



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Environmental Cleanup & Brownfields

Land Recycling Program Technical Guidance Manual Section IV Revisions

**Cleanup Standards Scientific Advisory Board
Meeting
March 13, 2024**

Josh Shapiro, Governor

Jessica Shirley, Interim Acting Secretary

Acronyms

CSSAB – Cleanup Standards Scientific Advisory Board

MSC – Medium Specific Concentration

PQL – Practical Quantitation Limit

RSL – Regional Screening Level

SHS – Statewide Health Standard

SSS – Site Specific Standard

TGM – Technical Guidance Manual

VI – Vapor Intrusion

TGM Revision Process

General Approach

- Comments and suggestions for improvements to TGM gathered since last revision in 2019.
- Draft revisions to Sections II and III presented at November 9, 2023 CSSAB meeting.
- After input from Regional Offices and CSSAB, entire TGM will go out for public comment.

Section II & III Revisions

Not currently addressed in this draft

- Table of contents
- Section references within text
- Updated figures
- Page numbering and formatting

Section IV Revisions

Changes adopted throughout the section

- Removed references to PQLs

Section IV Revisions (Continued)

- A.
 - Clarified that elemental mercury now has VI screening values
 - Added explanation that planned off-site uses should be evaluated
- C.1
 - Added text clarifying VI pathway elimination via a clean water lens between the VI source and the building

Section IV Revisions (Continued)

- C.2
 - Added language to clarify how to evaluate garages and crawl spaces
- D. Preferential Pathways
 - Added language to clarify that if preferential pathways are eliminated via mitigation, then it no longer needs to be evaluated.

Section IV Revisions (Continued)

- D.2
 - Added use of owner survey/interview to options for evaluating significant foundation openings
- E.
 - Added text clarifying that presence of preferential pathways may require evaluation of structures outside the proximity distance
 - Expanded the discussion of the use of proximity distances in relation to preferential pathways

Section IV Revisions (Continued)

- F.1
 - Added language to clarify screening values are the used aquifer groundwater MSCs
 - Added language stating that only indoor air and soil gas screening values are calculated for mercury
- G.1
 - Added language to explain how a paved area can be evaluated similarly to a building slab

Section IV Revisions (Continued)

- G.2
 - Clarified the appropriate depth for a near-source soil gas sample
 - Added an explanation for an alternative method to obtain near-source soil gas samples
 - Added a paragraph to explain limitations of collecting near-source soil gas samples
 - Clarified that sub-slab samples are not subject to the temperature differential limitations

Section IV Revisions (Continued)

- G.2 (continued)
 - Added clarification regarding temperature differential and time limitations
 - Added language to clarify that if mitigation is chosen to eliminate the pathway, more than one VI sampling round is not necessary.
- G.3
 - Added clarification that modeling may be used for a slab on grade building with groundwater shallower than 5 feet.

Section IV Revisions (Continued)

- G.4
 - Added a new section to define and explain the methodology used to calculate soil gas and indoor air screening values for elemental mercury
- H
 - Revised language to clearly define the recommended inspection schedule for active mitigation systems
 - Clarified options to address offsite properties with potentially complete VI pathway

Section IV Revisions (Continued)

- K.4
 - Clarified using SHS screening values to identify VI source not screening under SSS
 - Added language to explain the reasoning behind using $1/10^{\text{th}}$ of the SHS values for SSS screening
 - Added clarifying language to how to use the adjusted SHS screening values
 - Added clarifying language to the appropriate RSL values to use

Next Steps for TGM

- Continue to update figures throughout TGM
- Evaluate additional input from CSSAB and regional office staff and make further revisions as necessary
- Final update to table of contents, section references, and page numbering
- Public comment period

Special Thanks

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Questions?

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