

Stewardship 2015



Product Stewardship Society®

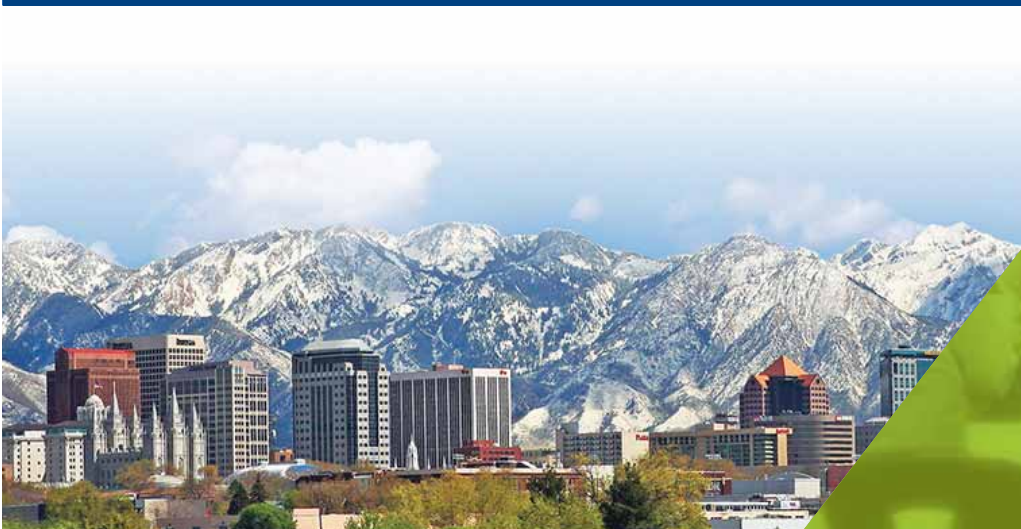
Program inside
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AIHA & ACGIH

AIHce 2015

Final Program



May 30 – June 4, 2015

Salt Lake City, UT | Salt Palace Convention Center

www.AIHce2015.org

The Solution is Clear

Gastec's Single-Stroke Sampling is Fast and Accurate.....

with no chance of errors that can occur with squeeze-type pumps. Sampling with some competitor pumps may require as many as 100 strokes! The Gastec pump requires one stroke or less for most applications.

This means:

- Less Sampling Time
- Less Chance of Errors
- No Miscalculated Strokes

For over 40 years, the Gastec Pump and Tube System has provided fast, simple, and precise gas measurements and remains a clear leader in detector tube technology.

Automatic Stroke Counter*-

tracks up to 10 pump strokes to eliminate the risk of miscounting.

*Available only on model GV-110.

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built tough with corrosion-resistant metal alloy to withstand the harshest environments. LIFETIME WARRANTY.

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GAS DETECTION

Gastec offers a complete line of Detector Tubes for over 600 applications. Visit our website at www.nextteq.com

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Scan for additional information on Gastec pumps

AIHce 2015

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AIHce-AT-A-GLANCE

	SATURDAY - SUNDAY May 30 - May 31	MONDAY June 1	TUESDAY June 2	WEDNESDAY June 3	THURSDAY June 4
7:00 am					
8:00 am		Opening Session	General Session	NEW! Mark of Excellence Breakfast	
9:00 am					
10:00 am		Expo Only	Expo Only	Expo Only	
11:00 am		Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	
NOON	Pre-Conference Professional Development Courses (PDCs)	Expo Only	Expo Only	Expo Only	Concurrent Sessions
1:00 pm		Expo Opening Cocktail Reception			
2:00 pm		Concurrent Sessions	Concurrent Sessions	Concurrent Sessions	
3:00 pm					
4:00 pm					
5:00 pm					
6:00 pm					
7:00 pm			MSA/AIHA Reception		
8:00 pm	NEW! Welcome Party (Sunday, 7-10 pm)	Social Events	Social Events	Social Events	

General Information

Conference Location

Education sessions, the Expo, Speaker Ready Room, and the *CareerAdvantage* Development Fair are at the Salt Palace Convention Center (SPCC). Most volunteer group and ancillary functions will be held at the Salt Lake City Marriott Downtown (HQ), Hilton Salt Lake City, or the Salt Lake City Marriott City Center (CC) (a full listing can be found in the Schedule).

Registration and Information Desk Hours

SPCC, SOUTH FOYER

Friday 5:00 p.m.-7:00 p.m.
Saturday-Monday 7:00 a.m.-5:30 p.m.
Tuesday 7:30 a.m.-5:30 p.m.
Wednesday 7:30 a.m.-4:00 p.m.
Thursday 7:30 a.m.-10:30 a.m.

SPCC, EAST ENTRANCE

Friday 5:00 p.m.-7:00 p.m.
Saturday-Monday 7:00 a.m.-5:30 p.m.

Registrants must wear a name badge to be admitted to AIHce sessions and events. Tours, AIHF activities, and selected social activities require a ticket. Once tickets are purchased, fees are not refundable; however, ticket exchanges may be permitted. After one initial reprint, there is a \$5.00 charge for a lost badge or ticket replacement.

AIHce 2015 Expo

SPCC, EXHIBIT HALLS C/D/E

Monday 9:00 a.m.-5:30 p.m.
Tuesday 9:00 a.m.-3:00 p.m.
Wednesday 9:00 a.m.-1:30 p.m.

Speaker Ready Room

SPCC, ROOM 254A/B

Saturday-Sunday 7:00 a.m.-5:30 p.m.
Monday-Tuesday 7:30 a.m.-5:30 p.m.
Wednesday 7:30 a.m.-6:30 p.m.
Thursday 7:30 a.m.-4:30 p.m.

Check-in is mandatory. Visit the Speaker Ready Room at least 60 minutes prior to the start of the session.

Volunteer Red Carpet Club

SPCC, BALLROOM A

Monday-Wednesday 9:00 a.m.-4:00 p.m.
AIHA loves its volunteers, both national and local. To show its appreciation, AIHA is providing an exclusive members-only lounge for all AIHA volunteers to enjoy.

AIHce On Demand

SPCC, SOUTH FOYER



AIHce On Demand offers the following, available online 24/7: presentation slides synched to audio recordings, downloadable MP3 files and abstract presentations, and up to 250 hours of recorded educational content.

Pay just \$75 through the end of the conference. Don't delay! After AIHce, the price increases to \$195.

Complimentary Wifi

Wireless Internet access is available throughout the SPCC. Network and password are AIHce2015.

Children

Children and young adults 18 and under are not permitted in courses or in the Expo during move-in/move out.

First Aid and Assistance

SPCC, NORTH FOYER (ACROSS FROM HALL B)

A first aid station is staffed daily, Saturday-Thursday.

Lost and Found

SPCC, INFORMATION DESK, SOUTH FOYER

Technical Tours

SPCC, SOUTH FOYER ENTRANCE

Board the bus at the SPCC, South Entrance, at least 15 minutes prior to published tour departure.

Visitors must present a valid photo ID. No open-toe, open-heel shoes or high heels, skirts, or dresses are permitted. For the Kennecott tours, long-sleeved shirts and long trousers are required. Camera phones, cameras, handbags, backpacks, briefcases, and purses are not allowed. No electronics are allowed.

Don't Forget to Complete Your Evaluation!

PDC evaluations will be emailed to those who have attended courses, or you can access them via the AIHce mobile app. To evaluate the technical sessions, open the mobile app, select the session you want to evaluate, and click on the evaluation button. Your feedback is appreciated and will be used to help make AIHce better.

Certification

WWW.AIHCE2015.ORG/EDUCATION/CERTIFICATION

For detailed information about CIH requirements, contact ABIH directly at www.abih.org or visit the ABIH Booth 917 while onsite.

Refresh, Relax, Recharge Lounge

SPCC, EXHIBIT HALLS C/D/E

Need a break from all the excitement of AIHce? Stop by the Refresh, Relax, Recharge Lounge to unwind, charge your mobile devices (and yourself!), catch up on email, or meet a colleague!

AIHce Guest Lounge

MARRIOTT (HQ), GRAND BALLROOM F

Monday - Tuesday 7:00 a.m. - 8:00 a.m.

All accompanying registered spouses and guests have access to the new AIHce Guest Lounge. Open the mornings of Monday, June 1 and Tuesday, June 2, enjoy a continental breakfast and mingle with other guests before attending the morning General Sessions or venturing out to tour the city. A representative from the Salt Lake City Convention and Visitor's Bureau will be available to discuss things to do, recommend restaurants, help you sign up for tours, and answer any questions you may have.

Networking Hub

SPCC, EAST FOYER

Monday - Wednesday ... 7:30 a.m.-5:30 p.m.
Thursday 7:30 a.m.-10:30 a.m.

Need a place to hold a meeting?

Want to continue a discussion from a session you just attended? Reserve a table at the Networking Hub! Tables of 4 and 10 will be available to reserve on a first-come, first-served basis. Simply schedule a meeting using the AIHce App, and in the location box select a Networking Table that is available during your selected meeting time. At the time of your meeting, head over to the hub and look for your reserved table number. Please be sure to keep to your scheduled meeting time out of consideration for those that may have a meeting scheduled after yours.

Special Events



New! AIHce Welcome Party

Sunday, 7:00 p.m. – 10:00 p.m. | Gallivan Plaza, 239 S. Main St.

Kick off the conference with food, drinks, live music, and fun at the first-ever AIHce Welcome Party, Sunday night in downtown Salt Lake City! *In accordance with Utah State Law, valid ID will be required for entrance—REGARDLESS OF AGE.*

CHEMWATCH

Sponsored by Chemwatch Inc.



Expo Hall Networking Reception

Monday, 4:00 p.m. – 5:30 p.m.

Mix, mingle, (sip), and network at the Expo Hall Networking Reception. A perfect opportunity to meet this year's exhibitors, browse the posters, visit with colleagues, and learn about new products and services from AIHA and ACGIH. Don't forget your drink ticket!



First Timers Orientation

Monday, 6:45 a.m. – 7:45 a.m. | SPCC, 255A/B/C

First time attending? Hear tips on how to maximize your overall conference experience and meet other first-time conference-goers.



Sponsored by Dupont



29th Annual AIHF FunRun

Tuesday, 6:30 a.m. – 8:00 a.m. | Memory Grove, 300 N. Canyon Rd.

Lace up your running shoes and run 5k or walk 2k. Fee \$40. All participants must check-in at the FunRun desk. Hours: Sunday, Noon - 5:00 p.m., Monday, 8:00 a.m. - 5:00 p.m.

Jointly sponsored by American Heart Association, Industrial Health & Safety Consultants, and ALS Life Sciences Division Environmental



**SDS and Label
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Industrial Health & Safety Consultants



MSA/AIHA Reception

Tuesday, 6:30 p.m. – 7:30 p.m. | Marriott (HQ), Grand Ballroom

Everyone who is anyone will be at this must-attend annual event.



Jointly sponsored by AIHA and MSA



New! Mark of Excellence Breakfast

Wednesday, 7:00 a.m. – 9:00 a.m. | SPCC, Grand Ballroom C-J

Honor excellence in industrial hygiene at the Mark of Excellence Breakfast on June 3, at 7:00 a.m.–9:00 a.m. This event is a celebration of the extraordinary contributions made by members and the volunteer community of AIHA and ACGIH to the profession and the associations.

Get ready to be inspired to reach new heights! Dr. John Howard, MD, MPH, JD, LL.M., will share his views on the accomplishments made in the science of OEHS work, impart the importance of cultivating new talent, and why it is paramount that each of our members continues to strive for excellence and innovation.

This signature event will also feature our entertaining Master of Ceremony, Kim Merritt, networking, AIHA and ACGIH awards, and a delicious breakfast buffet.

Please note... this event is taking place in lieu of the Tuesday Volunteer Reception and the Wednesday morning General Session.

CareerAdvantage Development Fair

Salt Palace Convention Center • Grand Ballroom B



In today's job market, it is vital to be equipped with the knowledge and skills to position yourself as a strong candidate—whether as an active job seeker or an employed IH professional. Stop by the **CareerAdvantage** Development Fair at AIHce and get the tools you need to begin improving your career today.

