

Current Issues in Environmental an Occupational Health & Safety Science fo the Industrial Hygiene Communi

n Environmental and & Safety Science for Hygiene Community

Turning the Calendar

As we all turn the calendar to 2022 there are many who continue to feel the anxiety of the continuing health pandemic while others see it as a positive sign that better days are ahead. Here's hoping then, that when we say, "twenty twenty two" that we don't think "2020 too"!

2022 Planner

While many of us get a chance to reflect upon the year that has past and prepare for the new year, all ISO 17025 and NELAC accredited laboratories spend this time of the year closing out the past year and opening the current year.

Year-End at iATL

Thanks to our Quality Manager Tiffany Lowe and her team for finalizing all the QA data sets, statistics, forms, regulator data, and endless list of individual analyst records - for each department in the lab! The work continues as annual internal audits and management reviews quickly follow.

#GoQA!



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USEPA updates lead/copper rules: what's next

The US Environmental Protection Agency (EPA) announced that the agency is developing new regulations to better protect communities from exposure to lead and copper in drinking water in a press conference December 16, 2021. EPA is committed to using every tool available - statutory authority under the Safe Drinking Water Act, technical assistance, funding, and more - to protect all Americans from lead in drinking water. The agency will collaboratively work with local, state, and federal partners, to make rapid progress on the administration's goal to remove 100% of lead service lines, with a focus on prioritizing communities disproportionately impacted by lead contamination.

Following the agency's review of the Lead and Copper Rule Revisions (LCRR), EPA concluded there are significant opportunities to improve the rule to support the overarching goal of proactively removing lead service lines and more equitably protecting public health.

Beginning December 2021, the Lead and Copper Rule Revisions will go into effect. The agency plans to issue guidance - including best practices, case studies, and templates to help develop lead service line inventories - to assist its partners in implementation of the rule.

EPA will also develop a new proposed rule, the Lead and Copper Rule Improvements, that will strengthen the regulatory framework. EPA intends to propose requirements that, along with other actions, would result in the replacement of all lead service lines as quickly as is feasible. EPA also intends to consider opportunities to strengthen tap sampling requirements and explore options to reduce the complexity and confusion associated with the action level and trigger level, with a focus on reducing health risks in more communities. The goal of these potential lead service line replacement regulatory improvements - coupled with nonregulatory actions - is to more equitably protect public health. The 2022 allocation of the recent Bipartisan Infrastructure Law is the first of five allotments that will provide \$15 billion in dedicated funding for lead service lines replacements. In addition to the dedicated investment in lead service lines, the Law provides an additional \$11.7 billion in general funding through the Drinking Water State Revolving Fund, which can also be utilized for lead removal.



iATL's Pb/Cu in Drinking Water Lab holds USEPA recognition Lab #NJ0554 as well as multiple state and local accreditations including NJDEP, PADEP, NYSDOH, etc. Contact <u>CustomerService@iatl.com</u> for complete information and pricing.



Next Level

Covid19 first days

Perspective

Over the past 35 years, with little exception, the months of January and February are the slowest of the year for analytical services. Knowing this, the opportunities abound for many non-analytical activities in the lab. As mentioned. QA staff close out the old year and begin the new. There are internal meetings, staff training (crosstraining), annual reports to regulators, and research efforts by senior staff that also present and publish at various conferences (ex. AIHce, ACOM, EIA) and journals (ex. Synergist). So, it was not unusual that I was in Washington DC by invitation of the USFDA to present current updates on asbestos and talc analytical method development for ASTM on February 4th 2020. And then upon returning home over the next week or two - life changed.

Regulator Calls

Among the first calls came from Peter Cooke an internationally recognized microscopist and NVLAP assessor, about how required regulator/accrediting body site visits were to be A series of virtual conducted. meetings ensued - organized by various concerned accreditation body site assessors, involved primarily with microscopy audits. The first unofficial meeting in March 2020 included two NVLAP and an AIHA site assessor, and was focused (pun intended) on how potential virtual site assessments might be conducted efficiently and effectively for PCM, PLM, and TEM. Many proposed solutions were offered and evaluated (ask me how).

Virtual "Visits"

The results of these early meetings, and the more formal staff-led meetings that followed by the accreditation bodies, morphed into an evolving series of policies for virtual 'visits' that were employed for most 2020 and 2021 site assessments. This included all 'visits' to iATL in 2021 from NVLAP, NJDEP, PJLA, AIHA, NYSDOH, USDA, and others.

