

Virginia Division of Consolidated Laboratory Services
ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM
(1VAC30-45 and 1 VAC 30-46)

INFORMATION NOTICE CONCERNING

METHODS UPDATE RULE (2012)

June 12, 2012

What is the Methods Update Rule?

On May 18, 2012, EPA issued a **final rule** to approve several new or revised analytical methods, or test procedures, for measuring regulated pollutants in wastewater. The full title of this final rule is "*Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the **Clean Water Act**; Analysis and Sampling Procedures.*" This rule is also called the Methods Update Rule or MUR.

The Methods Update Rule includes:

- New and Revised Wastewater Methods
- Examples of Allowed Method Flexibility
- New QA/QC Requirements
- Clarifications and Corrections to Previously Approved Methods
- Revisions to Preservation and Holding Times

The final rule is available at:

http://water.epa.gov/scitech/methods/cwa/update_index.cfm.

How does the Methods Update Rule affect me?

The EPA approves analytical methods for measuring regulated pollutants in wastewater. The regulated community and laboratories use these approved methods for determining compliance with the Virginia Pollutant Discharge Elimination System (VPDES) and the Virginia Pollutant Abatement (VPA) permits.

The MUR:

- **Allows only one approved revision of a method to be used for testing under 40 CFR 136.**
- Includes new standardized quality assurance and control requirements.
- Makes some changes to sample collection, preservation, and holding times.

A permit holder or laboratory will need to review the MUR and evaluate the effect of the MUR on its current laboratory practices.

**NOTE: IMPORTANT INFORMATION ABOUT NAMING CONVENTIONS FOR
“STANDARD METHODS FOR THE EXAMINATION OF WATER AND
WASTEWATER”**

Every method published in the “*Standard Methods for the Examination of Water and Wastewater*” has an associated date the method was approved. The new MUR identifies Standard Methods by the approved date of the method rather than the Edition number. The approved date may be found by checking the footnote on the method, as illustrated below:

2310 ACIDITY*

2310 A. Introduction

Acidity of a water is its quantitative capacity to react with a strong base to a designated pH. The measured value may vary significantly with the end-point pH used in the determination. Acidity is a measure of an aggregate property of water and can be interpreted in terms of specific substances only when the

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*Approved by Standard Methods Committee, 1997.

The two snapshots below show the former 40 CFR 136 table format compared to the revised table format. Note that only one revision of **Standard Methods** is **approved** by the MUR in the second table below. Also note that the method is now referenced by appending the approval year to its name.

Former 40 CFR 136.3 Table 1B – List of Approved Inorganic Test Procedures

Parameter	Methodology ⁵⁸	Reference (method number or page)					
		EPA ^{35,52}	Standard methods (18th, 19th)	Standard methods (20th)	Standard methods online	ASTM	USGS/AOAC/other
1. Acidity, as CaCO ₃ , mg/L	Electrometric endpoint or phenolphthalein endpoint		2310 B (4a)	2310 B (4a)	2310 B (4a)-97	D1067-92, 02	I-1020-85 ²
2. Alkalinity, as CaCO ₃ , mg/L	Electrometric or Colorimetric titration to pH 4.5, manual, or		2320 B	2320 B	2320 B-97	D1067-92, 02	973.43 ³ , I-1030-85 ²

Revised 40 C FR 136.3 Table 1B – List of Approved Inorganic Test Procedures

Parameter	Methodology ⁵⁸	EPA ⁵²	Standard Methods	ASTM	USGS/AOAC/Other
1. Acidity, as CaCO ₃ , mg/L	Electrometric endpoint or phenolphthalein endpoint		2310 B-1997	D1067-06	I-1020-85 ²
2. Alkalinity, as CaCO ₃ , mg/L	Electrometric or Colorimetric titration to pH 4.5, Manual		2320 B-1997	D1067-06	973.43 ³ , I-1030-85 ²

The chart below summarizes the two methods from the Table 1B snapshots and demonstrates the specific impact of the approval date in relation to “Edition” numbers in Standard Methods. Note that for SM 2310 B and 2320 B:

- 18th and 19th editions were formerly approved prior to 1997 and now are not approved
- The methods were revised and approved in 1997, so the 20th, 21st, and online editions are all approved

Method	Edition	Published date	Approval date	MUR Approved?
SM 2310 B	18th ED	1992	1990	no
SM 2310 B	19th ED	1995	1990	no
SM 2310 B	20th ED	1998	1997	YES
SM 2310 B	21st ED	2005	1997	YES
SM 2310 B-1997	n/a	n/a	1997	YES
SM 2320 B	18th ED	1992	1991	no
SM 2320 B	19th ED	1995	1991	no
SM 2320 B	20th ED	1998	1997	YES
SM 2320 B	21st ED	2005	1997	YES
SM 2320 B-1997	n/a	n/a	1997	YES

A laboratory will need to evaluate its current methods by the approval date and determine if the method in use is acceptable for use according to the new MUR.

If the laboratory needs to change to a different revision of the method to comply with the MUR, will these changes be handled through the VELAP “Change In Scope” procedure?

Some laboratories will need to change to a newer revision of SM or ASTM or other methods. Many laboratories will need to change to a different naming format for SM methods even though their actual method procedure may not change. These changes must be made in the laboratory’s Standard Operating Procedures and in Quality Manuals, as well as any other place where the method is cited, e.g., reports, correspondences, bids, etc.

Due to the level of effort needed to transition all laboratories to update their quality systems to the approved methods defined by the MUR, **DCLS and DEQ will jointly communicate a phase-in timeline to become compliant with this rule.**

Laboratories are strongly encouraged to start immediately to:

- Review the scope of certification or accreditation, and determine if the methods on the laboratory’s scope are approved under the MUR.
- Where the laboratory currently has a certified or accredited method which is not approved under the MUR, the laboratory has two choices:
 - Use the newer revision of the method approved under MUR and implement changes necessary, including updates to the SOP and Quality Manual, to comply with the requirements of the MUR method in the laboratory’s processes. For example, a laboratory may change from SM 2310 B, 18th edition for acidity to SM 2310 B-1997. A Change in Scope form will not be required for this “one time” update. Or,
 - Withdraw the certification or accreditation for the method that is not approved under the MUR and implement a different approved method. For example, a laboratory may change from SM 2310B, 18th edition for acidity to ASTM D-1067-06. In this scenario a Change in Scope Request would be required.
- Make notations if the naming convention of a method in the laboratory’s current scope of accreditation or certification requires a change to conform to with the MUR. Keep this information readily available to compare to the laboratory’s new scope of certification or accreditation when it is provided.

When will I receive an updated certificate?

Updated or revised certificates will be provided on a schedule to be determined and announced by DCLS.

How soon must I move to the new method revision and the new method naming system?

Just as laboratories will have to make changes due to the requirements of the MUR, DCLS and other accrediting bodies will have significant changes ahead to convert current database conventions to the new SM nomenclature and to add newly approved tests. **There will be a phase-in period for these changes. This period will allow both the laboratories and the regulatory agencies time to respond to these updates.**

DCLS will work with the Virginia Department of Environmental Quality to establish and announce a date by which all VPDES and VPA permit holders and VELAP-certified or accredited laboratories must be in full compliance with the MUR requirements.

In the spirit of continued quality improvement, laboratories are encouraged to begin updating their quality system documentation and method procedures, and may do so at any time prior to the date established for compliance to this rule.