Take a look at this year's lineup of informative seminars and events:

Get Noticed - Interview, Resume, and Cover Letter Tips

MONDAY, JUNE 1, 10:30 AM – 11:15 AM

Mary Ellen Brennan, SPHR

In the current competitive environment, it is critical for candidates to utilize best practices in resumes and cover letters to get noticed by prospective employers. This session will highlight key elements to incorporate into your resume and cover letter, and provide useful interview tips and guidance that may increase your chances for that next EHS job opportunity.

Career Portfolio - Taking Control of Your Career

MONDAY, JUNE 1, 1:45 PM – 2:30 PM

Isabel Zuclich, MPH

Come join the Career and Employment Services committee in this session, developing a Career Portfolio, to learn key strategies for taking control of your career and selling yourself when faced with career growth opportunities. Whether you are seeking employment, looking to change careers, or getting that well-deserved promotion, this session will review the in's and out's on how to use a portfolio to manage your career through showcasing your best qualities. The workshop will also include a brainstorming breakout session to kick start your personalized portfolio. You do not want to miss this exciting topic at the 2015 conference!

Mock Interviewing

TUESDAY, JUNE 2, 10:00 AM – NOON

See yourself through an employer's eyes when you meet with an experienced hiring manager during a mock interview. You will receive helpful feedback and learn how to make the most effective presentation of skills, abilities, and professionalism.

Speed Networking

TUESDAY, JUNE 2, 3:00 PM – 4:00 PM

Build lasting connections with colleagues from all levels and industries at this innovative and fun networking "Bingo" event. It's simple! Introduce yourself to a new colleague as you try to match what you learn about them with a bingo spot description. Use this opportunity to learn more about them before you move on to your next connection. There will be prizes for the top networkers! Don't forget to bring plenty of business cards and your "Bingo"-game face for mingling.

Résumé Critiquing

MONDAY, JUNE 1, 9:00 AM – NOON AND 3:00 PM – 4:00 PM

TUESDAY, JUNE 2, 9:00 AM – 10:00 AM AND 1:00 PM – 3:00 PM

WEDNESDAY, JUNE 3, 9:00 AM – NOON

Bring your résumé to the Development Fair to sign up for your résumé critiquing session with an experienced hiring director. You will get helpful feedback directly related to style, length, focus, use of accomplishments and keywords, and more. Limited slots available.

Student and Young Professional Activities

Student and Early Career Professionals Track

The following technical sessions were assembled for students and those new to the profession.

- **RT 209: The Mentoring Circle: A 360 Degree View of Mentoring Programs and Relationships.**
Monday, June 1, 2:00 P.M.–5:00 P.M., SPCC, 355E
- **RT 219: Industrial Hygiene and Safety in Non-traditional Industries.**
Tuesday, June 2, 2:00 P.M.–5:00 P.M., SPCC, 250A/B/C
- **RT 238: Perspectives on Preparation for the CIH Exam v10.0.**
Wednesday, June 3, 1:00 P.M.–5:00 P.M., SPCC, 250D/E/F
- **RT 245: Oh! The Places You'll Go!**
Thursday, June 4, 12:30 P.M.–3:00 P.M., SPCC, 150A/B/C/G

First Timers Orientation Session

(Sponsored by DuPont)



MONDAY, JUNE 1, 6:45 A.M.–7:45 A.M.
SPCC, 255A/B/C

Is this your first time attending AIHce? If so, join us at the First Timers Orientation Session and learn how to make your first AIHce your best experience of the year.

Student Table Topics

MONDAY, JUNE 1, 12:00 P.M.–1:00 P.M.,
EXHIBIT HALLS C/D/E

Topics address issues of specific interest to young industrial hygienists. Seating is first-come, first-serve. The first 25 attend-

ees to appear at this session will receive a discounted voucher for lunch.

- Breaking Down Barriers
- Career Paths
- CIH Exam 101
- Field Work & Travel for the IH
- IH in an EHS World
- IH in the Oil and Gas Industry
- Networking for the IH

Mentoring Program Networking Event

MONDAY, JUNE 1, 6:00 P.M.–8:00 P.M.,
GRACIE'S, 325 SOUTHWEST TEMPLE

(Sponsored by ABIH)



Hosted by the AIHA Mentoring and Professional Development Committee

PLEASE NOTE ... no one under the age of 21 will be permitted. In accordance with Utah State Law, valid ID will be required for entrance—REGARDLESS OF AGE.

This event is open to all participating members of AIHA's Mentoring Program, as well as individuals interested in being a mentor or having a mentor!

To learn more about the AIHA Mentoring Program, please visit the AIHA Mentoring Booth 1702 in the Exhibit hall.

Volunteer Group Meetings

MONDAY, JUNE 1–WEDNESDAY, JUNE 3

Volunteer Group meetings are open to everyone (unless otherwise noted). More than 40 groups meet to discuss a variety of technical and non-technical topics, including many that address student needs. The

list of Volunteer Group meetings can be found on pages 106–108.

Student Local Sections Council Business Meeting

TUESDAY, JUNE 2, 11:30 A.M.–1:00 P.M.,
MARRIOTT (HQ), GRAND BALLROOM B-C

Meet other student local section officers and share best practices. Anyone interested in creating a student local section is invited to attend.

New Volunteer Orientation

WEDNESDAY, JUNE 3, 10:00 A.M.–11:00 A.M.,
HILTON, CANYON C

Volunteers are at the heart of AIHA's mission. AIHA volunteers serve on technical committees, publish articles and papers, comment on legislation and regulations, teach professional development courses, and so much more. This one-hour session will give you an overview of volunteering at AIHA, show you where you can contribute your skills and abilities, and help you see how volunteering can help you in your IH career.

Student Poster Session

WEDNESDAY, JUNE 3, 10:00 A.M.–NOON,
EXHIBIT HALLS C/D/E

Check out the scientific findings of your peers at the 25th Annual Student Poster Session. Students will discuss their research and two posters will be selected "Best of Session."

Awards given by AIHA Volunteer Groups will be presented at 12:30 p.m. next to the student posters.

Connect with the AIHce Community!



AIHce's new community-oriented app is designed to help you search, select, seek, and connect with your peers both during and long after the conference is over.

- **Search** through the full agenda, from PDCs to the final day's events
- **Select** the sessions and events you want to attend, creating a personalized agenda that works for you
- **Seek** out the exhibitors you want to see
- **Connect** with peers, exhibitors, speakers, and others long after the conference is over

Download the app from the iTunes or Google Play stores by searching for "AIHce 2015." You can also use the web version found on your mobile, laptop, or desktop browser.

Sponsored by ION Science Inc.



Awards and Recognition

2015 AIHA® Awards

Edward J. Baier Technical Achievement Award



This award is given to the individual or group of individuals, company, academic institution, organization, or association that has made the most significant contribution to industrial hygiene in recent years through technical expertise, innovations, or scientific advancement. The 2015 recipient is the **NIOSH Nanotechnology Field Research Team**. As part of NIOSH's nanotechnology research agenda, the Nanotechnology Field Research Team (NFRT) was formed in mid-2006 to assess workplace processes, materials, and control technologies associated with nanotechnology and conduct on-site assessments of potential occupational exposure to a variety of nanomaterials. The field team was created to fill a critical knowledge gap regarding worker exposure at a time when very little was known. Over the course of their investigations, the NFRT developed a process that supports a more specific, quantitative approach to exposure assessment. Members of the field team have also been active contributors to the annual AIHce conference via hosting nanotechnology professional development courses, presenting at podium sessions, and hosting and participating in roundtables. Charles L. Geraci, PhD, CIH, Team Manager, will accept the award on behalf of the NFRT.

Distinguished Service Award



This award recognizes distinguished service in the advancement of industrial hygiene, unique technical contributions to the aims and goals of AIHA, proven leadership in the industrial/occupational hygiene profession, influence on public policy or social reform, or public and community service. The 2015 recipient is **Thomas Grumbles, CIH**.

Throughout his extensive career, Thomas Grumbles has actively communicated the importance of industrial hygiene skills in product development, distribution, use, and disposal. In 1978, he received a Master of Science degree from the University of Cincinnati and worked as an industrial hygienist for Gulf Oil shortly after. Grumbles was honored in 1991 by AIHA as the recipient of the Florence and Howard Kusnetz Outstanding Young Hygienist Award for his service in the field of industrial hygiene. In 2000, he was elected as Secretary of the Board of Directors of AIHA and rose to President in 2004. He is also a past president of the International Occupational Hygiene Association (IOHA). Grumbles has served as the Chair of the American Chemistry Council's (ACC), Health, Product and Science Policy Committee and Past Company Chair of the Responsible Care Committee. He is the President-Elect of AIHA's Product Stewardship Society and played a key role in the planning of the Society's first stand-alone conference: Stewardship 2014.

Donald E. Cummings Memorial Award



This award is bestowed upon an individual who has made outstanding contributions to the knowledge and practice of the profession of industrial hygiene and who has been acknowledged for his/her contributions outside of the field of industrial hygiene (e.g., in the EHS field, occupational health, public health, business, etc.). The recipient presents the Cummings Memorial Lecture at AIHce. The 2015 recipient is **André Dufresne, PhD, CIH**. Dufresne began his practice of industrial hygiene in the late 1970s at the Iron Ore Company (Québec, Canada) and the Sidbec Normines (Québec, Canada). In the mid-1980s, he was a scientist at the Quebec Research Institute for Occupational Health and Safety (IRSST, Montréal, Canada). During his time at IRSST he focused his research on dust characterization. He left IRSST to work on his PhD and became, in 1990, professor in occupational hygiene at the School of Occupational Health, later called the Department of Epidemiology, Biostatistics & Occupational Health, McGill University (Montréal, Canada). In 2005, he received the Antoine-Aumont Prize of the Quebec Occupational Health, Safety and Hygiene Association (AQHSST) in recognition of his contributions to the practice of occupational health and safety in Québec. In 2008, he became professor and director at the Department of Environmental and Occupational Health, Université de Montréal (Montréal, Canada), and was active until his retirement in 2014. He has published more than 100 papers and reports in occupational hygiene regarding specific concerns such as asbestos, beryllium, silicon carbide, ultra fine particles and nanoparticles, and has presented more than 120 scientific presentations. He was on the International Advisory Board of the Annals of Occupational Hygiene until 2013, and as of 2014, Dufresne is an honorary professor and member of the IRSST Scientific Council.

Kusnetz Award



This award honors a certified hygienist who has not reached his or her 40th birthday by May 1 of the year in which the award is presented; is currently employed in the private sector; exhibits high ethical standards and technical abilities; has provided for the highest standards of health and safety protection; and shows promise of leadership in the industrial hygiene profession. The 2015 recipient is **Christine A. Hoehn, CIH**. Hoehn's most notable professional accomplishment is her diligence in the development and implementation of a formal industrial hygiene program within the Praxair-United States Industrial Gas Division (USA). Hoehn's technical expertise was recognized by Praxair when she was named the National Industrial Hygiene Expert, which led to the creation of her current role as the Industrial Hygiene Program Manager for the United States Industrial Gas Division (USA) of Praxair. She was selected to attend AIHA Future Leaders Institute and was part of a founding group of volunteers who proposed, created, and successfully launched AIHA's Mentoring Program and Board-appointed Mentoring Committee. She chairs the Student

Congratulations to our 2015 Award recipients for their enduring professional dedication. All will be honored during the AIHce 2015 Mark of Excellence Breakfast on Wednesday, June 3 at 7:00 a.m. in the Grand Ballroom at SPCC.



and Early Career Professionals Committee of the AIHA Board and is the President-elect/Treasurer for the American Industrial Hygiene Foundation.

Alice Hamilton Award



This award is presented to an outstanding woman who has made a definitive, lasting achievement in the field of occupational and environmental hygiene through public and community service, social reform, technological innovation or advancements in the scientific approach to the recognition, evaluation and control of workplace hazards. The 2015 recipient is **Renee Anthony, PhD, CIH**. Dr. Anthony began her career as an industrial hygienist in the pulp and paper industry from 1992 through 2000 and has been in academia since receiving her PhD in 2005. She requires her occupational safety students at the University of Iowa to complete community-based projects that teach them to help local businesses develop safety and health interventions, incorporating outreach consultation and educational video development. Dr. Anthony has contributed to the IH/OH industry by editing the 2nd edition of the Mathematical Models book and teaching professional development courses (PDCs) for the AIHA Exposure Assessment Strategies Committee and AIHA Aerosols Technology Committee. She has been an active volunteer on AIHA's Student and Early Career Professionals Committee, and has served as a reviewer for three NIOSH Educational Research Center/Training Program evaluations.

