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Support of the Use of the Most Recent Published Approved Standard Methods Proposed in the 2010 MUR



NEMC
August 15, 2011



Top 10 Reasons to Use the Latest Version for Compliance Monitoring

10. Andy needs something to talk about
9. Those who developed original method are gone
8. The Associations need the money
7. You can't get the old editions anymore
6. It gives volunteers something to do
5. Forces people to actually read the methods
4. Methods do have errors, and they get corrected
3. 10-20% of the methods are updated within a cycle
2. Methods reflect improvements in technology
1. **There is much more rigorous QC!**

Focusing on the Top 5 “real” Issues

- Forces people to actually read the methods
- Methods do have errors
- 10-20% of the methods are updated within a cycle
- Methods reflect improvements in technology
- There is much more rigorous QC!

Forces People to Actually Read the Methods

- Based on queries, it's clear that some analysts don't pay attention to the details in methods
- In many cases other than QA/QC updates methods themselves are **TECHNICALLY** unchanged over an extended period of time
- Footnotes on the cover page will tell you when there was a technical change or just an editorial one

Methods may have Errors

- Yes, Standard Methods is not infallible
- Even though all methods are balloted amongst a large number of reviewers, there are errors that may be overlooked
 - Typos occur
 - Things that folks discover don't work as advertised
- One purpose of a new version is to correct those errors

10-20% Of The Methods Are Updated Within A Cycle

- A new edition is not generated until there have been enough new methods or changes to justify producing a new version
 - It's not only expensive for the lab,
 - It's expensive for Standard Methods also
 - Volunteer time has become precious.
- While **MOST** of the changes are in adding new non-compliance methods, there are changes in compliance methods also

New Methods May Reflect Improvements in Technology or Specific Changes

- Holding times have been updated when there are data available
 - e.g. Hexavalent chromium
- Newer technologies applied for analytes
 - 6040E – Chemical Ionization method

There is Much More Rigorous QC in the Latest Edition

- Every chemistry (and radchem) part has a new QA/QC section
 - XX020
 - Specifies the types of QC that are required and the frequency
 - Does NOT always provide limits
 - Limits are either in methods or left to labs to calculate
 - Notes that some regulatory programs have specific requirements
- Chemistry methods are updated to specifically reference the 020 sections....

Other Issues That Have Been Raised as Issues With Only Citing the Current Method

- Changing method numbering
 - It used to be a routine “problem” when space was at a premium (eliminate method #, eliminate paper)
 - For more than 10 years (as of 20th edition) we have tried to use the designation of “reserved” when a method is eliminated.
 - But there have been some that still slipped through; all non-compliance methods
- Cross referencing from edition to edition
 - There are tables available that provide cross referencing
 - These have always been provided to EPA

Is It Really Too Expensive to Buy a New Edition Once Every 5-7 years?

- The typical cost of a subscription or hardcopy is on the order of \$200...
- If a lab can't afford to spend that every few years, perhaps there are bigger issues with their protocols to worry about....
- Buying a subscription guarantees all the latest methods
 - Methods aren't all released at once

I Don't Want the Whole Book....

- Yes, you can download individual sections (which includes ALL the methods for a given parameter)
 - the QC sections are provided for free with the section
- But if you need more than 3 or 4 methods, you're better off with the whole book or a subscription (cost wise)

How Do I Know Whether a Method is EPA Approved?

3120 Metals by Plasma Emission Spectroscopy

3120 Metals by Plasma Emission Spectroscopy

Approved by SM Committee: 1999

A - EPA Approved

R - Revised

ADD TO CART You Pay: **\$69.00** (free to Standard Methods Online subscribers)

Description

Emission spectroscopy using inductively coupled plasma was developed in the mid-1960s as a rapid, sensitive, and convenient method for the determination of metals in water and wastewater samples. A table lists elements for which this method applies. Following a general introduction and discussion of applicability and interference, the details of the method are given.

Methods

A R N Product

A. Introduction

A R B. Inductively Coupled Plasma (ICP) Method

Companion Products

A R N Product

	Price	
R 3020 Quality Assurance/Quality Control (2002)	\$0.00	ADD TO CART
A R 3111 Metals by Flame Atomic Absorption Spectrometry	\$69.00	ADD TO CART
A R 3114 Arsenic and Selenium by Hydride Generation/Atomic Absorption Spectrometry (1997)	\$69.00	ADD TO CART

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Browse by indicator:

- **A** - [EPA Approved \(87\)](#)
- **R** - [Revised \(132\)](#)
- **N** - [New Methods \(22\)](#)
- **C** - [Coming Soon \(0\)](#)

What About EPA Approval of Upcoming Versions?

- The 22nd Edition will be available in early 2012.
 - It's basically a snapshot of everything that is currently online, so you can buy a hardcopy or a subscription
- If a method in the new book is unchanged from an approved version the date is the key
 - e.g. Approved by Standard Methods Committee, 2009
- A method is NOT automatically approved by EPA

What About That Nice Cross Reference Table?

- We are currently working on preparing the table and when it is done it will be posted on the Standard Methods website
- We currently have a table available that compares online vs 21st edition, but it will be outdated once the MUR is issued

USEPA Approved Methods 21st Edition/ Standard Methods Online					
SECTION	METHOD	USEPA Approved			Editorial Revisions
		CWA	SDWA	SMC Approval Year	
Color					
2120	B. Visual Comparison Method	X	X	2001	X
	C. Spectrophotometric Method	X		1993 (20th Ed.)	
	E. ADMI Tristimulus Method	X		1993 (20th Ed.)	
Turbidity					
2130	B. Nephelometric Method	X	X	2001	X
Odor					
2150	B. Threshold Odor Test		X	1997	X
Acidity					

Availability Issues with Old Editions

- Standard Methods has never supported the use of older editions, when approved methods are available in newer ones
 - Fundamental issue with availability
 - i.e. there are only about 900 copies of the 21st edition currently still available
 - If an edition is not easily available should we encourage it's use.
- EPA DW and OW both requested more emphasis on QA/QC – hence updated versions

Any Questions?

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