Message

From: Mills, Marc [mills.marc@epa.gov]
Sent: 6/28/2018 3:09:51 PM
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Subject: recent web seminar on the PFAS TOP assay
Attachments: Closing the PFAS Mass Balance-The Total Oxidizable Precursor (TOP) Assay 6-19-18_closingslideskbuechler.pdf

All
For your information, this was a recent web seminar on the PFAS TOP assay from a commercial lab.

Marc

http://www.testamericainc.com/services-we-offer/webinars/presentations/presentation-closing-the-pfas-mass-balance-the-total-oxidizable-precursor-top-assay/

ABOUT THIS WEBINAR:
Current methodologies for the analysis of per and polyfluoroalkyl substances (PFAS) are designed to measure a discrete list of ~20 compounds. There are many additional PFAS compounds that are not determined as discrete compounds by existing analytical methods, including Method 537. Hence, we may be underestimating the PFAS risk potential present in the environment. There is significant pressure from the public, environmental agencies, and others to apply methodologies that more closely measure the full extent of PFAS contamination.

TestAmerica Sacramento implemented the TOP assay as a solution to this complex problem. The TOP assay rapidly converts polyfluorinated PFAA precursors into PFAAs including PFOA, using a hydroxyl radical-based chemical oxidation method. The TOP assay replicates what micro-organisms in the environment would achieve after many years. The TOP assay quantifies the sum of PFAS that could be converted to PFAAs in the environment. The TOP methodology has revealed that for AFFF-impacted sites, the existing analytical LCMSMS methods are only detecting an estimated 30% to 50% of the total PFAA mass present as PFAA precursors.

Topics the presentation will cover include:
A Brief PFAS introduction, including:
• Nomenclature
• Chemical structure
• Formation, transport and risk
• Exposure, Toxicity and Risk
• Analytical methodology and current regulatory guidance

In depth explanation of the Total Oxidizable Precursor (TOP) Assay • Background • What is the TOP assay?
• How does it work?
• The TOP assay chemical reaction
• What do the results mean?
• What are the limitations of the assay?

Future concerns
Capabilities and Questions?

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