Social Responsibility Award



This award is presented to an individual, entity, group or organization who works inside organizations to develop and promote practical solutions to social responsibility issues

related to industrial hygiene or environmental health and safety issues. The 2015 recipient is **CPWR - The Center for Construction Research and Training**, a non-profit research organization committed to the prevention of illnesses and injuries among construction workers. Serving more than 20 years as NIOSH's Center for Construction Research, CPWR not only concentrated on understanding the causes of occupational fatalities and injuries in construction, but also researched ways to prevent fatalities and injuries, or mitigate the severity of the outcomes. Every five years, CPWR produces The Construction Chart Book, which focuses on the economics, safety, and health of the construction industry. Beyond research, since 1996, CPWR has provided free medical screening to former Department of Energy building trades workers who put themselves at risk while building, repairing, and maintaining facilities that house nuclear weapons. CPWR also administers a federal grant to provide safety and health and jobs training to disadvantaged ethnic minorities in three U.S. cities near EPA Superfund sites, which, as of 2010, received a new five-year National Institute for Environmental Health Sciences (NIEHS) grant. Most recently, the organization has begun a major five-year program focused on the use of nanotechnology in construction. CPWR is also the

research arm of North America's Building Trades Unions, which represents most construction unions in North America.

Yant Award



This award is presented annually for outstanding contributions in industrial hygiene or allied fields to an individual residing outside the United States. The 2015 recipient is **Noel Tresider, CIH, COH**. In his 35-year career, Tresider's knowledge and experience of historical exposures related to technological changes in the petroleum refining, distribution, and

user industry was instrumental in resolving complex issues in Australia's Health Watch program. He has served as an active committee member across the professional associations in Australia (AIOH) and internationally (International Occupational Hygiene Association, IOHA), as well as the Asian Network of Occupational Hygiene (ANOH). Tresider has been an in-demand visiting academic, presenting lectures to post-graduate industrial hygiene students at Monash University, Ballarat University, Deakin University, and has held the position of Visiting Fellow, School of Health Sciences at the University of Wollongong.

President's Award

This award is presented annually to an individual, task force, special interest group, or local section for outstanding contributions to efforts to achieve the mission of the AIHA during the presidency year. Kept secret until conference, the award winner will be announced and honored at the AIHA President's Reception on Wednesday, June 3, during AIHce 2015.

2015 AIHA Fellow Award Winners

The 2015 AIHA Fellow Award winners will be honored during the AIHce Mark of Excellence Breakfast on Wednesday, June 3 and again at the AIHA Fellows SIG meeting Wednesday afternoon. Members chosen to be Fellows were nominated by colleagues in the profession for their significant contributions to the practice of industrial hygiene or related disciplines. The Fellow classification is limited to no more than 5 percent of the AIHA membership.

2015 ACGIH® Awards

Meritorious Achievement Award



This award is given to members of ACGIH® who have made an outstanding, long-term contribution to the progress of occupational and environmental health. The recipient of this year's award is **D. Jeff Burton, MS, PE**. Over the past 40 years, Mr. Burton has worked on hundreds of projects related to industrial ventilation and indoor air quality. His onsite tailored training courses are legendary. For over 10 years, he served as the speaker of ACGIH®'s popular *Fundamentals in Industrial Ventilation & Practical Applications of Useful Equations* course. Mr. Burton has authored many industry workbooks — *Industrial Hygiene Workbook*; *Industrial Hygiene Workbook for Safety Professionals*; *IAQ and HVAC Workbook*; *Exhaust Ventilation*; *Field Guide*

Awards and Recognition

for *Industrial Hygiene; Case Studies: Sixty Practical Applications of IH Control Principles* — and has designed many self-directed study programs in ventilation, IAQ, and occupational health and safety. He has been a member of ACGIH® since 1991. Mr. Burton is also a member of AIHA and was a long-time member of ASHRAE and ASSE. He served as President (1997–1998), Chair of Local Sections Council, and as a member of the Board of Directors of AIHA. He has been a member (twice) of the ACGIH® Industrial Ventilation Committee and the ANSI Z9.5 Subcommittee for Lab Ventilation. Mr. Burton is currently Chair of the ANSI Z9.2 Subcommittee on Industrial Ventilation, ANSI Z9.8 on HVAC Systems and ANSI Z9.10 on Dilution Ventilation. The award will be announced at the ACGIH® Membership Reception and Annual Meeting on Sunday, at the AIHce Opening General Session on Monday, and presented at the Mark of Excellence Breakfast on Wednesday.

William Steiger Memorial Award



This award honors individuals from the social/political sphere whose efforts have contributed to advancements in occupational safety and health. This year's recipient is **Garrett D. Brown, MPH, CIH**. Mr. Brown retired in January 2014 as the Special Assistant to the Chief of Cal/OSHA after 20 years with the agency. He has conducted more than 650 inspections

in Alameda County, and as part of statewide teams inspecting California's Central Valley agricultural fields and garment sweatshops in Los Angeles and Orange Counties. Mr. Brown has spent most of his career advocating for safe and healthy workplaces in the United States and abroad. He has participated in training in Indonesia and Central American Republics in Guatemala on safety and health issues in the workplace. In 2010, Mr. Brown led a multi-disciplinary team of occupational health professionals to establish the world's first genuinely "no sweat" garment factory in the Dominican Republic. In 2014, Mr. Brown made three trips to Dhaka, Bangladesh to assist with the Accord for Fire and Building Safety, established to protect workers in the country's garment industry. He participated in health and safety training for managers, supervisors, workers, union leaders, and the staff of the Accord itself. Mr. Brown has received academic and professional awards from the University of California at Berkeley, national and local sections of AIHA, and mostly recently from the United Steel Workers Union's Health and Safety Department in March 2015. He has published numerous articles on global workplace health issues, published in some of the industry's preeminent journals. The Steiger Award will be announced at the ACGIH® Membership Reception and Annual Meeting on Sunday, at the AIHce Opening General Session on Monday, and presented at the Mark of Excellence Breakfast on Wednesday.

Herbert E. Stokinger Award

This award is given each year to an individual who has made a significant contribution to the broad field of industrial and environmental toxicology. This year's recipient is **Nigel Walker, PhD, DABT**. Dr. Walker is the Deputy Director for Science for the Division of the National Toxicology Program (DNTP) at the



National Institute of Environmental Health Sciences (NIEHS), one of the National Institutes of Health (NIH). As Deputy Director of DNTP he is involved in the formulation, coordination and implementation of activities necessary to carry out the scientific goals of the National Toxicology Program (NTP), a U.S. Federal government interagency program whose mission

is to evaluate agents of public health concern by developing and applying tools of modern toxicology and molecular biology. Dr. Walker's professional experience covers molecular toxicology, quantitative dose response modeling and risk analysis, with particular emphasis on understanding the toxicity and carcinogenicity of compounds under investigation by the NTP including nanoscale materials, occupational and environmental mixtures, dioxins, persistent organic pollutants, and botanical dietary supplements. Dr. Walker has authored over 120 peer-reviewed articles, including 37 NTP chronic toxicology and carcinogenicity study technical reports. This award will be announced at the AIHce Opening General Session and presented at the Mark of Excellence Breakfast on Wednesday and the Stokinger Lecture on Thursday.

John J. Bloomfield Award



This award is presented to a young industrial hygienist who pursues the problem of occupational health hazards primarily by doing fieldwork, and who demonstrates significant contribution to the profession. This year's recipient is **R. Todd Niemeier, MS, CIH**. Mr. Niemeier received his BA degree (Psychology — 1997) and BS degree (Biology — 2002) from the University of

Cincinnati (UC). He received an MS degree (Environmental and Industrial Hygiene — 2004) from the UC College of Medicine, Department of Environmental Health. His graduate research — evaluation of different sampling methods for mold in indoor environments to better understand the relationship between them — was subsequently published in the *Journal of Occupational and Environmental Hygiene*. Mr. Niemeier was certified (CIH) in 2009 and began his industrial hygiene career working as a consultant. In 2008, he joined the NIOSH Hazard Evaluation and Technical Assistance Branch, where he conducted over 50 health hazard evaluations and published 16 final reports, focusing on biological and zoonotic exposure issues. He has also participated in emergency response-related activities including the 2010 Gulf Oil Spill, 2014 Ebola outbreak, and several activities related to biological terrorism preparedness. Mr. Niemeier has been an IH for NIOSH in the Education and Information Division since 2013. He conducts research to evaluate occupational and environmental hazards and develops appropriate guidelines used to establish NIOSH policies, scientific-decision making strategies, and recommendations. The award will be announced at the ACGIH® Membership Reception and Annual Meeting on Sunday, at the AIHce Opening General Session on Monday, and presented at the Mark of Excellence Breakfast on Wednesday.

AIHA® Volunteer Groups

Lila Albin Award

Since 1997, the AIHA® Indoor Environmental Quality (IEQ) Committee has evaluated peer-reviewed journal articles to bestow this award at the committee's annual meeting. Papers must: (a) be peer reviewed and published during 2014 in the *Journal of Occupational and Environmental Hygiene*; (b) provide practical information and expand knowledge base of IEQ professionals; (c) address a critical IEQ issue; and (d) present the topic clearly and engagingly. In 2012, the award was renamed in honor of the late Lila Albin, PhD, CIH to honor her skills, energy, and enthusiasm as Chair of the AIHA® IEQ Committee, Indiana Local Section/President, and Board Member/on-line editor for *American Institute of Chemists*. This year the award is presented to **Kee-Hean Ong, Roger D. Lewis, Anupma Dixit, Maureen MacDonald, Mingan Yang, and Zhengmin Qian** for their paper on **Inactivation of Dust Mites, Dust Mite Allergen, and Mold from Carpet**.

Rachel Carson Award

AIHA® Environmental Issues Committee bestows this highest honor to **Environmental Health Coalition** in recognition of their environmental advocacy in the spirit of Rachel Carson. This award is bestowed upon an environmental health and safety (EH&S) professional by the AIHA® Environmental Issues Committee. It is presented to those environmental, health and safety persons who have attained outstanding success and distinction in their environmental and industrial health and safety business, profession, or life's work.

Chaffin Award

The AIHA® Ergonomics Committee presents the Chaffin Award to **Sean Gallagher** in recognition of the Best Professional Podium Presentation, **Evolution of Ergonomics: Assessment, Prevention, Improvement and Lessons Learned**, and Best Roundtable Presentation, **Effects of Force and Repetition on Inflammation during Eccentric Muscle Contractions**. The award, established in 2008, honors Dr. Donald B. Chaffin's many contributions to the field of ergonomics and to AIHA®. The award was established to recognize excellence in the field of ergonomics and encourage conference participation.

Rochelle Crew Memorial Award

This award is given by the AIHA® Construction Committee to honor the memory of Rochelle Crew, a former member of the committee and long-time instructor of construction safety PDCs. The award is given to the best construction-related paper, presentation, or PDC presentation at the previous year's AIHce. This year's award goes to **David Carpenter** for **Health Effects of PCBs in the Indoor Environment**.

H. Kenneth Dillon Memorial Award

This award is presented by the AIHA® Biosafety and Environmental Microbiology Committee to honor the memory of Dr. Ken Dillon, a former AIHA® fellow and the principal instructor for several years of the popular PDC, *Prevention, Determination, and Remediation of Biological Contamination in Indoor Environments*. The award is given to the best student poster presented at AIHce on biosafety or microbiology.

Donna Doganiero Award

The AIHA® Safety Committee presents **William Parsons** with the Best Crossover Session Award for the AIHce presentation, **Success Factors in Fall Protection** in recognition of its exceptional quality and relevance to the field of occupational safety. The Safety Committee bestows this award in the name of Ms. Donna Doganiero, a truly outstanding individual, to recognize her achievements and vision in continuing to move the field of industrial safety and hygiene forward.

The Golden Seed Award

The AIHA® Students and Early Career Professionals Committee established this award in 2007. It is presented to an individual who has demonstrated a commitment to promoting industrial hygiene and/or provided guidance and mentoring to students or early career professionals. This award will be presented to **Michael K. Harris, PhD, CIH** at the Mark of Excellence Breakfast.

