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MTBE Sampling Rules Adopted by EPC

The 1999 Iowa legislature passed 1999 Iowa Acts, House File 772 that contains a provision in Section 15, paragraph 4"c" requiring the testing for MTBE in soil and water samples collected at LUST sites after July 1, 1999. The Environmental Protection Commission adopted rules to implement the law at their June 21, 1999 meeting. The rules were filed both emergency with implementation July 1, 1999, the effective date of the law, and for notice of public comment.

The rules were adopted emergency because of the immediate need to implement the new provision. The department is required to provide the information on the MTBE sampling to a legislative interim committee and report findings and recommendations to the 2000 Session of the Seventy-eighth General Assembly.

You may send written comments on the rules until Tuesday, August 3, 1999 to UST Supervisor, Iowa Department of Natural Resources, 502 E. 9th St., Des Moines, IA 50319..

In order to assure reliable and accurate analytical results, the rules require MTBE analysis be conducted by Gas Chromatography/Mass Spectrometry (GC/MS) using the GC/MS version of OA-1 , "Method for Determination of Volatile Petroleum Hydrocarbons (gasoline)," revision 7/27/93, or US Environmental Protection Agency Method 8260B, SW-846, "Test Methods for Evaluating Solid waste," Third Edition. Using gas chromatography by itself as the analytical method results in false positives or negatives to be reported due to interference.

Any laboratory used for analysis of MTBE must have UST laboratory certification in Iowa. The certified laboratory is not required to have analyte certification for MTBE at this time. The requirements in the rule must be followed.

If you have any questions concerning this memo or on the attached rule proposal, please contact Elaine Douskey at (515)281-8011 or elaine.douskey@dnr.iowa.gov.

567--135.19 (455B) Analyzing for methyl tertiary-butyl ether (MTBE) in soil and groundwater samples.

135.19(1) General. The objective of analyzing for MTBE is to determine its presence in soil and water samples collected as part of investigation and remediation of contamination at underground storage tank facilities.

135.19(2) Required MTBE testing. Soil and water samples must be analyzed for MTBE when collected for risk-based corrective action as required in rules 135.8(455B) through 135.12(455B). This includes but is not limited to:

a. Risk-based corrective action (RBCA) evaluations required for Tier 1, Tier 2, and Tier 3 assessments and Corrective Action Design Reports.

b. Site monitoring.

c. Site remediation monitoring.

135.19(3) MTBE testing not required. Soil and water samples for the following actions are not required to be analyzed for MTBE:

a. Closure sampling under rule 135.15 unless Tier 1 or Tier 2 sampling is being performed.

b. Site checks under subrule 135.7(3) unless Tier 1 or Tier 2 sampling is being performed.

135.19(4) Reporting The analytical data must be submitted in a format prescribed by the department.

135.19(5) Analytical methods for methyl tertiary-butyl ether (MTBE). When having soil or water analyzed for MTBE from contamination caused by petroleum or hazardous substances, owners and operators of UST systems must use a laboratory certified under 567--Chapter 83 for petroleum analyses. In addition they must ensure all soil and water samples are properly preserved and shipped within 72 hours of collection to a laboratory certified under 567---Chapter 83 for petroleum analyses.

a. Sample preparation and analysis shall be by:

(1) GC/MS version of OA-1, "Method for Determination of Volatile Petroleum Hydrocarbons (gasoline)," revision 7/27/93, University Hygienic Laboratory, Iowa City, IA, or;

(2) US Environmental Protection Agency Method 8260B, SW-846, "Test Methods for Evaluating Solid Waste," Third Edition.

b. Laboratories performing the analyses must run standards for MTBE on a routine basis, and standards for other possible compounds like ethyl-tertiary butyl ether (ETBE), tertiary-amyl methyl ether (TAME), diisopropyl ether (DIPE), and tertiary-butyl alcohol (TBA) to be certain of their identification should they be detected.

c. Laboratories must run a method detection limit study and an initial demonstration of capability for MTBE. These must be kept on file.

d. The minimum detection level for MTBE in soil is 15 ug/kg. The minimum detection level for MTBE in water is 15 ug/l.