contractor for working with and around lead-containing materials should protect City of Victoria workers and all other workers on site.** This ECP has been developed to provide additional protection if these work procedures are either insufficient or not followed.

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Removing lead-containing paint without proper controls can generate lead dust. Lead enters the body when the dust is inhaled or ingested (swallowed). Once it is in the bloodstream, lead can be carried throughout the body. Lead exposure can cause a number of health effects, including weakness, headaches, stomach cramps, muscle and joint pain, and memory problems

### **Health Hazards from lead exposure**

Lead interferes with many body processes and is poisonous to most organs and tissues, including the bones, intestines, kidneys, nervous system, and reproductive organs. Acute lead poisoning (high exposure over a short period of time) can cause fatigue, anemia, constipation, and damage to the nervous system. Chronic lead poisoning (exposure over a longer period of time) can cause fatigue, joint pain, and weakness. Lead poisoning can damage the fetus in pregnant female workers, and impair fertility in male workers. Workers are exposed to lead when they inhale lead-containing dust or ingest lead residue from their hands (for example, when eating, chewing gum, or smoking). Lead is a suspected human carcinogen and has been shown to cause cancer in laboratory animals.

### **Purpose and responsibilities:**

City of Victoria has a duty to protect our workers from lead exposure. Studies show that the removal of lead-containing paints and coatings generate airborne lead dust well in excess of safe levels. Effective controls are available to protect workers from harmful exposure.

A combination of control measures will be required to achieve this objective. We commit to being diligent in our efforts to select the most effective control technologies available, and to ensure that the best practices, as described in this exposure control plan (ECP), are followed at our worksites.

### **The employer is responsible for the following:**

- Ensuring that the materials (for example, tools, equipment, personal protective equipment [PPE]), and other resources (for example, worker training) are readily available to fully implement and maintain this ECP.
- Ensuring that supervisors and workers are educated in the hazards of lead exposure, and trained to work safely during the removal of lead-containing paints and coatings.
- Ensuring that workers follow the requirements of the Occupational Health and Safety Regulation and the *Workers Compensation Act*.
- Maintaining written records of training (for example, proper use of respirators), fit-test results, crew talks, and inspections (for example, of equipment).
- Conducting an annual review (or more often if conditions change) of the effectiveness of the ECP. This includes a review of available control technologies to ensure that these are selected and used when practicable.
- Initiating immediate investigations into incidents/accidents and reporting these to WorkSafeBC.
- **Work with the owner or qualified coordinator (as appointed by the Prime Contractor, if one has been designated) to ensure the coordination of health and safety activities for the worksite.**

### **Supervisors are responsible for the following:**

- Providing adequate instruction to workers on the hazards of lead exposure.
- Selecting and implementing the appropriate control measures.
- Ensuring that workers using respirators have been properly trained and fit-tested, and that the results are recorded.
- Ensuring that work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring that workers use appropriate engineering controls and wear the necessary PPE.
- Immediately correcting unsafe acts and conditions.

### **Workers are responsible for the following:**

- Participating in all required health and safety education and training.

- Using the assigned protective equipment in an effective and safe manner.
- Following established work procedures as directed by the supervisor.
- Reporting any unsafe conditions or acts to the supervisor.
- Reporting to the employer any exposure incidents or any signs or symptoms of lead illness.

### **Hazard identification and risk assessment**

- Lead-containing paints can contain anywhere from 0.009% to 50% lead by weight. Studies have shown that removal of paint with a lead content as low as 0.06% can generate airborne concentrations of lead that approach the occupational exposure limit.
- Removing lead-containing paint without the use of proper controls and PPE can expose workers to levels of airborne lead dust that are above the exposure limit listed in the Regulation.
- Unprotected workers or other persons may be exposed to the hazards of lead. All lead work locations will be enclosed by barriers or barrier tape and identified with signs or placards.

### **Exposure limit**

- The occupational exposure limit (OEL) for inorganic lead is 0.05 milligrams per cubic metre ( $\text{mg}/\text{m}^3$ ).
- Because lead is a suspected human carcinogen and linked with cancer in animals, workplace exposures must be reduced to levels that are As Low As Reasonably Achievable (ALARA) below the OEL.

### **Lead dust controls**

- The Regulation requires employers to select lead dust controls based on the following hierarchy:
  1. Engineering controls (for example, barriers, enclosures, general ventilation, local exhaust ventilation)
  2. Administrative controls (for example, wash stations, separate eating and changing areas, and limiting the time workers are exposed to lead)
  3. Personal protective equipment (such as respirators and disposable coveralls)

### **Acceptable control methods for controlling exposure to lead-containing materials**

- The following control options will be used to eliminate or reduce the risk to workers from the hazards of lead dust exposure.

Work activity	Dust suppression	Other controls	Respirator type
Entry into a construction site with a building built prior to 2005	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Request a copy of the building's pre-renovation or pre-demolition hazardous materials survey</li> <li>Review the report to understand what lead containing products are present</li> <li>If the report is not available, and if the following activities are being done, wear PPE: <ul style="list-style-type: none"> <li>Grinding</li> <li>Sanding</li> <li>Sandblasting</li> <li>Dry sweeping</li> <li>Working in dust and debris</li> <li>Using torches and heat guns</li> </ul> </li> <li>Personal hygiene – wash hands before going to the bathroom and before eating, drinking or smoking.</li> <li>Do not eat, drink, smoke, chew gum or nail bite while on site.</li> </ul>	<ul style="list-style-type: none"> <li>NIOSH-approved single-use N95, N99, or P100 respirator, or</li> <li>Half-face respirator with HEPA P100 series filters</li> </ul>

### **Respiratory protective equipment**

- Each worker will be fit-tested if a respirator is required.
- If a worker is required to wear a respirator that requires an effective seal with the face for proper functioning, the worker must be clean-shaven where the respirator seals with the face.
- When the worker notices a notable resistance to breathing, the respirator filters must be replaced.
- Respirators will be used, cleaned, and stored in accordance with the respiratory protection program.

### **Worker training for lead exposure**

- Training will be performed by the employer or the employer's designate.
- Training topics:
  - Health hazards of lead exposure
  - Engineering controls and safe work practices used to protect workers
  - The importance of proper equipment control and maintenance
  - Housekeeping procedures
  - Proper use of respirators and the respirator program
  - Personal hygiene procedures to reduce exposures
  - The details of the exposure control program for lead

### **Annual review**

- This ECP will be reviewed at least annually and updated as necessary by the employer, in consultation with the joint health and safety committee.