John A. Leonowich Award for Educational Excellence in Nonionizing Radiation

The John A. Leonowich Award is presented to **Ryan C. Lewis, CIH** of the University of Michigan to honor his educational excellence in nonionizing radiation and her pursuit of NIR initiatives through research or education. This award is bestowed upon a student who is actively pursuing NIR initiatives through research or education. The award recognizes the achievements made by current students in advancing both theirs and the professions understanding of nonionizing radiation.

Margaret Samways Memorial Student Poster Award

This award honors the memory of Ms. Margaret Samways, past Chair and long-time member of the AIHA® Communication and Training Methods Committee. Ms. Samways, with her vast knowledge and practical experience as a trainer, worked tirelessly to provide industrial hygienists with valuable tools to deliver effective training that facilitates learning and ultimately improves worker health.

David L. Swift Memorial Award

This award honors the memory of Dr. David L. Swift, professor at The Johns Hopkins University, for his outstanding contributions to aerosol and industrial hygiene research. Aerosol research papers published during the year in the *Journal of Occupational and Environmental Hygiene* are reviewed by the AIHA® Aerosol Technology Committee. This year's award is presented to **Lorenzo G. Cena, Michael J. Keane, William P. Chisholm, Samuel Stone, Martin Harper, and Bean T. Chen**, for their paper, **A Novel Method for Assessing Respiratory Deposition of Welding Fume Nanoparticles** in the *Journal of Occupational and Environmental Hygiene*, 11:771-780 (2014).

Dr. Erwin Tichauer Award

The AIHA® Ergonomics Committee established the Dr. Erwin Tichauer Award in 1996 for Best Ergonomics Podium and Best Ergonomics Poster by a student. The award honors Dr. Erwin A. Tichauer's many contributions to the field of ergonomics and to AIHA®. The award was established to recognize excellence in ergonomics research by a student and to encourage conference participation.

Awards and Recognition

Upton Sinclair Memorial Lecture

The Upton Sinclair Memorial Lecture on outstanding occupational health, safety, and environmental investigative journalism is hosted by the AIHA® Social Concerns Committee. The 2015 Upton Sinclair Memorial Lecture will be delivered by journalist **Michael Grabell** on **Temp Land: Working in the New Economy** on Tuesday, June 2, at 10:30 a.m., SPCC, 251D/E/F

John M. White Award

The John M. White Award was established by the AIHA® Respiratory Protection Committee to encourage scientific and application-oriented research in respiratory protection. It recognizes work that enhances the knowledge base in an area of understanding or provides new insight that will lead to improved employee protection. This year's award goes to **Michael S. Bergman, Ziqing Zhuang, David Hanson, Brian K. Heimbuch, Michael J. McDonald, Andrew J. Palmiero, Ronald E. Shaffer, Delbert Harnish, Michael Husband, and Joseph D. Wander** for their paper, **Development of an Advanced Respirator Fit-Test Headform**, in the *Journal of Occupational and Environmental Hygiene*, 11:2, 117-125 (2014).

AIHce Best Poster Award

The Best Poster Award is based on two criteria: 1) technical content—organization of the poster material, current importance of the topic, sophistication of scientific or technological aspects of the subject, and the importance of the conclusions for today's workers; and 2) visual communication—clarity, color, space, balance, text, graphics, and effectiveness.

2014 AIHA® Bestseller

This award is presented to the editor of the publication that sold the most copies during the year. The 2014 Bestseller is presented to **Daniel H. Anna, PhD, CIH, CSP**, editor of *The Occupational Environment: Its Evaluation, Control, and Management*, 3rd edition. In 2014, AIHA® sold 518 copies of this publication. This award will be presented at the Mark of Excellence Breakfast.

2014 Critics' Choice Award

This award honors a publication completed in 2014 and evaluated by members of the AIHA® Publications Committee. The committee selected this publication based on its impact on the profession, originality, and the quality of writing. This year's recipient is **Jan Wachter, ScD, CIH, CSP**, the author of **Ethics for the Safety and Health Professional: Approaches and Case Studies**. This award will be presented at the Mark of Excellence Breakfast.

2014 Breakout Bestseller Award

This new award is presented to the editors of a publication completed in 2013 that was newly added to the AIHA® Best-seller list. The recipients this year are **Sharon Murnane, CIH, CSP, Alex Lehocky, CIH, and Patrick Owens, CIH**, the editors of *Odor Thresholds for Chemicals with Established Occupational Health Standards*, 2nd edition. This award will be presented at the Mark of Excellence Breakfast.

AIHA Local Section Awards

Michigan Industrial Hygiene Society Best Paper Award

The Michigan Industrial Hygiene Society Best Paper Award was established by MIHS in 1957 as recognition of outstanding publication in the American Industrial Hygiene Association Journal. In 1989, the MIHS Board of Directors voted to also recognize the authors of the best paper in applied industrial hygiene from the Applied Occupational and Environmental Hygiene Journal. Both journals combined in 2004 to form the current Journal of Occupational and Environmental Hygiene. MIHS continues to present a Best Paper Award each year to the authors of the outstanding article selected from this journal.

This year's winner is, **Exposures and Cross-shift Lung Function Declines in Wildland Firefighters**, by **Denise M. Gaughan, Chris A. Piacitelli, Bean T. Chen, Brandon F. Law, M. Abbas Virji, Nicole T. Edwards, Paul L. Enright, Diane E. Schwegler-Berry, Stephen S. Leonard, Gregory R. Wagner, Lester Kobzik, Stefanos N. Kales, Michael D. Hughes, David C. Christiani, Paul D. Siegel, Jean M. Cox-Ganser, and Mark D. Hoover** of NIOSH Morgantown, Harvard School of Public Health, and University of Arizona.



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Friday/Saturday At-a-Glance

Friday, May 29

5:00 PM – 7:00 PM

Registration, *SPCC, East Registration & South Foyer*

Saturday, May 30

7:00 AM – 7:30 AM

Monitoring Meeting for Saturday PDCs, *SPCC, 254A/B*

7:00 AM – 5:30 PM

Registration, *SPCC, East Registration & South Foyer*

Speaker Ready Room, *SPCC, 254A/B*

8:00 AM – 5:00 PM

- PDC 101 Registry Preparation: Theory and Application of the 4-Gas/PID Sensor Technology, *SPCC, 155D*
- PDC 102 Noise Exposure Assessment: Sampling Strategy and Data Acquisition, *SPCC, 251F*
- PDC 103 Asbestos Health Risk Assessment: Modeling, Characterization, and Communication, *SPCC, 155E*
- PDC 104 Introduction to Combustible Dust Hazards, Prevention and Mitigation Practices, *SPCC, 255D*
- PDC 105 Providing Expert Witness Testimony, *SPCC, 251C*
- PDC 106 Practical Applications of Portable Radiation Instruments, *SPCC, 251A*
- PDC 107 Practical Applications of OH&S Math, *SPCC, 155F*
- PDC 108 The Worst Plant: A Virtual H&S Audit, *SPCC, 255B*

- PDC 109 Ergonomics Toolkit: Applying Basic Tools in Assessments, *SPCC, 355D*
- PDC 110 Chemical Reactivity Hazards: Laboratory Scale Recognition and Control, *SPCC, 251D*
- PDC 111 Global Hazard Communication — the GHS, *SPCC, 255C*
- PDC 112 Principles of Industrial Ventilation, *SPCC, 155A*
- PDC 113 Creating a Safety Culture using the Shingo Model™ for Enterprise Excellence, *SPCC, 251E*
- PDC 114 Strengthening EHS Leadership & Teamwork, *SPCC, 255A*
- PDC 701 Registry Preparation: SDS and Label Authoring, *SPCC, 155B*
- PDC 702 Exposure Assessment Strategies and Statistics, *SPCC, 155C*
- PDC 703 Basic Electrical Safety/Arc Flash with Application of NFPA 70E (2015 Edition), *SPCC, 250A*

Noon – 1:00 PM

PDC Lunches, *SPCC, Exhibit Hall A*

1:00 PM – 5:00 PM

- PDC 301 Designing Effective EHS Organizations Using Management Systems, *SPCC, 355A*
- PDC 302 Job Hazard Analysis: All in the Details, *SPCC, 250C*
- PDC 303 Business Ethics Solutions for the EHS Professional, *SPCC, 251B*
- PDC 304 Video Editing for Presentations and Websites, *SPCC, 250B*

- PDC 305 Preventing Worker Exposure to Ebola and Emerging Infectious Diseases, *SPCC, 355F*

ABIH

7:30 AM – 5:00 PM

ABIH Board of Directors Meeting, (by invitation), *Marriott (HQ), Grand Ballroom, Salon B*

AIHA

8:00 AM – 5:00 PM

Center for Safety and Health Sustainability Board Meeting, (by invitation), *Marriott (HQ), Deer Valley I*
Analytical Accreditation Board (AAB) Meeting, (by invitation), *Marriott (HQ), Deer Valley II/III*

Full session descriptions on the AIHce Mobile App.



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Sunday At-a-Glance

Sunday, May 31

7:00 AM – 7:30 AM

Monitoring Meeting for Sunday PDCs, *SPCC, 254A/B*

7:00 AM – 5:30 PM

Registration, *SPCC, East Registration & South Foyer*

Speaker Ready Room, *254A/B*

8:00 AM – Noon

- PDC 501 Developing a Business Case: Selecting the Best Solutions, Getting the Needed Resources, Part 1: Financial Aspects, *SPCC, 255D*
- PDC 502 Nanotechnology: Old Theories & New Concepts, *SPCC, 150G*
- PDC 503 Smart Devices and the EHS Professional, *SPCC, 355B*
- PDC 504 Practical Approaches to Safety Culture Improvement, *SPCC, 251B*

8:00 AM – 5:00 PM

- PDC 401 Effective Industrial Hygiene Management of Petrochemical Turnarounds, *SPCC, 355C*
- PDC 402 OELs: Tools for Assessing Worker Health Risk, *SPCC, 155E*
- PDC 403 Advanced Topics in Exposure Control Ventilation, *SPCC, 155F*
- PDC 404 Ergonomics Toolkit: Applying Advanced Tools in Assessments, *SPCC, 150A/B/C*
- PDC 405 Monte Carlo Techniques in Exposure Assessment, *SPCC, 250B*
- PDC 407 Engineering Controls to Minimize Fugitive Dusts, *SPCC, 255A*
- PDC 408 Bayesian Statistics: Applications in IH Data Interpretation, *SPCC, 255B*
- PDC 409 Disinfection for Infection Prevention — IH Implications, *SPCC, 150D/E/F*
- PDC 410 Tracing Air in Buildings, *SPCC, 355D*
- PDC 411 Managing Radiation Safety Programs for Industrial Hygienists, *SPCC, 250C*
- PDC 412 Enhancing The Role Of EH&S In Specification, Design, Construction And Management Of Laboratory Hood Ventilation Systems, *SPCC, 251C*
- PDC 413 Noise Control Engineering, *SPCC, 155D*
- PDC 414 Optimizing Hearing Protection, Communication and Hearing Loss Prevention, *SPCC, 250D*
- PDC 415 Methods and Applications for Chemical Detection in Real Time, *SPCC, 251D*

- PDC 416 Occupational Health Program for Silicosis Prevention, *SPCC, 355F*
- PDC 417 Radio Frequency Safety Officer Course, *SPCC, 251A*
- PDC 418 Life Safety Engineering, *SPCC, 255E*
- PDC 419 Environmental Laws & Regulations for Industrial Hygienists, *SPCC, 251F*
- PDC 420 Safe Use of Isocyanates — Industrial Hygiene Approach, *SPCC, 355A*
- PDC 421 Introduction to Managed Fall Protection Programs, *SPCC, 255F*
- PDC 422 Whole Air Sampling Application and Use, *SPCC, 251E*
- PDC 424 Introduction to Human Health Risk Assessment, *SPCC, 155A*
- PDC 425 Managing Indoor Mold & Moisture — An Introduction, *SPCC, 255C*
- PDC 426 Welding: Identifying Exposures and Controls, *SPCC, 355E*
- PDC 701 Registry Preparation: SDS and Label Authoring, *SPCC, 155B*
- PDC 702 Exposure Assessment Strategies and Statistics, *SPCC, 155C*
- PDC 703 Basic Electrical Safety/Arc Flash with Application of NFPA 70E (2015 Edition), *SPCC, 250A*

