



## Abrasive (Sand) Blasting Guideline

Abrasive (Sand) Blasting operations do not need to apply for permits to operate under *The Clean Air Act* as industrial sources. However, they are required to voluntarily follow guidelines, which should reduce or eliminate any environmental risk associated with abrasive (sand) blasting.

Whether an industry is or is not permitted does not affect Saskatchewan Environment's role in responding to nuisance complaints. Control Orders may be used for any contravention of *The Clean Air Act*. A company that is the object of complaints or does not adhere to the appropriate guidelines may be permitted, at the discretion of the environmental project officer, even though the industry group, as a whole, is considered low risk.

### OPERATING REQUIREMENTS – GENERAL

- Abrasive blasting operation in an urban/industrial setting should be performed indoors, in an approved blasting enclosure and conform to all regulations set out by the Occupational Health and Safety Branch of the Government of Saskatchewan, Department of Labour.
- If the abrasive blasting operation is outdoors, where people, property, or the environment may be affected, the company/individual performing the sandblasting must tarp the area surrounding the object being blasted to minimize escape of fugitive dust emissions.
- The employer/individual performing the sandblasting shall ensure all practicable measures be taken to prevent fugitive dust emissions from entering the ventilating/heating systems of buildings, vehicles, property, etc. in the surrounding vicinity. An outdoor blasting area shall be kept free of spent grit to prevent windblown particulates.
- Sandblasting of outdoor buildings, bricks, facades, etc. must be tarped around the working area, (above 3 metres, below 3 metres, and sides 3 metres) to minimize dust emissions as much as possible.
- Avoid sandblasting on windy days where people are directly downwind.
- Prevent paint chips, abrasive blast material (before blasting) and grit waste from coming in contact with stormwater runoff and surface water bodies.
- Should the item being blasted be of sufficient size or not practical to be enclosed, the above conditions may be waived provided the following isolation distances are met:
  - 0.5 kilometre from any roadway where visibility from dust may be impaired;
  - 1 kilometre or more from any residence or business; and
  - 2 kilometres from the boundary of any city, town, village, or hamlet.
- The operator (company) is obliged to ensure all practical measures are taken to clean all equipment, property, etc. that may have been impacted by the blasting.



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## OPERATING REQUIREMENTS – SUSPECTED HAZARDOUS SUBSTANCES

- Prior to any abrasive blasting, determine if it is likely that the paint being removed contains heavy metals such as lead. Heavy metals may be found in residential applications prior to the late 1970's or in industrial applications.
- The Toxicity Characteristic Leaching Procedure (TCLP) may be used for preliminary testing. If testing indicates the presence of heavy metals, precautions must be taken to protect human health and the environment.
- Wastes meeting the hazardous criteria (see Table 1 for common contaminants) must be disposed of as hazardous substances.
- To protect the environment, the spent paint, paint chips, grit waste, etc., must be collected and disposed of appropriately.
- Prior to starting work that will produce a hazardous waste, an Emergency Response Contingency Plan should be prepared. The Plan should include proposed actions in response to potential accidents or spills related to the waste material.
- Segregate waste whenever possible to reduce treatment, disposal, and management costs. It is particularly important to separate non-hazardous wastes from hazardous wastes because of different regulatory requirements and different treatment and disposal costs.
- It is the responsibility of the generator of the waste to properly identify, contain, and dispose of hazardous materials.
- For the occasional job or small operator, it is recommended that a hazardous waste disposal company be contracted to handle the waste material.

**TABLE 1: HAZARDOUS WASTE**

Contaminant	Leachate (mg/L) <sup>1</sup>	Concentration (mg/L)
Lead	0.5	600 <sup>2</sup>
PCB	n/a	5 <sup>3</sup> ; and greater than 1 kg

<sup>1</sup> Transportation of Dangerous Goods Regulations (Clear Language) 2002

<sup>2</sup> Canadian Council for Ministers of Environment (CCME). June 2001. Canadian Environmental Quality Guidelines.

<sup>3</sup> Government of Saskatchewan, April 11, 1989. *PCB Waste Storage Regulations; Chapter E-10.2 Reg 6.*

## DEFINITIONS

- **“abrasive blasting, blasting, or sandblasting”** means the cleaning, smoothing, roughening or removing of part of the surface of any article by the use of an abrasive, jet of sand, metal shot, grit or other material propelled by compressed air, steam or by a wheel.
- **“permit”** means a permit issued pursuant to Sections 5, 7, and 9 of *The Clean Air Act*.
- **“Toxicity Characteristic Leaching Procedure (TCLP)”** is a laboratory test that measures how much of certain toxic metals could leach from a waste and potentially migrate into groundwater.

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