pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMENT AND RESPONSE DOCUMENT

ADMINISTRATION OF THE LAND RECYCLING PROGRAM

25 *Pa. Code* Chapter 250
Environmental Quality Board Regulation #7-486
(Independent Regulatory Review Commission #3057)

INTRODUCTION

On May 17, 2014, the Environmental Quality Board (Board) published a *Pennsylvania Bulletin* notice of a written comment period on the proposed amendments to Chapter 250 (relating to Administration of Land Recycling Program) (44 *Pa.B.* 2980). The comment period opened on May 17, 2014 and closed on June 17, 2014.

This document summarizes the written comments received during the public comment period as well as those received from the Independent Regulatory Review Commission (IRRC). In assembling this document, the Board has addressed all pertinent and relative comments associated with this package. Comments of similar subject material have been grouped together and responded to accordingly.

During the public comment period, the Board received two comments from two organizations and the Independent Regulatory Review Commission. The following table lists these organizations. The Commentator ID number is found in parenthesis following the comments in the Comment and Response Document.

Table of Commentators

Commentator ID #	Name	Address
1.	Andrew Frishkorn Michael Baker Jr., Inc.	100 Airside Drive Moon Township, PA 15108
2.	Joseph Leighton API-PA	300 N. 2nd Street Suite 902 Harrisburg, PA 17101
3.	David Sumner Executive Director Independent Regulatory Review Commission (IRRC)	333 Market Street 14thFloor Harrisburg, PA 17101

Appendix A, Table 4
Residential Medium-Specific Concentrations (MSCs) for Vanadium and Arsenic

1) Comment: The commentator noted that the residential soil medium-specific concentration (MSC) for vanadium is proposed to be decreased by 100 times from 1,500 mg/kg to 15 mg/kg. Furthermore, the commentator asserts that vanadium background concentrations in Pennsylvania range from a minimum of 15 mg/kg to a maximum of 150 mg/kg with an average of 80 mg/kg (Dragun, 2005[1] / USGS, 1981[2]). Therefore, the commentator felt it would be more practical to set the standard at the maximum background concentration of 150 mg/kg. A similar argument was made for arsenic which has background concentrations ranges from 3.8 mg/kg to 31 mg/kg (Dragun, 2005 / USGS, 1981). The commentator felt that the regulations should not become so restrictive that essentially every property in Pennsylvania will exceed the residential MSC and associated clean fill limits for vanadium. The commentator recommends that the EQB establish standards for vanadium and arsenic based on background studies. (1)

IRRC requested an explanation of the scientific data relied upon for lowering the MSCs for vanadium and arsenic and to explain how the new standards are necessary to protect the public health. If the new standards are expected to impact a greater number of people, it needs to be explained why the new standards should have no adverse effects nor increase costs for the regulated community. (3)

Response: A Provisional Peer-Reviewed Toxicity Value (PPRTV) oral reference dose (RfD_o) of 0.00007 mg/kg-day was published by the U.S. Environmental Protection Agency (EPA) in the 2009 vanadium PPRTV Derivation Support Document, *Provisional Peer-Reviewed Toxicity Values for Vanadium and Its Soluble Inorganic Compounds Other than Vanadium Pentoxide* and is the basis for the change in the MSCs for vanadium. The prior MSCs for vanadium were based on an RfD_o published by EPA in the Health Effects Assessment Summary Tables (HEAST). The PPRTV RfD_o is based on a peer-reviewed toxicity analysis that undergoes greater rigor than the RfD_o published in HEAST. The Board and the Cleanup Standards Scientific Advisory Board (CSSAB) assign greater weight to a PPRTV RfD_o than a HEAST RfD_o consistent with 25 Pa. Code §250.605(a). Therefore, this new value is the protective human health level for vanadium under the Land Recycling and Environmental Remediation Standards Act (35 P.S. § 6026.908, "Land Recycling Act").