Noon – 1:00 PM

PDC Lunches, *SPCC, Exhibit Hall A*

Noon – 5:00 PM

Fun Run Packet Pick Up, *SPCC, South Foyer*

1:00 PM – 5:00 PM

- PDC 601 Developing a Business Case: Selecting the Best Solutions, Getting the Needed Resources, Part 2: Non-Financial Aspects, *SPCC, 255D*
- PDC 602 Nanomaterials Have Come to My Workplace! How Do I Assess & Manage Any Potential Risk?, *SPCC, 355B*
- PDC 604 Control Banding: Respirator Selection for Bioaerosols, *SPCC, 150G*

AIHA

8:00 AM – 4:30 PM

AIHA Board of Directors Meeting, (by invitation), *Marriott (CC), Olympus*

1:00 PM – 4:00 PM

AAB Strategic Advisory Group Meeting, (by invitation), *Marriott (HQ), Grand Ballroom C*

5:30 PM – 7:30 PM

Biosafety & Environmental Microbiology Committee Meeting, *Marriott (HQ), Grand Ballroom I*

Exposure Assessment & Strategies Committee Meeting, *Marriott (HQ), Grand Ballroom F*

Healthcare Working Group Meeting, *Marriott (HQ), Grand Ballroom G/H*

6:00 PM – 7:30 PM

Biological Monitoring Committee Meeting, *Marriott (HQ), Grand Ballroom J*

6:00 PM – 8:00 PM

Academic Accreditation Committee Meeting, *Marriott (HQ), Solitude*

7:00 PM – 10:00 PM

Welcome Party, *Gallivan Plaza, 239 S. Main St.*
Sponsored by ChemWatch Inc.

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ACGIH

8:00 AM – 5:00 PM

ACGIH Board of Directors Meeting (by invitation), *Marriott (HQ), Grand Ballroom A*

5:30 PM – 7:00 PM

ACGIH Membership Reception & Annual Meeting of the Membership, *Marriott (HQ), Grand Ballroom D*

ABIH

7:30 AM – 5:00 PM

ABIH Board of Directors Meeting (by invitation), *Marriott (HQ), Grand Ballroom B*

AIHF

5:30 PM – 7:00 PM

AIHF Donor Reception (by invitation), *Marriott (CC), Olympus*

JOEH

7:00 PM – 9:00 PM

JOEH Editorial Review Board Meeting, *Marriott (HQ), Deer Valley*

Ancillary

5:30 PM – 7:30 PM

ISS Forum (by invitation), *Marriott (HQ), Alta/Snowbird*

Monday At-a-Glance

Monday, June 1

6:45 AM – 7:45 AM

AIHce First Timer's Orientation,
SPCC, 255A/B/C, Sponsored by DuPont



7:00 AM – 8:00 AM

AIHce Spouse/Guest Lounge, *Marriott (HQ), Grand Ballroom F*

7:00 AM – 5:30 PM

Registration, *SPCC, East Registration & South Foyer*
Speaker Ready Room, *SPCC, 254A/B*

8:00 AM – 9:30 AM

Opening General Session



On the Edge: The Art of High- Impact Leadership

Alison Levine, Team Captain
of the first American
Women's Everest Expedition,
SPCC, Grand Ballroom C-J

8:00AM – 5:00 PM

Fun Run Packet Pick Up, *SPCC, South Foyer*

9:00AM – 4:00 PM

CareerAdvantage Development Fair 2015,
SPCC, Grand Ballroom B

Volunteer Red Carpet Club, *SPCC, Grand Ballroom A*

9:00 AM – 5:30 PM

Expo

Passport to Prizes, Lounges, Expo Learning Pavilions,
Special Displays, Concessions

SPCC, Exhibit Halls C/D/E

Poster Sessions

SPCC, Exhibit Halls C/D/E

PS 401 Authors Present 10:00 a.m. – Noon

PS 402 Authors Present 2:00 p.m. – 4:00 p.m.

9:30 AM – 2:00 PM

Exhibitor Product Demos and Presentations,
SPCC, Exhibit Halls C/D/E, Expo Learning Pavilions

10:00 AM – Noon

SOLD OUT

- TT01 - Salt Lake Printing Center, *Bus departs SPCC, outside South Foyer entrance at 10AM.*

10:00 AM – 1:00 PM

SOLD OUT

- TT02 – USDOL OSHA, Salt Lake Technical Center ,
Bus departs SPCC, outside South Foyer entrance at 10AM.

10:30 AM – 11:30 AM

- CR301 – EHS Leadership NOW, *SPCC, 355B*
- CR302 – Workplace Safety: Young Employees and Summer Jobs, *SPCC, 355C*
- CR303 – Preventing Ammonium Nitrate Explosions NFPA 400 Hazardous Materials Code, *SPCC, 355E*
- IL01 – Ask the Expert with Alison Levine, *SPCC, 257A/B*

10:30 AM – 12:30 PM

- P0101 – Respiratory Protection I, *SPCC, 355F*
- P0102 – Assessment, Evaluation, and Control of Indoor Environmental Issues, *SPCC, 251A/B/C*
- P0103 – Characterizing and Communicating Past, Present and Future Risk, *SPCC, 155A*
- P0104 – Hazard Prevention and Engineering Controls: Traditional and Modern Approaches, *SPCC, 250 D/E/F*
- RT201 – Novel Approaches in Industrial Hygiene Air Sampling, *SPCC, 155E/F*
- RT202 – The Ebola Virus (EBOV) Outbreak in West Africa: Occupational Health and Safety Concerns, *SPCC, 155B/C*
- SS001 – Occupational Exposure Banding: The Solution for the Glacial Pace of OELs, *SPCC, 255 A/B/C*

10:30 AM – 12:50 PM

- P0105 – Advances in Construction and Confined Space Safety, *SPCC, 255E*

10:30 AM – 1:00 PM

- RT203 – Current Safety and Health Issues in International Mining, *SPCC, 255F*

10:30 AM – 1:30 PM

- P0106 – Exposure Assessment Strategies: Something for Everyone, *SPCC, 250A/B/C*

11:30 AM – 12:30 PM

- CR304 – Stormwater Management: Stemming the Tide, *SPCC, 255D*

Noon – 1:00 PM

- IL02 – Student and Early Career Professionals Table Topics, *SPCC, Exhibit Halls C/D/E*

12:30 PM – 1:30 PM

- SP02 – Jeffrey S. Lee Lecture: Two Decades Spent Helping Workers Protect Their Own Health and Safety in a Pitiless, Globalized Economy, *SPCC, 155D*

12:30 PM – 2:00 PM

SOLD OUT- lunch is included

- IL03 – Unsolved IH Mysteries Workshop, *SPCC, 254C*

1:30 PM – 4:30 PM

SOLD OUT

- TT02B – USDOL OSHA, Salt Lake Technical Center, *Bus departs SPCC, outside South Foyer entrance at 1:30 PM.*

1:30 PM – 5:30 PM

SOLD OUT

- TT03 – Hill Air Force Base, *Bus departs SPCC, outside South Foyer entrance at 1:30 PM.*
- TT04 – IM Flash, *Bus departs SPCC, outside South Foyer entrance at 1:30 PM.*

2:00 PM – 3:00 PM

- CR305 – 10 Ways to Leverage Safety Collaboration with Occupational Health Professionals, *SPCC, 255D*
- CR306 – Managing Hazardous Waste Treatment and Disposal Risks, *SPCC, 355A*

2:00 PM – 3:30 PM

- SP03 – ABIH Forum, *SPCC, 355D*

2:00 PM – 4:00 PM

- SP04 – Industrial Hygiene and Total Worker Health™, *SPCC, 355F*

2:00 PM-4:30 PM

- RT204 – Oil and Gas Wellhead Exposure Pathways, *SPCC, 251A/B/C*
- RT205 – The AIHA® Value Strategy and Return-on-Investment for Ergonomics Initiatives, *SPCC, 355B*
- SS002 – Progress and Key Considerations for Nanotechnology Development and Stewardship, *SPCC, 251D/E/F*

2:00 PM – 4:40 PM

- P0107 – Joint Session on Management, Stewardship, and Incident Preparedness, *SPCC, 255E*

- PO108 – Physical Hazards (Radiation, Vibration, Noise Control), Control Banding & Computer Apps: What a Mix!, *SPCC, 255F*

2:00 PM–5:00 PM

- PO109 – Noise: Exposure Assessment and Control, *SPCC, 155A*

2:00 PM – 5:00 PM

- RT206 – Addressing Unique Industrial Hygiene Challenges in Pharmaceutical Industries, *SPCC, 355C*
- RT207 – Interesting Health Cases: Facts from the Field (Previously known as the Glen Williamson Forum), *SPCC, 155B/C*
- RT208 – Laboratory Exhaust Design and Renovation: What Industrial Hygienists Need to Know, *SPCC, 250D/E/F*
- RT209 – The Mentoring Circle: A 360 Degree View of Mentoring Programs and Relationships, *SPCC, 355E*
- RT210 – Welding Fume Generation, Exposure Monitoring, Assessment, and Control, *SPCC, 250A/B/C*

2:00 PM – 5:30 PM

- RT211 – PCBs in the Built Environment: Exposure Assessment and Mitigation Strategies, *SPCC, 155E/F*

3:30 PM – 4:30 PM

- CR307 – Implementing the New NFPA 70E (2015 Edition) Electrical Safety Requirements, *SPCC, 255D*

4:00 PM – 5:30 PM

Expo Hall Networking Reception

A perfect opportunity to meet this year's exhibitors, browse the posters, visit with colleagues and learn about new products and services from AIHA® and ACGIH®, *SPCC, Exhibit Halls C/D/E*

AIHA

10:30 AM – 12:30 PM

Green Building Working Group Meeting, *Marriott (HQ), Grand Ballroom J*

Incident Preparedness & Response Working Group Meeting, *Marriott (HQ), Grand Ballrooms B/C*

11:00 AM – 1:00 PM

Guideline Foundation Board Meeting, (by invitation), *Marriott (HQ), Alta*

Noon – 1:00 PM

Red Council Meeting, *Hilton, Salon 2*

12:30 PM – 1:30 PM

Fall Conference Planning Committee Meeting, *Marriott (HQ), Solitude*

1:00 PM – 2:00 PM

Blue Council Meeting, *Hilton, Salon 1*

1:00 PM – 6:00 PM

SDS & Label Authoring Registry Exam, *Hilton, Salon 3*

2:00 PM – 2:30 PM

Government Affairs Update, *Marriott (HQ), Park City*

2:00 PM – 4:00 PM

Continuing Education Committee Meeting, *SPCC, 258*

Finance Committee Meeting, *Marriott (HQ), Snowbird/Brighton*

Legal Issues Committee Meeting, *Marriott (HQ), Cottonwood*

Protective Clothing & Equipment Committee Meeting, *Marriott (HQ), Grand Ballroom A*

Sampling & Laboratory Analysis Committee Meeting, *Marriott (HQ), Grand Ballroom H*

3:30 PM – 6:30 PM

International Affairs Committee Meeting, *Marriott (HQ), Grand Ballroom G*

4:30 PM – 6:30 PM

Control Banding Working Group Meeting, *Marriott (HQ), Park City*

Social Concerns Committee Meeting, *Marriott (HQ), Grand Ballroom E*

5:30 PM – 7:30 PM

Confined Spaces Committee Meeting, *Marriott (HQ), Grand Ballroom B/C*

Environmental Issues Committee Meeting, *Marriott (HQ), Solitude*

Mining Working Group Meeting, *Marriott (HQ), Grand Ballroom F*

Occupational & Environmental Epidemiology Meeting, *Marriott (HQ), Grand Ballroom J*

Respiratory Protection Committee Meeting, *Marriott (HQ), Grand Ballroom I*

Risk Assessment Committee Meeting, *Marriott (HQ), Grand Ballroom D*

Safety Committee Meeting, *Marriott (HQ), Grand Ballroom H*

6:00 PM – 8:00 PM

SECP Mentoring Program Networking Reception, *Gracie's, 326 S. West Temple*

6:30 PM – 8:00 PM

International Reception (by invitation), *Hilton, Grand Ballroom A/B/C*

ACGIH

10:30 AM – Noon

FOHS Board of Trustees Meeting, (by invitation), *SPCC, 252A*

Ancillary

10:30 AM – 12:30 PM

International Training/Qualifications in OH Meeting, *SPCC, 355A*

5:30 PM – 7:00PM

Medgate AIHce Reception (by invitation), *Marriott (HQ), Alta*

6:00 PM – 8:00PM

Harvard Alumni Reception, *Hilton, Canyon A*

6:30 PM – 8:00PM

John's Hopkin's Reception, *Hilton, Salon 2*

Session Format Key

CR = EHS Crossover Program

IL = Interactive Learning

PO = Podium Session

PS = Poster Session

RT = Roundtable

SS = Science Symposium

SP = Special Session

TT = Technical Tour

Monday, June 1

Technical Sessions



Opening General Session

8:00 A.M.-9:30 A.M. GRAND BALLROOM

On the Edge: The Art of High-Impact Leadership

Alison Levine, Team Captain of the first American Women's Everest Expedition

Imagine yourself on the highest mountain in the world. You have to deal with the physiological effects of extreme altitude — along with bone-chilling temperatures, battering winds, and a climbing team that is counting on all of its members to make smart decisions. There is simply no room for poor judgment — one mistake or misstep can result in an “unrecoverable error.” In any situation where lives are on the line or the stakes are exceptionally high, there’s no better training ground for leaders than settings where people are pushed beyond their perceived limits. Drawing on her experience as team captain of the first American Women’s Everest Expedition, Alison Levine makes a compelling case that those leadership principles which apply in the world of extreme adventure apply to today’s business and workplace environments.

