

DRAFT RECOMMENDATION:
METHOD DETECTION LIMIT (MDL) REQUIREMENTS FOR CA ELAP FOTS:

ELTAC WORKGROUP:

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The use of the Method Detection Limit (MDL) is for the determination of laboratory compliance with accreditation requirements. The following guidance includes requirements, clarification, and permissions to facilitate implementation, regardless of the intent of the regulation.

- 1) All laboratories accredited under Fields of Testing pertaining to Clean Water Act compliance monitoring for the Regional Water Quality Control Board, State Water Resources Control Board – Division of Water Quality, or other related agencies (Title 22 § 64823 Fields of Testing 16 through 19, also known as Fields of Testing 108-111) must use the new procedure for determining the Method Detection Limit as described in the 2017 Method Update Rule for all methods where the MDL is required. The MDL procedure is not applicable to methods that do not produce results with a continuous distribution, such as, but not limited to, methods for whole effluent toxicity, presence/absence methods, and microbiological methods that involve counting colonies. The MDL procedure also is not applicable to measurements such as, but not limited to, biochemical oxygen demand, color, pH, specific conductance, many titration methods, and any method where low-level spiked samples cannot be prepared. MDL determinations using spiked samples may not be appropriate for all gravimetric methods (e.g., residue or total suspended solids), but an MDL based on method blanks can be determined in such instances. The new MDL procedure should be used by any laboratory using any method that is being reported to Regional Water Quality Control Board, State Water Resources Control Board – Division of Water Quality, or other related agencies for compliance purposes irrespective of whether the method is promulgated specifically for this application.
- 2) All laboratories accredited under Fields of Testing pertaining to Toxic Substance Control Act, Resource Conservation and Recovery Act, and Comprehensive Environmental Response, Compensation, and Liability Act compliance monitoring for the Department of Toxic Substance Control Act or other related agencies (Title 22 § 64823 Fields of Testing 8 through 13, also known as Fields of Testing 114-118) should use the Method Detection Limit as described in SW-846 Chapter 1 Third Update. The MDL procedure also is not applicable to measurements such as, but not limited to pH, specific conductance, many titration methods, flammability, corrosivity, and any method where low-level spiked samples cannot be prepared. Optionally, laboratories that are accredited for methods which require the determination of the MDL may use the new method described in the Method Update Rule without penalty.
- 3) All laboratories accredited under Fields of Testing pertaining to Safe Drinking Water Act compliance monitoring for the State Water Resources Control Board – Division of Water Quality (Title 22 § 64823 Fields of Testing 1 through 6, also known as Fields of Testing 102-105) and are accredited for methods which require the determination of the MDL may either use the MDL described in those individual methods or the new method described in the Method Update Rule without penalty, with the following exceptions:

When Part 136, Appendix B is explicitly cited by the Code of Federal Regulations (40CFR), the laboratory is required to follow the new procedure for determining the Method Detection Limit as described in the 2017 Method Update Rule. The applicable regulatory citations consist of methods for the analysis of Volatile Organic Compounds (VOC) including vinyl chloride and methods for the analysis of lead and copper.

When Part 136, Appendix B is explicitly cited by the method approved for drinking water analysis, the laboratory is required to follow the new procedure for determining the Method Detection Limit as described in the 2017 Method Update Rule. This is applicable to methods published by EPA and voluntary consensus standard bodies, such as ASTM International and the Standard Methods Committee.

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