The Land Recycling Act and the regulations promulgated thereunder require the calculation of Statewide health standard MSCs based on human health toxicity values only and not on background soil levels. However, the Land Recycling Act does recognize that human health toxicity values may result in MSCs that are numerically less than the background levels at specific sites in the Commonwealth. In that case the Land Recycling Act states that the background standard would apply, not the Statewide health standard. (35 P.S. § 6026.303(d) (relating to Statewide health standard)). Therefore, persons may establish the background

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[1]Dragun, James and Chekiri, Khaled. "*Element in North America Soils.*" Amherst Scientific Publishers: Amherst, Mass. 2005.

[2] Boerngen, J.G and Shacklette, H.T., "*Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States.*" Open File Report 81-197. U.S. Geological Survey. 1981.

concentration at the site pursuant to the requirements of the Land Recycling Act and the regulations promulgated thereunder and are not required to remediate below that level.

The vanadium and the arsenic Statewide health standard MSCs are based on human health toxicity values that are published and peer-reviewed, according to sources approved under 25 Pa. Code § 250.605(a). This is the risk-based level that is deemed protective of human health under the Land Recycling Act. As identified above, the act provides that if Statewide health standard numeric values are lower than the background standard, persons do not have to remediate beyond the background standard established for the site. As a result, the new standards will not affect a greater number of persons or increase costs for the regulated community.

Appendix A, Tables 1 and 3B - Groundwater and Soil-to-Groundwater MSCs for MTBE

2) Comment: The commentator notes that neither the CSSAB nor the Storage Tank Advisory Committee (STAC) supports the groundwater and soil-to-groundwater MSCs for methyl tert-butyl ether (MTBE). STAC stated it did not support using DEP's interpretation for the MTBE drinking water advisory for odor, versus a more quantitative calculation in conjunction with EPA's methodology. Both CSSAB and STAC pointed out the standard in the proposed rulemaking as one based on aesthetics considerations. The commentator concurs with the CSSAB and STAC assessment that the proposed MTBE calculations do not use specific health-based standards. The commentator also supports the recommendations submitted by the two DEP advisory committees and recommends that the proposed rulemaking be altered to reflect science-based calculations in this one regard. (2)

IRRC requested that the advisory committees' concerns related to the MSCs for MTBE be addressed in the Preamble and the Regulatory Analysis Form of the final-form regulation. An explanation of how the MTBE standards meet the criteria established in Act 2 and how the MTBE standards adequately protect the public health, safety and welfare was requested. It was also requested that if the MTBE MSCs were not calculated using health-based criteria as required by the Land Recycling Act, the Board should exercise its statutory authority. (3)

Response: The Land Recycling Act requires federally or state promulgated groundwater MCLs and Health Advisory Levels (HALs) to be the groundwater MSC. (35 P.S. § 6026.301(c)). Currently six regulated substances have groundwater MSCs that are federally promulgated MCLs that are solely based on secondary effects (aesthetic thresholds, e.g. taste and odor). Since the Land Recycling Act requires the use of MCLs and HALs when available, the Act therefore allows for groundwater MSCs to be based on drinking water standards that are not health-based, but are aesthetic-based. EPA may include taste and odor considerations as well as health-based calculations in its promulgation of MCLs. (42 USCS § 300f(2)).

In the original Chapter 250 regulations published in the *Pennsylvania Bulletin* on August 16, 1997, the Board promulgated a groundwater MSC for MTBE of 20 µg/L based on a draft lifetime HAL published by EPA. In subsequent publications of the drinking water standards, EPA listed MTBE under a separate table, titled Drinking Water Advisories, with an odor advisory level of 20 µg/L. EPA concluded that despite limited health-based information, the drinking water advisory is consistent with human health protection goals. The Board decided not to propose a change in the MSC for MTBE because the drinking water advisory level reflects no

change in the degree of protectiveness from the original draft HAL. EPA continues to indicate that it is further evaluating MTBE for an MCL determination.

A response to IRRC's request that these concerns be addressed in the Preamble and the Regulatory Analysis Form can be found in Section G (Summary of Comments and Responses on the Proposed Rulemaking) of the Preamble and Section 14 of the Regulatory Analysis Form.