MONDAY TECHNICAL SESSIONS

CR301

EHS Leadership NOW

10:30 AM – 11:30 AM

355B

Presenter: A. Alewelt, Caterpillar, Rochester, IL.

EHS professionals are efficient at developing technical competencies. They go to technical trainings and read scientific books, but often forget to build their leadership strengths. Outstanding leaders create energizing climates with employees and management, inspire great performance, and impact results on EHS and business. How does one become a great leader and develop leadership skills? The 20/70/10 development model is 20% learning through coaching and feedback / 70% learning through on-the-job experience and experimentation / 10% learning through formal training and learning programs. This session will discuss real life examples on how to use 20/70/10 to increase ability to lead.

CR302

Workplace Safety: Young Employees and Summer Jobs

10:30 AM – 11:30 AM

355C

Presenter: B. Moriarty, Chubb Insurance, Glen Ellyn, IL.

The potential for an injury to a younger worker is significant. According to NIOSH, an estimated 200,000 young workers are injured on the job in the U.S. every year. About 70,000 are injured seriously enough to go to the emergency room. The presentation will cover the typical hazards associated with summer jobs such as construc-

tion, painting and landscaping and what adolescents and parents should expect from the employer in terms of safety and health. The presentation will also highlight what two companies have done to protect their young workers from hazards during the summer season and year round.

CR303

Preventing Ammonium Nitrate Explosions NFPA 400 Hazardous Materials Code

10:30 AM – 11:30 AM

355E

Presenter: N. Pearce, National Fire Protection Association, Quincy, MA.

NFPA 400, Hazardous Materials Code covers the storage, handling and use of hazardous chemicals including ammonium nitrate (AN). This presentation will outline the important issues discussed and the changes made to NFPA 400 by the technical committee on Hazardous Chemicals in the aftermath of the tragic West, TX explosion. The presentation will also highlight NFPA’s response to the CSB and to the agencies involved in the Executive Order 13650 *Improving Chemical Facility Safety and Security*.

ILO1

Ask the Expert with Alison Levine

10:30 AM – 11:30 AM

257AB

Presenter: Alison Levine, Team Captain of the first American Women’s Everest Expedition **Moderator:** F. Grimsley, Tulane University, New Orleans, LA.

This special interactive session follows the Opening Session presentation, “The Art of

High Impact Leadership” and provides an opportunity for Q&A with our keynote speaker, Alison Levine, team captain of the first American Women’s Everest Expedition.

PO101

Respiratory Protection I

10:30 AM – 12:30 PM

355F

Arranger: J. Szalajda, NIOSH. **Moderator:** N. Megonnell, Haycarb USA. **Monitors:** S. Graham, U.S. Army Institute of Public Health; Z. Zhuang, NIOSH.

10:30 AM – 10:50 AM

John White Award

10:50 AM – 11:10 AM

SR-101-01 Using Chemical Challenge Breakthrough Data and Simple Models to Establish and Support Respirator Change Schedules. C. Manning, Assay Technology, Livermore, CA.

11:10 AM – 11:30 AM

SR-101-02 Determination of the Service Life of Air-Purifying Respirators against 2,3-Pentanedione. J. Parker, NIOSH, Pittsburgh, PA.

11:30 AM – 11:50 AM

SR-101-03 Paper-Based Optical Sensor as an End-of-Service-Life Indicator for Hydrogen Cyanide. J. Parker, NIOSH, Pittsburgh, PA; L. Greenawald, NPPTL, CDC/NIOSH, Morgantown, WV.

11:50 AM – 12:10 PM

SR-101-04 Effects of Air Temperature on Efficiency and Service Life of Air Purifying Chemical Respirator Cartridges Tested Against Sulfur Dioxide and Ammonia. M. Parham, Scott Safety, Monroe, NC.

Exhibitor Product Demos and Presentations

9:30 A.M. – 2:00 P.M., EXPO LEARNING PAVILIONS 1 & 2, EXPO HALL

9:30 A.M. – 10:00 A.M.

Quick Response System for Selecting Gloves for Hazardous Chemicals

Apollo Performance Gloves
Expo Learning Pavilion 1

The New safety system developed by Apollo Performance Gloves demonstrates how attendees can use their smartphone to scan the Quick Response code printed on Apollo gloves to instantly access chemical resistance recommendations for the glove in over 100 chemicals. If the glove does not work, the correct alternative recommendation is given, all on your phone, instantly.

9:30 A.M. – 10:00 A.M.

Leveraging Chemical Data in Multi-Agency GHS Compliance

SiteHawk
Expo Learning Pavilion 2

Global companies have a unique set of challenges related to variations in regulations and requirements between multiple agencies' adoption of GHS. Learn how to leverage important chemical data from multi-agency safety data sheets; maximizing compliance with the most stringent requirements including agency classifications for OSHA, WHMIS and EU-CLP.

10:00 A.M. – 10:30 A.M.

How to Use the SmartBadge™ App to Enhance the Air Sampling Process

Assay Technology
Expo Learning Pavilion 1

The SmartBadge™ App makes the badge and you smarter. Use your smart device and the SmartBadge™ App to create projects for air samples, implement the timer feature for accurate start and stop time documentation, access technical information for the air samplers, and submit the lab request form.

10:00 A.M. – 10:30 A.M.

Vapor Shield: Military Grade Anti Fog

Edge Eyewear
Expo Learning Pavilion 2

Edge Eyewear has developed a revolutionary military grade anti-fog coating called Vapor Shield that leaves lenses completely resistant to fog, even in extreme environments. Whether exposed to hot, cold, or humid conditions, Vapor Shield effectively minimizes the surface tension for water and leaves the lens completely clear.

12:30 P.M. – 1:00 P.M.

The Role of Contraception in an Integrated Program of Pigeon Management

Innolytics, LLC
Expo Learning Pavilion 1

There are just two fundamental strategies to abate a flock of pigeons – increase mortality or reduce reproduction. Since they breed so rapidly, increasing mortality only has short term effects – whatever remains quickly repopulates. Contraceptive control ensures that the birds no longer hatch offspring, gradually but predictably reducing flock size through attrition.

12:30 P.M. – 1:00 P.M.

Meeting the GHS Labeling Challenge

Lexmark International, Inc.
Expo Learning Pavilion 2

This presentation will give a brief overview of the challenges of GHS labeling and describe the Lexmark Publishing and Printing Solutions that are available today. We will also describe how Lexmark, as a manufacturer, addressed the GHS Labeling Challenge in their worldwide operations.

1:00 P.M. – 1:30 P.M.

Multiprocessing for Instrumentation (and IOT)

Particles Plus, Inc.
Expo Learning Pavilion 1

As instrumentation gets more complex these are increasingly incorporating multiprocessing architectures. This presentation outlines the benefits and challenges of implementing such an architecture, using a particle counting instrument as an example. The presentation will include a video presentation to demonstrate just such an implementation..

1:30 P.M. – 2:00 P.M.

Data Analytics of gas detection and sensor information for improved safety practice and efficiency

MSA
Expo Learning Pavilion 1

Discussion of existing and emerging platforms for analysis of detector and sensor information for real-time safety and response as well as sensor analytics for safety management and work planning. Will include an overview of integrating management software and wireless platforms for extraction, response and analysis VOC, combustible and toxic sensors.

1:30 P.M. – 2:00 P.M.

MSDSOnline Plan1 First Responder Share Service

MSDSOnline
Expo Learning Pavilion 2

MSDSOnline's Plan1 First Responder Share Service makes it easy for companies with hazardous chemicals to close the loop on chemical safety by providing a secure, efficient way for employers to share site-specific chemical inventory information, such as facility floor plans, chemical container maps, inventory lists, and SDSs, with first responders.

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12:10 PM – 12:30 PM

CS-101-05 Respirator Cleaning Methods: An Overview of Primary Respirator Cleaning Requirements and Methods Currently Used. D. Stein, 3M, St. Paul, MN.

PO102

Assessment, Evaluation, and Control of Indoor Environmental Issues

10:30 AM – 12:30 PM

251ABC

Arranger: E. Sobek, Assured Bio Labs, LLC, Oak Ridge, TN. **Moderator:** G. McCaslin, RGA Environmental, Inc., Seattle, WA. **Monitors:** W. Friedman, Office of Healthy Homes, HUD, Washington, D.C.; W. Ewing, New Mexico VA Health Care System, Albuquerque, NM.

10:30 AM – 10:50 AM

CS-102-01 Federal Post-Disaster Indoor Environmental Pollutants Guidance. W. Friedman, Office of Healthy Homes, HUD, Washington, D.C.

10:50 AM – 11:10 AM

SR-102-02 Assessing the Effectiveness of Air Duct Cleaning on Indoor Environmental Quality at a Large Laboratory Facility. J. Archer, U.S. EPA, Research Triangle Park, NC; A. Imler, Eastern Research Group, Inc., Morrisville, NC.

11:10 AM – 11:30 AM

CS-102-03 Mysterious Eye Illnesses in a Commercial Kitchen. C. Haury, Golder Associates Inc., Jacksonville, FL.

11:30 AM – 11:50 AM

CS-102-04 IEQ Issues in a Newly-Constructed Laboratory Research Building. M. Brinton, Weill Cornell Medical College EHS, New York, NY.

11:50 AM – 12:10 PM

SR-102-05 Characterizing Air Quality in Manned Habitats using a Portable FTIR Spectrometer. O. Monje, Air Revitalization Lab, Kennedy Space Center, FL; A. Caraccio, NASA KSC, Kennedy Space Center, FL.

12:10 PM – 12:30 PM

CS-102-06 Developing Effective Air Contaminant Bake-Outs. S. Evans, MDE Inc., Seattle, WA.

PO103

Characterizing and Communicating Past, Present and Future Risk

10:30 AM – 12:30 PM

155A

Arrangers: M. Wise, Materion Brush Inc., Mayfield Heights, OH; F. Boelter, ENVIRON International Corp., Chicago, IL. **Moderator:** A. Rossner, Institute for a Sustainable

Environment, Clarkson University, Potsdam, NY. **Monitors:** J. Fallon-Carline, GE Energy, Minden, NV; M. Kolanz, Materion Brush Inc., Mayfield Heights, OH.

10:30 AM – 10:50 AM

CS-103-01 Characterizing Risk at an Industrial Site from Leaking Underground Storage Tanks Containing Diesel Fuel. J. Persky, F. Boelter, S. Song, B. Schnorr, ENVIRON International Corp., Chicago, IL.

10:50 AM – 11:10 AM

CS-103-02 A Qualitative Approach for Determining the Likelihood of PCBs in Manufactured Products aboard Maritime Vessels. M. Plisko, J. Spencer, P. Fabian, Environmental Profiles, Inc., Columbia, MD.

