

Current Issues in Environmental and Occupational Health & Safety Science for the Industrial Hygiene Community

nental and Science for Community Next Level

Toxic Substance Control Act

Recently several colleagues responding to the USEPA's request for comments to the draft scope document, debated over the original TSCA source documents from the 1970's and the early 1980's. Yikes – has it been that long!

What is TSCA?

The Toxic Substances Control Act (TSCA) is a United States law, from 1976 and administered by the United States Environmental Protection Agency (EPA), that regulates the introduction of new or existing chemicals. Its three main objectives are to assess and regulate commercial new chemicals before they enter the market, to regulate chemicals already existing that posed an "unreasonable risk to health or to the environment", as for example PCBs, lead, mercury, and asbestos, and to regulate these chemicals' distribution and use. TSCA's includes...

Subchapter II, "Asbestos Hazard Emergency Response (AHERA)", authorizing EPA to set standards for asbestos abatement in schools, contractors, training and certification.

Subchapter IV, "Lead Exposure Reduction", enacted in 1992 requires the EPA to identify sources of lead contamination in the environment to regulate amounts of lead allowed in products, including paint and toys, and to establish state programs that monitor and reduce lead exposures.

Risk Evaluation and Risk Management for Asbestos, Part 1: Chrysotile Asbestos under TSCA Section 6

Office of Pollution Prevention and Toxics U.S. Environmental Protection Agency

> Public Webinar February 3, 2021

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USEPA TSCA Sec 6: Recent Updates & Response

Following the 2016 Frank Lautenberg Chemical Safety Act, EPA's June 2016 designation of asbestos as one the first ten chemicals to undergo risk evaluation under TSCA, the previous Administration focused the risk evaluation for asbestos on chrysotile asbestos as this is the only asbestos fiber type that is currently imported, processed, or distributed in the U.S.

However, as a result of the November 2019 decision of the U.S. Court of Appeals for the Ninth Circuit in *Safer Chemicals Healthy Families v. EPA*, EPA now plans to evaluate *legacy* uses and associated disposals, other types of asbestos fibers in addition to chrysotile, and conditions of use of asbestos in talc and talc-containing products in a supplemental effort that is the focus of part 2 of the risk evaluation for asbestos.

For this asbestos part 2 risk evaluation, EPA has adopted the definition of asbestos as defined by TSCA Title II Section 202 as the "asbestiform varieties of six fiber types – chrysotile (serpentine), crocidolite (riebeckite), amosite (cummingtonitegrunerite), anthophyllite, tremolite or actinolite." EPA will also consider Libby Amphibole Asbestos (and its tremolite, winchite and richterite constituents) in part 2 of the risk evaluation.

The draft scope also reflects EPA's policy changes on risk evaluations announced in June. This includes the consideration of exposures from air and water, and potential exposure to fenceline... communities (i.e., communities near industrial facilities).

Response and What's at Stake

Numerous advocacy groups, professional societies, occupational health and safety organizations, environmental associations, and industry stakeholders were asked to comment by March 1, 2022.

At stake are both game-changing items related to demolition and waste exposures as well as what seem like nuances of the inclusion of talc and vermiculite-containing amphiboles that could transform how and why and what is addressed in the built environment and in how these minerals are employed in consumer products.

EPA will publish the final risk evaluation for asbestos, part 2 by December 1, 2024, as required by court order.

More Information: USEPA TSCA Sec 6 Update Links

iATL helped respond through its involvement with ASTM D22 and D2207 as that international standards organization submitted a document indicating how ASTM might help in providing solutions of evaluating, measuring, and managing asbestos.



Restoration Industry:

The restoration industry is like the insurance industry - and usually the two are connected at the hip. Not unlike Mr. Wolf played by Harvey Keitel who comes and cleans up the mess made by the Samuel Jackson and John Travolta characters in Pulp Fiction.

Restoration Industry Association (RIA)

The RIA is the oldest and largest non-profit, professional trade group dedicated to providing leadership and promoting best practices through advocacy and professional qualifications for the restoration industry.

The RIA represents cleaning and restoration professionals with member firms specializing in textiles, environmental issues, and restoration. The RIA provides credibility, education and business improvement events to maximize industry exposure and advance knowledge in the cleaning and restoration industry. With an extensive network of professionals working towards similar goals, RIA has become a trusted resource of knowledge for those involved in cleaning and restoration.

Standards

Like ASTM and the International Standards Organization (ISO), the RIA also has an extensive list of standards that are employed by their members that are used to specifications comply with expected of the insurance industry and building owner environmental health and safety engineering groups.