– The Editor



The COVID-19 pandemic impacted laboratories across the world. Some laboratories were labeled non-essential and were forcibly idled for different stretches of time. Other laboratories were labeled essential and faced the challenges of keeping workers safe during this crisis.

iATL received separate calls from state and local regulators (ex. NYC HPD) designating our lab as essential - mostly because of the large amount of contracted public health projects involving our lead and metals laboratory. The CDC's Childhood Lead Poisoning Prevention Program (CLPPP) is dedicated to eliminating childhood lead poisoning as a public health. iATL is an active participant with our various accreditations and analytical services testing for lead (Pb) in paint, dust, air, soil, and drinking water.

So how then to remain open with analytical and support staff that would have to remain in relative contact and still meet the everchanging whims of policies from CDC, OSHA, and others?

iATL Initial Internal Covid19 Steps

After the initial "stay home unless you're directly handling samples in the metals laboratories" - everyone got accustomed to MS team, Zoom, and WebEx meetings.

Like iATL, many industrial and commercial testing laboratories across the globe faced significant challenges in staffing the labs and keeping staff safe. New work arrangements were required to adhere to CDC guidelines and keep the data flowing that was vital to key customers. The iATL staff were able to work as a team and help each other cope with the challenges of working through the crisis. The labs implemented more rigid shift work, new communication tools, and greater workplace flexibility on the fly as they changed to address the challenges. iATL staff felt that resiliency was a key trait that served them well over the first several months. Also, being experienced IH lab scientists, the analytical staff managed the safety protocols and wearing face masks very well.

iATL Laboratory Operations Manager Whitney Champion said, "listening to our analytical and support staff teams and being willing to adapt quickly to the constantly changing environment was most important... a real team effort."

The physical barriers were installed early on by our iATL President Eric Snyder with help from staff and remain in place today. These so impressed 'visiting' site assessors that they were photographed and sent to several other leading commercial laboratories who used the concept in their labs!

Lessons Learned

Flexibility and communications were the keys to iATL's continuing response to this pandemic. Indeed, countless operational and company culture changes have had to be incorporated into our daily routine so that we've grown accustomed to their impact. So too have changes for regulators, customers, and related professionals and partners in our industry had to evolve so that laboratories could continue to function and produce quality public health data.

Impact on iATL Operations

Plans to celebrate iATL's 35th Anniversary have been shelved as we continue to rebound from attrition of 50 lab and support staff pre-covid to the 38 staff today. Some retirements were included, but none of the attrition were layoffs, and never in our three decades have we had to lay off staff. While many have returned to the lab, some in different roles, on different shifts, and some still working remotely - we try every day to adhere to the principles of high level quality analysis and effective customer service. Like the country and our neighbors - slowly getting back to normal.

Happy and HEALTHY New Year!





Respirable Crystalline Silica: what's new

Common building materials like sand, stone, concrete, and mortar contain crystalline silica. It is also used to make products such as glass, pottery, ceramics, and bricks. <u>OSHA</u> expanded their Silica rules a few years ago and updates have been small and incremental dealing mostly with work exposure studies and their interpretation. Helpful guidance documents exist for worker exposure monitoring including <u>granite countertop</u> industries.

New Updates

Be prepared to settled in and read the 124 page OSHA update from CPL 02-02-080 (2020): <u>Inspection</u> <u>Procedures for the Respirable</u> <u>Crystalline Silica Standards</u>. These inspection updates clarify several industry-related concerns about sampling frequency and interpretation of results for worker negative exposure assessments.

Sample Collection Options

These remain unchanged and often environmental engineering and consulting companies who provide these monitoring services find favor with one sample collection option over others. As long as the OSHA and subsequent NIOSH 7500 method requirements for volume, blanks, flow rates, and filter media are in compliance, iATL will accept samples for testing. Note that there is generally no such thing as 'overloaded' samples similar to asbestos airborne samples.

Laboratory Prep Options

The analytical method allows laboratories three options for silica particle preparation that include muffle furnace, radio frequency plasma ashing, or dissolution in tetrahydrofuran. Studies conducted in 2014 showed the advantages and disadvantages of each option. iATL employs the use of plasma ashing as the studies concluded this option offers the maximum percent recovery for silica.

Report Interpretation

Perhaps the question most often received from project managers has to do with understanding the OSHA required report. We have resources that can assist you with interpretation. mailto:CustomerService@iatl.com

Next Level

EYE ON IT 2021 Congressional Infrastructure Bill and OSHA Silica

The passage of this legislation could result in a 5 percent increase in U.S. construction spending next year, and another 5.5. percent increase in 2023. The \$550 billion in new civil works spending, includes funds for roads, bridges, airports, and rail systems. OSHA has indicated an uptick in expected monitoring with increased projects.

iATL Customer Silica Resources Because you asked...

Though recent supply chain challenges have limited some shipments, iATL offers introductory rates and supplies – call us today.



This Month's Q&A

Q: Why is silica considered a hazard when it is so common?

