

Discussion Points

Recommendation 2025-1

Recommendation to the Use of Detection Limits in DWELR Reporting

Facts and Findings

- The Pennsylvania Department of Environmental Protection (PADEP) Laboratory Accreditation Advisory Committee (the Committee) is charged with advising on matters related to laboratory accreditation, data quality, and analytical integrity.
- It is a well-established laboratory practice that all results reported as non-detect be accompanied by the relevant Method Detection Limit (MDL) or Minimum Reporting Level (MRL), and this practice supports scientific transparency and the defensible use of analytical data.
- The responsibility for reviewing laboratory data for regulatory compliance with the Safe Drinking Water Act (SDWA) lies with the data user—in this case, PADEP's Bureau of Safe Drinking Water (BSDW)—and not with the Laboratory Accreditation Program (LAP), which only observes a limited subset of laboratory output during periodic assessments and cannot ensure consistent application of reporting limits across all submitted data.
- The Drinking Water Electronic Lab Reporting (DWELR) system currently includes a field for the Laboratory Reporting Limit (LLD), but this field is optional and frequently not populated by reporting laboratories, leading to inconsistencies and reduced transparency in submitted data.
- It is a standard expectation in analytical reporting that all chemistry data—detects and non-detects alike—be accompanied by the laboratory's reporting limit (MDL or MRL), and the omission of such values may compromise data comparability and regulatory defensibility.
- PADEP's BSDW has requested that laboratories reporting per- and polyfluoroalkyl substances (PFAS) results submit measured values down to the MDL while entering the higher MRL in the LLD field.
- This practice is inconsistent with accepted laboratory standards and may result in confusion, misinterpretation of detection capabilities, and improper evaluation of compliance data.

Discussion Points

Recommendation 2025-2

Recommendation to Revise 1-Hour Reporting Requirements for MCL, TT, and AL Exceedances under Chapter 109

Facts and Findings

- The Pennsylvania Department of Environmental Protection (PADEP) Laboratory Accreditation Advisory Committee (the Committee) is charged with advising on policies and procedures affecting laboratories operating under the Pennsylvania Safe Drinking Water Program.
- Current requirements under PADEP's Chapter 109 regulations mandate that laboratories notify the public water supplier within **1 hour** of determining **any** result that exceeds a Maximum Contaminant Level (MCL), Treatment Technique (TT), or Action Level (AL), regardless of the public health risk associated with the analyte or the type of sample tested.
- This 1-hour reporting requirement applies broadly to all exceedances, including those found in raw water samples and non-acute contaminants, which do not pose an immediate threat to public health.
- Surrounding states and other regulatory bodies generally limit their 1-hour notification requirements to MCL violations involving analytes with **acute health risks**, such as Total Coliform, E. Coli, and nitrate/nitrite, thereby focusing urgent reporting on contaminants that require immediate public health response.
- The broad application of PADEP's 1-hour reporting requirement imposes an undue burden on certified laboratories, public water suppliers, and PADEP staff by requiring rapid communications and documentation even in cases where public health is not imminently at risk.
- This practice consumes regulatory and laboratory resources and may contribute to unnecessary confusion, misprioritization, or administrative inefficiency.