11:10 AM – 11:30 AM

CS-103-03 Communicating Exposure and Risk Concepts Regarding Railroad Maintenance and Repair Workers. F. Boelter, J. Persky, D. Podraza, ENVIRON International Corp., Chicago, IL; W. Bullock, CSX Transportation, Jacksonville, FL.

11:30 AM – 11:50 AM

SR-103-04 Russian Anthrophyllite: Chemical Composition and Mesothelioma Potency Estimate. A. Korchevskiy, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO; J. Rasmuson, E. Rasmuson, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO; M. Sanchez, RJLee Group, Inc., Monroeville, PA.

11:50 AM – 12:10 PM

CS-103-05 Modeling Work Effectiveness of Firefighters with Varying Shift Schedules. S. Williams, V. McDonough, L. Racz, RAF Lakenheath, U.S. Air Force, Apo, AE.

12:10 PM – 12:30 PM

CS-103-06 Six Sigma Approach to Improving your Office Ergonomics Process. T. Silva, Atlas Ergonomics, Grand Haven, MI.

PO104

Hazard Prevention and Engineering Controls: Traditional and Modern Approaches

10:30 AM – 12:30 PM

250DEF

Arranger: J. Couch, NIOSH, Cincinnati, OH. **Moderator:** E. Jones, ExxonMobil, Fairfax, VA. **Monitors:** K. Dunn, J. Couch, NIOSH, Cincinnati, OH.

10:30 AM – 10:50 AM

CS-104-01 Key Elements of Temporary Release Shelter Programs: Development and Implementation. V. Aizenberg, ExxonMobil Biomedical Sciences, Baytown, TX.

10:50 AM – 11:10 AM

CS-104-02 Approaches to Dust Control in Mining. G. Joy, NIOSH Office of Mine Safety and Health Research, Pittsburgh, PA.

11:10 AM – 11:30 AM

SR-104-03 Use of Ventilation Fans for Reducing Worker Airborne Dust Exposures at a Steel Foundry in Ha Tay, Vietnam. G. Croteau, University of Washington, Seattle, WA.

11:30 AM – 11:50 AM

SR-104-04 Self-Reported Use of Dust Controls in Stone Countertop Fabrication in High and Low Enforcement States. M. Philips, J. Canary, Occupational & Environmental Health, University of Oklahoma Health Sciences Center, Oklahoma City, OK.

11:50 AM – 12:10 PM

SR-104-05 Efficiency of Intact and Damaged HEPA Filters and their Gaskets under Different Flowrate and Pressure Drop Conditions. F. Akbar-Khanzadeh, UT HSC College of Medicine, Toledo, OH; K. Smigielski, University of Toledo, Toledo, OH.

12:10 PM – 12:30 PM

CS-104-06 Carbon Dioxide Exposures at Meat Batching Operations. M. Wiggins, Liberty Mutual Insurance, Lexington, SC.

RT201

Novel Approaches in Industrial Hygiene Air Sampling

10:30 AM – 12:30 PM

155EF

Arranger: J. Quam, 3M Company, St. Paul, MN. **Moderator:** J. Quam, 3M Company, St. Paul, MN. **Monitors:** T. Pearce, OSHA, Edmond, OK; J. Hill, Alameda, CA.

New methods and techniques for direct reading and lab analyzed sampling are always being developed to help evaluate the array of ever challenging occupational exposures. This roundtable will provide real time and lab analyzed sampling methods industrial hygienists might consider adding to their IH toolbox, as well as, thoughtful approaches to sampling strategy for the evaluation of exposures and efficacy of controls.

- **The Use and Integration of Direct Read/Real-time Instruments with Traditional IH Methods for Time Weighted Average and Task-based Exposure Estimates.** J. Snawder, NIOSH, Cincinnati, OH.
- **Experiences with Isocyanate Dry Sampler.** S. Bushell, 3M Company, Bracknell, United Kingdom.
- **Needle Trap Sampling: Rapid and Flexible Sampling, and Solvent-free Analysis**

Using a Small Sorbent Bed Contained Within a 19-gauge Needle. P. Smith, OSHA, Sandy, UT.

- **Methods for Real-time Airborne Nanoparticle Concentration Validation.** C. Loza, 3M Company, St. Paul, MN.

RT202

The Ebola Virus (EBOV) Outbreak in West Africa: Occupational Health and Safety Concerns

10:30 AM – 12:30 PM

155BC

Arranger: P. Hauck, Icahn School of Medicine, New York, NY. **Moderator:** P. Hauck, Icahn School of Medicine, New York, NY. **Monitors:** D. Hurley, North Carolina Research Campus, Kannapolis, NC; M. Nonnemann, University of Iowa, Iowa City, IA.

Certain properties associated with the Ebola virus, have caused higher illness and death rates in health care workers in comparison to past outbreaks. These presentations will examine the properties of the exposures, possible means of transmission of disease and proper respiratory protection and protective clothing while responding to the outbreak.

- **Ebola Virus Disease Infection in Health-care Workers: Is It Airborne or Not?** J. Koerner, Health and Human Services, Washington, D.C.
- **Lessons Learned in Port Harcourt Nigeria While Conducting Ebola Training for Health Care Workers.** D. Sharpe, Sharpe Solutions International, LLC, Birmingham, AL.
- **Measures for Prevention and Control of EVD Public Health.** V. Jyothikumar, George Washington University, Washington, D.C.
- **NIOSH Response in West Africa during the Ebola Outbreak.** L. Delaney, NIOSH, Atlanta, GA.

SS001

Occupational Exposure Banding: The Solution for the Glacial Pace of OELs

10:30 AM – 12:50 PM

255BC

Arranger: L. McKernan, NIOSH, Cincinnati, OH. **Moderator:** M. Phibbs, Chemscape, Calgary, AB, Canada. **Monitors:** S. Derman, Medishare Environmental Health & Safety Services, Cupertino, CA; D. Zalk, LLNL, Livermore, CA.

Occupational exposure limits (OELs) have been established for airborne workplace chemicals by various authoritative global organizations for over 60 years. Chemi-

cals are being introduced into commerce at a rate which significantly outpaces the development of authoritative OELs. An alternate path along the hierarchy of OELs to allow occupational hygienist to assess the exposure risk of workers is needed. Occupational exposure banding uses available toxicological data to create a range of concentrations or an Occupational Exposure Band (OEB), to control chemical exposures. This session will provide an overview of various approaches including the NIOSH OEB decision process, the approach recently published in the new AIHA® publication, *A Strategy for Assessing and Managing Occupational Exposures*, 4th edition, and new approaches for both small and big businesses.

- **Hierarchy of OELs: Where Have We Been, Where Do We Go?** C. Laszcz-Davis, The Environmental Quality Organization, Lafayette, CA.
- **NIOSH Occupational Exposure Banding Process: Validation is the Difference.** L. McKernan, CDC/NIOSH, Cincinnati, OH.
- **Health Hazard Banding: The Newest Chapter in the Exposure Assessment Manual.** D. Heidel, Bureau Veritas North America, Edison, NJ.
- **Why are OEBs so Important for Big and Small Companies?** S. Ripple, Susan Ripple Consulting, LLC, Midland, MI.
- **Risk@OEL: An Approach to Conduct Tier 3 OEBs.** M. Jaycock, Jaycock Associates LLC, Langhorne, PA.

PO105

Advances in Construction and Confined Space Safety

10:30 AM – 12:50 PM

255E

Arranger: G. Mellor, Omega Environmental Services Inc., South Hackensack, NJ.

10:30 AM – 10:50 AM

CS-105-01 Personal and Area Monitoring for Airborne Concentrations of Methylene Diphenyl Diisocyanate (MDI) and 2-Ethylhexanoic Acid (EHA) During and After Application of Low Pressure Polyurethane Foam Insulation in a Residential Crawlspace. J. Cikalo, Dow Chemical Company, Midland, MI.

10:50 AM – 11:10 AM

CS-105-02 ANSI A10.49: The Control of Chemical Hazards in Construction. M. Gillen, NIOSH (retired), Washington, D.C.; S. Schneider, Laborers' Health & Safety Fund, Washington, DC.

11:10 AM – 11:30 AM

SR-105-03 An Evaluation of Commercially Available Portable Local Exhaust Ventilation for Welding Fumes in

Construction: The Epilogue. J. Meeker, University of Michigan, Ann Arbor, MI; P. Susi, CPWR, Silver Spring, MD.

11:30 AM – 11:50 AM

CS-105-04 Think AND Act Locally: Promoting Use of Engineering Controls in Construction at the Municipal Level. P. Susi, CPWR, Marlton, NJ; M. Goldberg, City University of New York, Emeritus, New York, NY; M. Weinstein, Florida International University, Miami, FL.

11:50 AM – 12:10 PM

CS-105-05 Confined Spaces in Residential Buildings. P. Bergholz, AMEC, Burnaby, BC, Canada.

12:10 PM – 12:30 PM

CS-105-06 Ventilation for Painting in Enclosed Spaces. D. Chute, Atrium Environmental Health and Safety Services, LLC, Reston, VA.

12:30 PM – 12:50 PM

CS-105-07 Characterization of Exposure to Silica and Dust during Demolition and Crushing Operations in Construction, with and without Dust Controls. A. Bello, C. Mugford, S. Woskie, Work Environment, University of Massachusetts – Lowell, Lowell, MA.

RT203

Current Safety and Health Issues in International Mining

10:30 AM – 1:00 PM

255F

Arranger: A. Rule, Johns Hopkins University, Baltimore, MD. **Moderator:** A. Rule, Johns Hopkins University, Baltimore, MD. **Monitors:** S. Zabel, R. Chen, Johns Hopkins University, Baltimore, MD.

The objectives of this roundtable are to 1) present current mining safety and health-related topics in developing countries; 2) discuss strategies for improving safety and health in international settings, and 3) examine logistic barriers to maintaining safety and health of miners as well as the community surrounding the mines. This session aims to provide a platform to formulate new strategies for further research and an opportunity for participants to share experiences on mining, disaster management, occupational health issues, and of the mining impact on the environment.

- **Mining Tragedy in Turkey.** M. Akpinar-Elci, Old Dominion University, College of Health Sciences, Norfolk, VA.
- **OSH Issues in Small Scale and Informal Mines in Mongolia.** B. Danjaad, Oyu Tolgoi LLC, Khanbogd, Mongolia.
- **Critical Risk Management – A Global Implementation.** P. James, Rio Tinto, South Jordan, UT.

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MONDAY TECHNICAL SESSIONS

- **Behavior-Based Intervention in Coal Mining: The Route for Safety.** J. van Hissenhoven, Evolucionar Servicios de Salud S.A.S, Bogota, Colombia.
- **Moderator-led Discussion by Panel, Chair & Audience: Challenges and Solutions to Improve Mining Safety and Health in International Settings.** A. Rule, Johns Hopkins University, Baltimore, MD.

PO106

Exposure Assessment Strategies: Something for Everyone

10:30 AM – 1:30 PM 250ABC

Arranger: C. Simmons, Simmons Environmental OHS, Inc., Chicago, IL. **Moderator:** T. Blodgett, 3M, St. Paul, MN. **Monitors:** J. Newnum, University of Toledo, Fort Mitchell, KY; J. Campbell, Eastman Chemical Company, Kingsport, TN.

10:30 AM – 10:50 AM

SR-106-01 On the Accurate Estimation of the Benchmark Dose. T. Mathew, Mathematics and Statistics, University of Maryland Baltimore County, Baltimore, MD.

10:50 AM – 11:10 AM

CS-106-02 Professional Judgment in Exposure Assessment: How Low Do You Go? T. Morris, Morris Innovative IH & Safety Solutions, Cincinnati, OH.

11:10 AM – 11:30 AM

CS-106-03 Similar Exposure Groups (SEGs) in Hydraulic Fracturing. R. Rottersman, ENVIRON International Corp., Chicago, IL.

11:30 AM – 11:50 AM

CS-106-04 Health Risk Analysis and Characterization of Similar Exposures Groups of Municipal Solid Waste Employees Based on Historic Monitoring Event. A. Rohr Daniel, ENVIRON International Corporation, San Francisco, CA; P. Harper, ENVIRON International Corp., Phoenix, AZ; C. Torres CIH, CSP, ENVIRON International Corporation, Atlanta, GA; R. Wills, Waste Management, Houston, TX.

