

Alberta Releases Guide to Exposure Control at Contaminated Sites



When a site has been contaminated, it should ideally be remediated, that is, the pollutants should be removed and any environmental damage done to the property repaired.

But remediation isn't always possible or feasible. In such cases, the best you may be able to do is manage the risks posed by a contaminated site.

Alberta Environment and Parks released a new guide that spells out the requirements for risk management using the exposure control method. Although the guide is only binding on contaminated sites located in that province, it does provide useful information for property owners in other jurisdictions who want and are permitted to use exposure control on their contaminated sites.

The Alberta Exposure Control Guide explains that exposure control may be appropriate:

- As an interim step until remediation guidelines can be met
- When remediation isn't an immediately viable option or is severely restricted by constraints
- When remediation isn't in the best interests of the environment.

Exposure control involves the use of chemical or physical exposure barriers and/or administrative controls.

Examples of chemical or physical/engineered barriers include:

- Soil cover to prevent direct exposure to contamination
- Constructed barriers and liners to prevent migration of contamination
- Hydraulic controls to limit or alter groundwater flow
- Physical access barriers or restrictions to the property
- Point-of-exposure or point-of-use controls, such as water treatment or air filtration.

Examples of administrative controls include:

- Security programs to restrict access to a contaminated site

- Groundwater use restrictions
- OHS programs for worker safety
- Building placement restrictions
- Programs to prevent activities that put people or the environment at risk.

Exposure control requires development of a risk management plan that spells out how the proposed site management strategy will be implemented. Such a plan should:

- Mitigate and manage any potential for adverse effect on human health and the environment
- Monitor on-site and off-site conditions
- Include contingency measures to respond to adverse changes in conditions
- Prevent worsening of off-site conditions
- Manage contamination if disturbed by future activities, such as excavation
- Notify future affected parties of site conditions.