In 2009, the RIA ad hoc committee identifying asbestos on on surfaces and on post-fire asbestos evaluations, approached iATL through their committee chair Michael McGuiness CIH. After help from long-time senior microscopist Lou Solebello and Laboratory Director Frank Ehrenfeld, RIA published their standard.

Ask your iATL customer service representative about mold and combustion by-product testing and the 'how, why, and what' it means for interested customers.



Lead

Mold

Help!

When building owners or insurance company claims inspectors move to the next steps of clean-up and restoration, they usually team up accredited with local and restoration industry firms that are expert in containing, cleaning, demolishing, and restoring properties that have been impacted by small incidents, mold in the basement, to larger post catastrophic events like fire.

Recognition and Remediation

Restoration industry (RI) firms that are larger - with a national and international corporate presence; ServePro, Belfour, and Paul Davis, frequently work with insurance providers. So too do smaller firms as long as they are covered by their own insurance and meet restoration and insurance industry standards.

Like a HazMat team, these RI groups have specialists who understand the built environment and are capable of recognizing hazards. These professionals use basic principles of industrial hygiene to search building records, community right to know sites, and often will be setting up equipment to collect and measure a wide range of hazards. While flood waters have to be removed or while slurries of unknown chemicals may be floating by, the RI groups don personal protective equipment (PPE) and utilize tactics typical at...

an industrial hygiene catastrophe. assume the worst until the science behind the event is known and baselines established.

Water/Flood Restoration

iATL has firsthand knowledge of what happens when there is water damage. On a Friday afternoon in 2013, a hotplate under one of the hoods in the chemical prep area failed and started a small fire. No one was injured, and outside of the hood and some minor equipment being damaged, disastrous nothing Yet, as designed, the happened. sprinkler units in that room (thankfully only that room) sprang into action and, even with a drain in the floor of that room, soaked through the bottom several inches of drywall, ruined adjacent area carpets. We also clogged HEPA hoods that remained on as they filtered the air and became unusable with soot overload.

The RI vendor used by our insurance provider was a local branch of the Paul Davis company. They were onsite within a few hours after the fire company departed. Crews in PPE immediately began a choreographed dance involving mops, squeegees, fans, anti-microbial/fungal washes, and general clean-up. By Monday we were back in business.

Mold Analysis

In the days and weeks that followed initial baseline mold samples were compared to airborne fungal spore

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Restoration Industry and Laboratory Services from iATL

Restoration Industry Association (RIA) Restoration and Remediation (R&R) ASTM Combustion By-Product Method, (ASTM) Institute of Inspection Cleaning and **Restoration Certification (IICRC)**

> samples collected in wall cavities and in the general laboratory spaces - and analyzed by our own AIHA EMLAP accredited mold laboratory using ASTM D7391.

Fire Restoration

iATL not only routinely receives samples for mold investigations. but we are called upon by RI companies, insurance industry investigators, and building/property groups to analyze post fire projects to determine char, ash, soot content and their possible sources (ex. Soot from an inefficient oil burner boiler, candles in a church sanctuary slowly damaging artwork, or chemical traces from other sources) as well as to establish preexisting conditions before a catastrophic event. iATL uses the standards published by the RI groups, including those we've helped author, as well as ASTM D6602 using optical light and electron microscopy technology.

Alphabet Soup

Many projects involve examination of samples where not only mold and combustion by-product are where present. metals. but asbestos, and other hazards are suspect.

Ask how we can help with your next investigation.



Next Level



PB&J Sandwich SOP

In our 36 year history, we've trained well over a hundred separate laboratory technical and analytical staff. This includes new employees with academic backgrounds in various sciences and degrees from BS, MS, and PhDs. It comes as no surprise that during the first week of laboratory training program (LTP) presentations that there is a "leveling of the playing field" with perhaps the craziest homework assignment of developing an SOP on the making of a peanut butter and jelly sandwich.

The assignment is used as a means to understand methods, operating procedures, and their content in the lab. Afterall, lab staff will make a career out of reading

and employing these instructionalstep-by-step documents. The next morning, we read everyone's versions, and then, in the past, had a lunch of the final PB&J results - not always a pretty sight.

LTP Requirements

The dozens of international, national, and state regulators. quality quidelines, and accreditation providers, lean heavily on training as they should. It is a key component of laboratory competency and credibility. As such, reams of LTP presentations for classroom training combines with hours, days, weeks, and even months of hands-on training in the lab before any analyst receives their coveted Demonstration of Competency (DOC) that signifies completion of an initial training

LTP References:

- NELAC/TNI
- Demonstration of Competency-DOC
- NYSDOH iDOC
- NLLAP LOSR

program set of modules allowing them to enter into the standard routine of prep and analysis under the umbrella of our quality system.

