Memorandum

To: South Carolina Certified Laboratories

From: Office of Environmental Laboratory Certification, SCDHEC

Date: September 2021

Re: 2021 Clean Water Act Methods Update Rule & Expedited Rules for SDWA Analysis and Sampling Procedures (2018, 2021)

The US EPA issued a final rule on May 19, 2021, to approve new and revised analytical methods for the analysis of wastewater entitled "Clean Water Act Methods Update Rule for the Analysis of Effluent". As stated in the Summary of the rule: "The Environmental Protection Agency (EPA) is finalizing changes to its test procedures required to be used by industries and municipalities when analyzing the chemical, physical, and biological properties of wastewater and other environmental samples for reporting under EPA's National Pollutant Discharge Elimination System (NPDES) permit program." The changes adopted in this final rule fall into the following categories: New and revised EPA methods (including new and/or revised methods published by voluntary consensus standard bodies (VCSB), such as ASTM International and the Standard Methods Committee); updated versions of previously approved methods; methods reviewed under the alternate test procedures (ATP) program and, some corrections or amendments to the text and tables of 40 CFR 136.

The Methods Update Rule can be found here:
https://www.govinfo.gov/content/pkg/FR-2021-05-19/pdf/2021-09596.pdfh

Additionally, the EPA has published expedited rules that have updated versions of methods (and some new vendor methods) for use under the Safe Drinking Water Act. The major change was to include the method versions found in the 23rd edition of Standard Methods. These rules can be found here:
https://www.govinfo.gov/content/pkg/FR-2021-05-26/pdf/2021-10974.pdf
and here: https://www.govinfo.gov/content/pkg/FR-2018-10-12/pdf/2018-22162.pdf

The attached document outlines some of the method changes resulting from the 2021 Methods Update Rule and the Expedited Rules. We are only listing some common updates that will potentially affect many of our laboratories. **Our Office is requesting that all laboratories impacted by these rules to have the following changes in place as soon as possible after 1/01/22 but not later than 12/31/22: updating standard operating procedures (SOPs) and implementing any required changes in method procedures, preservation requirements, QA/QC requirements, etc. Updated method revisions should be reported on 2022 Proficiency Testing (PT) studies once the laboratory has updated their SOPs and/or received an updated certificate.** Laboratories will not be required to submit updated SOPs but must have them available in the laboratory upon use of the updated methods.

Updated laboratory certificates will be mailed to laboratories starting in January 2022. The "Application for Environmental Laboratory Certification" will be updated accordingly. Any questions regarding the Methods Update Rule or any expedited rules can be directed to labcerthelp@dhec.sc.gov or (803) 896-0970.

cc: Micheal Mattocks, Assistant Bureau Chief
Bureau of Environmental Health Services

Quality Control Requirements for Methods with the Same Year of Approval in Two Editions of Standard Methods

The laboratory must follow and meet the quality control requirements found in the most recent edition of Standard Methods which contains the approved method revision. For methods with a 2011 year of approval that are found in both the 22nd and 23rd Standard Method editions, the quality control in the 23rd edition is required to be met by the laboratory. Example: pH - SM4500 H^+B - 2011 is found in both the 22nd and 23rd editions of Standard Methods, therefore the QC found in section 4020 in the 23rd edition must be followed, because it is the most recent edition of Standard Methods that contains the approved SM4500 H^+B - 2011 method.

Preservation Footnote Change for Purgeable Halocarbons

Footnote #9 in Table II (Required Containers, Preservation Techniques, and Holding Times) now states for Purgeable Halocarbons - "If the sample is not adjusted to pH 2, then the sample must be analyzed within 7 days of sampling."

Chlorite/Chlorine Dioxide Method Revision Update

For Drinking Water analysis, the EPA Drinking Water Expedited Rule approved in 2018 still includes the methodology SM4500 ClO_2 C, E (2011). However, the Quality Control required for these methods is now found in the 23rd edition of Standard Methods. It has been reduced in a meaningful manner to require only a Method Blank analysis for this method instead of an LFB and an LFM.

Microbiology Method Changes

All the previous Standard Methods approved method versions have been updated to the respective versions found in the 23rd edition of Standard Methods. Be sure to incorporate any method changes into your microbiology method SOPs based on this update.

New Methods in Standard Methods Not Previously Approved

To obtain certification for any new methods, i.e., not previously approved under a different year of approval, the normal laboratory application process must be followed. For example, Nitrate-Nitrite by SM4500 NO-I is a new approved method in the MUR and the normal application procedures would apply. Please note that if the application has not been updated to contain the new method(s) you seek, please write the requested method legibly in the margin where the parameter is listed on the application.

Summary of Method Revisions

The following table outlines method revisions that will be updated on laboratory certificates in January 2022 under the Clean Water and Safe Drinking Water Acts for Standard Methods revisions, as applicable.

Parameter Changes Chemistry	**New Std Method Revision Version (23rd)**	**Previous Std Method Revision Version (22nd)**
Cyanide - all forms	2016	2011
Biochemical Oxygen Demand (BOD) SM5210B	2016	2011
Carbonaceous BOD (CBOD) SM5210B	2016	2011
Nitrate - SM4500 NO3D	2016	2011
Nitrate-Nitrite SM4500 NO3 E, F, H, I	2016	2011 (I was not approved)
Nitrate-Nitrite SM4500 NO3 J	2018	Was not approved
Nitrite-SM4500 NO3 E, F, I	2016	2011 (I was not approved)
Nitrite SM4500 NO3 J	2018	Was not approved
Oxygen, Dissolved SM4500-O B, C, D, E, F, G	2016	2011
Oxygen, Dissolved SM4500-O H	2016	Was not approved
Total Organic Carbon SM5310 B, C	2014 (D is still 2011)	2011
Residue, Total (TS) SM2540 B	2015	2011
Residue, Filterable (TDS) SM2540 C	2015	2011
Residue, Non-filterable (TSS) SM2540 D	2015	2011
Residue, Settleable (SS) SM2540 F	2015	2011
Residue, Volatile (VS) SM2540 E	2015	2011
Microbiology		
E. coli (MF) SM9222 B, I	2015	Was not approved
E. coli (MPN-Multiple tube) SM 9221 B, F	2014	2006
E. coli (MPN-Multiple-well) SM9223B	2016	2004
Fecal Coliform (Multiple tube) SM 9221 E, F	2014	2006 (F was not approved)
Fecal Coliform, (MF) SM 9222D	2015	2006
Enterococcus SM9230 B, C, D	2013	2007