A: Respirable crystalline silica – very small particles at least 100 times smaller than ordinary sand you might find on beaches and playgrounds – is created when cutting, sawing, grinding, drilling, and crushing stone, rock, concrete, brick, block, and mortar. Activities such as abrasive blasting with sand; sawing brick or concrete; sanding or drilling into concrete walls; grinding mortar; manufacturing brick, concrete blocks, stone countertops, or ceramic products; and cutting or crushing stone result in worker exposures to respirable crystalline silica dust. Industrial sand used in certain operations, such as foundry work and hydraulic fracturing. Workers who inhale these very small crystalline silica particles are at increased risk of developing serious silica-related diseases, including:

Silicosis, an incurable lung disease (leading to disability and death), Lung cancer.

Chronic pulmonary disease (COPD); and Kidney disease

MMWR Silicosis in Stone Fabrication Workers



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Professional Development

Meeting OSHA requirements for airborne fibers by NIOSH 7400 requires specific Phase Contrast Microscopy training. iATL is an approved NIOSH 582 Training Provider as listed by AIHA LAP. Courses may have virtual and live laboratory demonstrations for required elements as well as oneon-one instruction from Course Instructor and Senior iATL Analyst Ben Reich and guest CIH instructors. For information and offerings course email info@iatl.com.

2022 iATL Online Workshops

iATL Laboratory Director and noted speaker and presenter, Frank Ehrenfeld, will reprise many recent workshop-style presentations for our clients throughout 2022. Expect registration news in coming weeks for March, May, July, September, and November offerings. Topics may include:

- Asbestos and Talc Issues
- Erionite and other EMPs
- Natural Occurrences of Asbestos (NOA) – Evolving International Solutions
- Analytical Methods for Asbestos & International Advances
- WTC 9/11, 20 Years Later Lessons Learned
- Asbestos in Dust Updates
- Asbestos in Water What's New
- In situ Asbestos Analyzers
- Asbestos Disease Med Updates
- Vermiculite Method News
- Asbestos Work Practice Studies
- Asbestos in New Building Mat'ls
- Asbestos Vitrification Updates
- Artificial Intelligence (AI) and Asbestos Analysis Progress
- eLearning through ASTM Int'l
- Combustion By-Product
- Analysis: Fire, Insurance, and Forensics

NEXT LEVEL

Published by iATL 9000 Commerce Parkway Mt. Laurel, NJ 08054 856 2331-9449 www.iatl.com

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The Latest

- Recent Keynote Presentation Available
 Invited to open the annual Faculty of Asbestos Management
 for Australia and New Zealand (FAMANZ), Laboratory
 Director Frank Ehrenfeld was required to cancel plans to
 travel 'down under' and instead gave the opening and closing
 presentations for this conference virtually. Both 80 minute
 videos are available upon request.
- Visits to USFDA and USEPA January 2022 Representing iATL and in his capacity as the chair for ASTM International's Committee D2207 on Asbestos Sampling and Analysis, Lab Director Ehrenfeld will be meeting with colleagues to discuss advances in asbestos talc methodology from USP and ASTM including laboratory trials at University of Maryland's School of Geology. The USFDA meeting will share these findings while also meeting with ASTM Staff in Washington DC to update issues on USEPA's TSCA Section 6 intended policy changes.

Latest Asbestos Management Publications

Including two papers from iATL, this first publication is a 526 page academic compilation of recent international advances while the second work is by lead Editor Andy Oberta (with Forward written by Director Ehrenfeld), and is considered the essential component of every asbestos professional's library:

- ASTM STP1632: Asbestos and Other Elongate Mineral Particles—New and Continuing Challenges in the 21st Century (2021)
- ASTM Int'l, Asbestos Control Manual: Surveys, Assessment, Abatement, and Maintenance, 3rd Edition (2015)

iATL Customer Service Contacts:

Need assistance with questions on upcoming projects, or information on samples in the laboratory? Get answers from staff during normal business hours – or contact us...

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Toll Free (877) 428-4285 Emergency Contact(s): (609) 923-7300 (609) 929-4211 Ask us about iATL's interactive LIMS Database, **iTRACC** Client Portal - for your devices - for your convenience

Upcoming Events

- AlHce Annual Conference and Exhibition May 23-25, 2022 Nashville TN
- ASTM Intl Johnson/Rook Asbestos Conf. July 25-29, 2022 Burlington VT
- Association of Enviro/Eng Geologists Sept 13-17, 2022 Las Vegas NV
- ASTM Int'l Symposium: DLs for Air Quality Oct 19-21, 2022 New Orleans LA

Next Issue for Next Level

- Expanded Metals Laboratory at iATL
- Fourth TEM Installed at iATL
- Cosmetic Talc Issues and Solutions
- AI & Fiber Counting PCM It's Coming

