

Temporary Process Approved to Characterize MTBE in Water and Soil

Introduction

Methyl tertiary-butyl ether (MTBE) is a synthetic chemical that has been added to gasoline to increase the octane rating. In 2000, about 9% of gasoline sold in BC contained MTBE, and as of late 2000 its use was discontinued.

Why is it a concern?

While adding MTBE to gasoline can reduce hazardous emissions in vehicle exhaust, if spilled on land, it can contaminate soil and especially groundwater, where it resists breakdown. The ministry has set aquatic life, livestock watering and raw drinking water quality guidelines for MTBE. The most stringent of those guidelines, the raw drinking water guideline is based on its objectionable taste and odour, which can make water unsuitable to drink, even though the concentrations are well below those posing any health risks. MTBE has been discovered at a number of contaminated sites in BC.

Contaminated Sites Standards for MTBE

The Director of Waste Management under the *Waste Management Act* adopted effective March 1, 2002, new water quality standards for MTBE to protect aquatic life, livestock, and drinking water. They are used in the assessment and remediation of sites under the Contaminated Sites Regulation.

However, soil quality standards for MTBE have not yet been established, and this has left questions about the need to characterize and clean up sites for MTBE in soil.

New MTBE Characterization Process Adopted

In response, the Director of Waste Management has adopted a temporary approach for characterizing sites where MTBE is a potential contaminant of concern. This could be based on a general history of commercial or industrial use of a site, or be suggested by other information, such as results from a preliminary or detailed site investigation.

The approach relates to an application for a Determination of a site's status as a contaminated site, an Approval in Principle, a Certificate of Compliance or a Contaminated Soil Relocation Agreement. It has a number of conditions, as outlined below:

1. Surface water and groundwater characterization for MTBE is required in order to demonstrate compliance with the existing Director's standards for MTBE in water.
2. Soil characterization for MTBE is not required in order to demonstrate compliance with existing nonscheduled toxic substance (NSTS) policy to remediate to ministry approved non detection limits, provided:

- ⇒ the site would otherwise be in compliance with all other requirements for all substances other than MTBE which are potential contaminants of concern, and
- ⇒ the application and all required supporting documents comprising the submission package are date stamped by the ministry before the end of business on October 31, 2003.

3. Certificates of Compliance issued for sites under the above conditions will certify compliance with the Director's MTBE water quality standards but will not refer to MTBE in soil unless the site has been remediated to the approved ministry non detection limit for MTBE in soil.
4. Members of the Roster of Professional Experts may make recommendations to the ministry related to certification of MTBE sites meeting the above conditions.

What will Occur After October 31, 2003?

After October 31, 2003, the ministry will require sampling, analysis and submission of data for MTBE in soil, for any site being characterized for the presence of MTBE. The data would be used to determine compliance with nonscheduled toxic substance policies prior to issuing a Determination of a site's status as a contaminated site, an Approval in Principle, a Certificate of Compliance or a Contaminated Soil Relocation Agreement.

For more information, contact the Environmental Management Branch, at (250) 387-4441.

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