

COMMENT/RESPONSE DOCUMENT

Proposed Changes to #253-0300-100: Land Recycling Program Technical Guidance Manual Section IV.E

Comment 1. Several commenters (5, 7, 9) suggested the removal of the semivolatile substance fluorene and phenanthrene from the short list for the kerosene/fuel oil No. 1 and diesel/fuel oil No. 2 categories. The rationale for this is that these compounds rarely drive a remediation, if they are detected at all. The removal of these substances will reduce the analytical costs of investigations by eliminating analyses by a separate analytical methodology.

Response: The experience of the DEP regional offices is similar to that reported by the commenters. Fluorene and phenanthrene have rarely been detected at concentrations that exceed the Statewide health standard unless separate phase liquids are present. The Department agrees that the removal of these substances from the kerosene/fuel oil No. 1 and diesel/fuel oil No. 2 categories is warranted and has made the suggested deletions.

Comment 2. Several internal comments were received regarding the proposed language describing how the Department will transition from the old list to the new. It was suggested that the language clearly define when the new list must be used by defining specific events that will trigger the use of the revised list.

In addition, one commenter (3) asked how the Department will regard sites that have used the old list in terms of reopening sites if future exceedances of the standards for substances not on the old list are discovered.

Response: The Department has revised the transition language to specify when the new list must be used.

In terms of reopening cases, the Department will continue the policy only to reopen cases where substantial impacts to human health or the environment have been documented or are imminent as the result of using the old list.

Comment 3. Several comments were received relating to the nomenclature used for 1,3,4-trimethyl benzene. (4, 6)

Response: The two names, 1,2,4-trimethyl benzene and 1,3,4-trimethyl benzene, because of the resonance of the benzene ring, actually refer to the same substance. This substance is listed in the Chapter 250 regulations using both names, and that convention has been adopted in the table presenting the short lists.

Comment 4. We recommend implementing the revisions exactly as proposed by the PA DEP. (1)

Response: Thank you for your comment.

Comment 5. Why have the common components TBA, DIPE and ETBE been left off of the unleaded short list? (2)

Response: The Department considered including t-butyl alcohol (TBA) in the revised list, but toxicological data are not available to allow the development of a Statewide health standard for this substance. The same applies to the additives DIPE and ETBE.

Comment 6. The addition of 1,3,4-trimethyl benzene and 1,3,5-trimethyl benzene to the short list of analytes for the gasoline (leaded and unleaded), kerosene/fuel oil #1, diesel fuel/fuel oil #2, and mineral oil categories is understandable given that trimethyl benzene is found in crude oil and is not routinely removed during the refining process. Therefore, 1,3,4 and 1,3,5-trimethyl benzene could very well be present at percentage levels in the listed petroleum categories, and potentially represent a risk to human health and the environment if released due to the storage or transfer of these fuels.

The addition of methyl tertiary butyl ether (MTBE) to the respective short list of analytes for the kerosene/fuel oil #1 and diesel fuel/fuel oil #2 categories is not clear given that MTBE has historically been used as an oxygenating additive in reformulated gasoline. Many government and industry sources discuss in publications (API, 2000; ATSDR, 1997, USEPA, 1999) or their websites (USEPA and USDOE) that MTBE has been released into the environment due leaks or spills associated to the storage and/or transfer of gasoline. None of these documents or websites indicate that MTBE has been released historically in quantities that pose a risk to human health or the environment from leaks and/or spills originating from the storage or transfer of kerosene, diesel fuel, or #1/ #2 fuel oil. While it is possible that these fuels could become cross contaminated with MTBE during the transport of fuel in the same pipelines or delivery trucks that also have carried reformulated gasoline, the literature does not suggest that this possibility has resulted in frequent and significant releases of MTBE into the environment. It is recommended that additional justification be given to further substantiate the rationale (e.g. number of historical observations of MTBE being found at levels posing a potential risk at sites where kerosene, diesel fuel, or fuel oil was released) for MTBE being added to short list for the above referenced petroleum categories or that it not be added at all until further information is gathered. (8)

Response: There is a growing body of evidence that MTBE contamination is being found in releases of petroleum products other than unleaded gasoline. The EPA web site at <http://www.epa.gov/oust/mtbe/mtbefaqs.htm> and <http://www.epa.gov/OUST/mtbe/LL32heatoil.pdf> acknowledges the potential for MTBE contamination of petroleum products other than gasoline. In addition, the Department's Regional Offices have found MTBE contamination in releases of petroleum products other than unleaded gasoline. Therefore it is reasonable to add MTBE to the proposed categories of petroleum products.

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