

QUALITY OF TREATED WASTE OR CONTAMINATED SOIL USED AS INTERMEDIATE COVER AT CLASS II LANDFILLS

ACCEPTABLE INDUSTRY PRACTICES

February 2012

Background

Intermediate cover or daily cover means soil or other suitable material that is used to cover compacted solid waste in a landfill cell or trench in order to contain the waste and control vectors, fire, odour, erosion, moisture and aesthetics.

While soils or overburden are the traditional material employed as daily or intermediate cover at landfills, alternative suitable cover material may be derived from dewatered sludge, asphalt pavement, concrete, oily solids, drill cuttings or synthetic material. More generally, suitable intermediate cover material may include specific wastes, contaminated soils or oily solids, treated to meet the following criteria.

Chemical Criteria

Besides possessing a texture and physical properties that make it appropriate to be used as intermediate or daily cover, a suitable cover material shall meet the following chemical quality:

1. pH between 6.5 to 9.0
2. Flash point > 60° C
3. Chloride content < 3000 mg/kg
4. Total petroleum hydrocarbons < 2 per cent per weight (20 000 mg/kg)

5. The heavy metal content shall not:

(a) Exceed the criteria for industrial site use of the *CCME Soil Quality Guidelines for the Protection of Human Health and the Environment*, and,

(b) Produce **TCLP*** leachates that exceed the limits identified in Table 2, Part 4 of the Alberta User Guide for Waste Managers

Summary

Intermediate cover prepared from contaminated soil or waste including treated oily solids shall be assessed on a case-by-case basis taking into consideration their nature, properties and the quality criteria identified above.

Meeting requirements 1 to 5 is equivalent to saying that whatever the material intended to be used as intermediate cover, it's quality meets the quality required for CCME industrial site use, and simultaneously does not generate hazardous leachates.

Alberta User Guide for Waste Managers outlines the requirements for waste management, including hazardous waste and hazardous recyclables, in Alberta and is available at: environment.gov.ab.ca/info/library/7423.pdf.

CCME Soil Quality Guidelines for the Protection of Human Health and the Environment accessible at <http://ceqg-rcqe.ccme.ca>

Copies of Alberta's Acts, Regulations and Codes of Practice are available from the Queen's Printer at <http://www.qp.gov.ab.ca>

***TCLP** stands for *Toxicity Characteristic Leaching Procedure*