LTP Initial and Ongoing

While too broad to list details of the major and minor training offerings at iATL for our staff, initial LTP always starts with a week of classroom training that includes: Environmental Health & Safety in the Lab, Principles of iATL's specific fields of testing, and the science behind asbestos and other hazards under our scope of accreditations.

Every seasoned analyst and senior scientist then must demonstrate ongoing competency through performance (PTs, QA data, etc.) to continue their craft.

EYE ON IT Training is...

the backbone of any organization that desires quality. At iATL we took a page from the old Boy Scouts of America Merit Badge Training Guidebook and use the EDGE method of training.

Educate, read, research, and understand the science behind the principles of what is being taught. Demonstrate how to do the procedure, task, or data handling. Guide the novice in their hands-on approach towards competence. Enable the novice to safely fail, and learn from mistakes and success.

"Leadership and learning are indispensable to each other." — John F. Kennedy

iATL Customer Resources

Because you asked...

Of course, 99 percent of our LTP is internal, yet we still receive calls to provide training in some areas such as NIOSH 582 Courses that are sanctioned by the AIHA LAP.

Contact <u>CustomerService@iatl.com</u> and ask for a list of courses.

This Month's Q&A

Q: What is the difference between a 'full' NIOSH 7402 and its 'modified' option offered by iATL?

A: This is a common question, and for most it really concerns… "what is NIOSH 7402 all about?" There is not enough space provided here to provide a comprehensive explanation. The subject matter

deserves attention and the respect of those researchers (ex. Paul Baron) that verified and validated the utility of these options for airborne filter and fiber identification and analysis. Key points presented include...

- Sample Collection, Sample Preparation Use in Exposure and/or Risk Assessments
- Counting Rules, Indexing, Inclusiveness and exclusiveness, PCMe
- Precision data and QA
- Relationship with NIOSH 7400 •
- **Optically Visible Fraction calculations**
- Analytical Magnifications and qualitative mineral fiber characterization •
- Minimum Grid Opening Examined (sensitivity targets)
- Analytical Results in density, concentration, and OVF

If you are interested, please request iATL Technical Bulletin 16 on NIOSH 7402 Full v Modified from CustomerService@iatl.com.



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Professional Development

Is it time to increase your understanding and awareness of some nuanced technical issues? 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, November September, and 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

Webinar available here.



Analytical Methods and Technology for Asbestos Testing

NEXT LEVEL

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We'd love to hear from you: CustomerService@iatl.com Mention this Newsletter Issue and receive 5% off your next sample submittal CELEBRATE MARCH MADNESS with iATL. Our competitive bracketology is never riddled with upsets! With great coaching, the iATL team is always an odds on favorite to win! Our strong TEM team just picked up another starter. The newly installed Hitachi H7650 120keV instrument features a new Brucker QUANTAX EDS and AMT digital camera. The unit, next door to our new Cubix3 XRD, joins our other three TEM teammates and is ready to see game action!

Looking for that championship feeling? We'd like to formally celebrate *with* you – by offering an INTRODUCTORY limited time* offer to be a part of our team.

- Send TEM Airborne samples and receive a 35% discount (to additionally celebrate our 35th year).
- Send TEM Bulk/NOB samples and receive a 17% discount (recognizing the average tenure of our TEM staff).
- Send TEM Dust samples and receive a 10% discount (the average QA Reanalysis for all methods).
- Send TEM Water samples and receive a 5% discount (to recognize our five senior TEM staff).

We might not be cutting down any nets or hoisting any trophies - but we can provide that winning feeling for our customers! Go iATL!

INTERNATIONAL ASBESTOS TESTING LABORATORIES

*Offer ends March 31, 2022. Call or email <u>CustomerService@iatl.com</u> for details of this limited time offer.

***In order to receive discounts, you must click the link below and provide your name, email address, and company name. Any samples received during the promotion period and matching these criteria will automatically receive the discounts listed above. iATL reserves the right to modify or cancel this promotion at any time. Subject to quantity limits



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...

customerservice@iatl.com sales@iatl.com info@iatl.com login@iatl.com customerservice@iatl.com (609) 929-4211

Toll Free (877) 428-4285 Emergency Contact(s): (609) 923-7300

Ask us about iATL's interactive LIMS Database, **iTRACC** Client Portal - for your devices - for your convenience

Upcoming Events

- AIHce 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

- Asbestos in Soil Updates
- Equine Silica Exposure Study
- Laboratory Training Programs Part 2
- Latest News and Updates

Link to archived Next Level issues



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