11:50 AM – 12:10 PM

SR-106-05 Characterization of Exposure to Diesel Particulate Matter in an Underground Metal Mine. D. Stephenson, Boise State University, Boise, ID; E. Zamzow, Boise State University, Boise, ID.

12:10 PM – 12:30 PM

CS-106-06 Personal Breathing Zone Exposure Monitoring and Surface Contamination Study of Lead at an Indoor Firing Range. P. Kondragunta, EHS, International Safety Systems, Vadodara, India.

12:30 PM – 12:50 PM

CS-106-07 Challenges of Exposure Assessment for Hexavalent Chromium Exposure in the Automotive Parts Manufacturing Industry. N. Lee, Tenneco, Lake Forest, IL.

12:50 PM – 1:10 PM

CS-106-08 The Use of an Activity Based Study as a Novel Method for Tracing Mercury Contamination in Schools and Industrial Settings. J. Callahan, J. Kind, Center for Toxicology and Environmental Health, North Little Rock, AR; K. Scribner, Toxicology – Occupational Medicine, Center for Toxicology and Environmental Health, North Little Rock, AR.

1:10 PM – 1:30 PM

CS-106-09 Case Study: Fipronil Exposure from Misapplication of Insecticide during Extermination. B. Fontaine, The Windsor Consulting Group, Inc., South River, NJ.

CR304

Stormwater Management: Stemming the Tide

11:30 AM – 12:30 PM 255D

Presenter: N. Feldscher, Bureau of Engineering, Design & Construction, New York City Department of Environmental Protection, Corona, NY.

When managed poorly, stormwater can cause erosion, flooding, increased turbidity of water bodies, infrastructure damage, combined sewer overflows, and contaminated water bodies. Personnel responsible for the management of existing facilities or the development of new facilities should understand not only the regulatory requirements surrounding stormwater but also best management practices. As LEED, Green Infrastructure, and sustainability become more important, stormwater has become a topic of ever increasing importance. In addition to federal requirements, many states are either considering or have enacted better/best management practices.

IL02

Student and Early Career Professionals Table Topics

Noon – 1:00 PM Expo Hall

Facilitated by members of AIHA's Students and Early Career Professionals Committee, topics address issues of specific interest to young industrial hygienists or to hygienists new to the profession.

Purchase lunch and select a discussion – seating is first-come, first-served. The first

20 students and early career professionals to appear at the Table Topics will receive a discounted voucher for lunch.

- **Breaking Down Barriers.**

Facilitator: J. Moore, Newell Recycling, East Point, GA.

- **Career Paths.**

Facilitator: T. Blank, Pittsburgh, PA.

- **CIH Exam 101.**

Facilitator: N. Greeson, Duke University, Hillsborough, NC.

- **Field Work & Travel for the IH.**

Facilitator: J. Hoover, Fort Wayne, IN.

- **IH in an EHS World.**

Facilitator: D. Campos, Raytheon, Tucson, AZ.

- **IH in the Oil and Gas Industry.**

Facilitator: T. Grigorieff, Findlay, OH; J. Sheffer, ExxonMobil, Houston, TX.

- **Networking for the IH.**

Facilitator: B. Kissell, Cornell University, Ithaca, NY.

SP02

Jeffrey S. Lee Lecture

Two Decades Spent Helping Workers Protect Their Own Health and Safety in a Pitiless, Globalized Economy

12:30 PM – 1:30 PM

155D



Presenter: Garrett D. Brown, MPH, CIH, Retired, Special Assistant to the Chief of Cal/OSHA, California Division of Occupational Safety and Health

Although the world economy has been "global"

for centuries, the 1994 North American Free Trade Agreement marked a formal transition of the U.S. economy to increasing use of and reliance on global supply chains. The "off-shoring" of manufacturing of many consumer goods has meant a transfer of occupational health and safety hazards to countries that lack the political will and resources (financial, technical and human) to protect workers on the ever-expanding factory floors outside the developed world. In 1993, the Maquiladora Health and Safety Support Network (MHSSN) was established to provide workers in global supply chains and their organizations with information, training and technical assistance of key occupational health and safety hazards, controls and concepts. The goal has always been to build the OHS capacity of local organizations so that workers can speak and act on their own behalf to prevent injuries, illnesses and deaths on the job. The ex-

MONDAY, JUNE 1 Technical Sessions

perience of the MHSSN in Mexico, Central America, Indonesia, China and Bangladesh will be used to highlight lessons of this capacity-building effort, and controversies surrounding global supply chain business models and the actual impact of corporate social responsibility programs.

ILO3

Unsolved IH Mysteries Workshop

(Pre-registration fee required – lunch is included)

12:30 PM – 2:00 PM **254C**

Facilitator: F. Boelter, ENVIRON International Corporation, Chicago, IL.

Test your knowledge! Actual IH case studies are worked through in this team challenge. Participants are given all the data – players, circumstances, and timelines – but not the outcomes. At the end of the session, the facilitator explains what actually occurred.

CR305

10 Ways to Leverage Safety Collaboration with Occupational Health Professionals

2:00 PM – 3:00 PM **255D**

Presenter: P. Greaney, WorkCare, Inc., Anaheim, CA.

During this session, EH&S professionals will learn how to enhance communication and collaboration with occupational health professionals. Topics will include: 1. Ways to identify and select a provider. 2. Defining the role of occupational medicine physicians as medical advisers and business consultants. 3. Selecting clinical and operational metrics that can be used to track provider performance and patient outcomes. 4. Tapping into medical expertise to help ensure legal and regulatory compliance. 5. Standardizing best practices and promote evidence-based medicine.

CR306

Managing Hazardous Waste Treatment and Disposal Risks

2:00 PM – 3:00 PM **355A**

Presenter: M. Huray, National Environmental Health and Safety, Kaiser Permanente, Rockville, MD.

This session will provide an overview of hazardous waste management from cradle to grave. Specifically regarding how to identify and characterize hazardous waste for proper management, ensure waste is properly treated for disposal, and meth-

ods to evaluate vendors used to manage hazardous waste for potential risks to your organization.

SPO3

ABIH Forum

2:00 PM – 3:30 PM **355D**

The ABIH Impact Award, Lifetime Achievement Award, and lecture will be presented, followed by a discussion of the implementation of the American Board of Industrial Hygiene's strategic initiatives with the opportunity for attendees to engage Board members and staff in open dialog about the future of the organization and profession.

SPO4

Industrial Hygiene and Total Worker Health™

2:00 PM – 4:00 PM **355F**

Arranger/Moderator: B. Dawson, DuPont Company, Wilmington, DE.

For several years, NIOSH has been promoting Total Worker Health™ (TWH), a strategy which integrates occupational safety and health protection with health promotion to prevent worker injury and illness and to advance health and well-being. Recognizing there's not a "one size fits all" approach to TWH, it's important to understand that wellness programs in the absence of adequate workplace safety and health protection will not achieve the goals of TWH. Successful integration of health protection and health promotion requires an organizational framework with supporting programs, policies and practices to minimize and/or eliminate workplace physical, biological, and psychosocial hazards and risks, promote healthy behaviors, and provide resources for maintaining and optimizing a safe, healthy and productive workforce – both on and off the job. Historically, many of the presentations have focused mostly on the health promotion aspects of TWH. This session is intended to review the role of the industrial hygienist and suggest ideas about how IHS can get involved in TWH at their worksites.

- **Overview of Total Worker Health™ and the Role of the Industrial Hygienist.** D. Montgomery, Oregon Health and Science University, Portland, OR.
- **The Labor Perspective on Total Worker Health™.** S. Schneider, Laborers' Health & Safety Fund of North America, Washington, DC.
- **The Challenges of Delivering an Integrated Workplace Safety and Smoking Cessation Intervention in Small**

Manufacturing Companies. L. Brosseau, University of Illinois at Chicago, Chicago, IL.

- **Striving to Attain a Healthy Workforce.** B. Smisko, National Environmental, Health & Safety Executive Director, Kaiser Permanente, Oakland, CA.
- **Tips to Get Started.** D. Montgomery, Oregon Health and Science University, Portland, OR.

RT204

Oil and Gas Wellhead Exposure Pathways

2:00 PM-4:30 PM **251ABC**

Moderator: T. Hicks, Hicks Health & Safety, Golden, CO. **Monitors:** L. Anderson, Golder Associates, Wexford, PA; K. Carlson, Bureau Veritas of North America, Houston, TX; P. Owens, Shell Oil Company, Martinez, CA.

U.S. domestic oil and gas production remains on pace for energy independence. Various health hazards are present during typical exploration and production activities. This roundtable will explore several exposure pathways at or near the wellhead including those from drilling rigs, well completion activities, and producing locations. Control measures proposed to reduce identified exposures will be discussed along with methods to evaluate effectiveness.

- **Evaluation of Occupational Exposures during Flowback and Production Testing.** B. King, NIOSH, Cincinnati, OH; E. Esswein, NIOSH Denver Field Office, Denver, CO; M. Kiefer, M. Breitenstein, M. Alexander-Scott, NIOSH/CDC, Denver, CO.
- **Oil and Gas NORM/TENORM: Field Applications.** G. Blanchard, NORM Solutions, Arlington, TX.
- **Exposure Assessments During Oil & Gas Pipeline Cleaning Operations.** T. Hicks, Hicks Health & Safety, Golden, CO.
- **Analysis of Particle Shape and Size Distribution of Silica Aerosol Collected by the NIOSH Mini Baghouse Retrofit Assembly for Control of Silica Dust Emissions on Hydraulic Fracturing Sites.** E. Esswein, NIOSH Denver Field Office, Denver, CO.
- **A Retrospective Evaluation of Worker Fatalities associated with Production Tank Activities on Oil and Gas Well Sites.** J. Snawder, NIOSH, Cincinnati, OH.

RT205

The AIHA® Value Strategy and Return-on-Investment for Ergonomics Initiatives

2:00 PM – 4:30 PM

355B

Arranger: S. Gutmann, S. H. Gutmann Consulting, LLC, White Bear Lake, MN. **Moderator:** S. Gibson, Ergonomics Applications, Salem, SC. **Monitors:** M. Macomber, Michigan OSHA, Saginaw, MI; J. Haney, ARLS Consultants, Inc., Mantlius, NY.

The economy may be improving, but budgets are still tight and justifying workplace changes is often challenging. See how the AIHA Value Strategy can be an important tool to help show tangible value to the organization including reductions in workplace risks, lower operating costs and better customer satisfaction.

- **Overview of the AIHA® Value Strategy.** S. Gutmann, S. H. Gutmann Consulting, White Bear Lake, MN.
- **The Evolving Value Strategy for Safe Patient Handling and Mobility.** C. Brigham, 1Source Safety and Health, Inc., Exton, PA.
- **Supply Chain Ergonomics: A Value Strategy.** E. Gallo, Walgreens, Deerfield, IL.
- **Building a Proactive Ergonomics Strategy.** C. White, Dow Chemical Company, Midland, MI.
- **Does Good Ergonomics Pay? Result of Study on Financial Return of Site Programs.** W. Rostykus, Humantech, Corrales, NM.

SS002

Progress and Key Considerations for Nanotechnology Development and Stewardship

2:00 PM – 4:30 PM

251DEF

Arrangers: C. Geraci, L. Hodson, NIOSH, Cincinnati, OH; M. Shepard, University of Albany, Schenectady, NY. **Moderator:** C. Geraci, NIOSH, Cincinnati, OH. **Monitors:** L. Hodson, NIOSH, Cincinnati, OH; J. Dimitri, IBM, Yorktown Heights, NY.

In this session, the practicing industrial hygienist will learn about important research being conducted to help understand and mitigate hazards and risks of engineered nanomaterials, legal and regulatory perspectives, and an overview of the emergence of nanomaterials in a key industrial sector

- **An Update of NIOSH Research in the Areas of Risk Assessment Approaches**

to OELs, Results from PPE Evaluations, Successful Control Technology Strategies. C. Geraci, NIOSH, Cincinnati, OH.

- **An Industrial Hygienist's View of Nanotechnology from R&D and Semiconductor Manufacturing.** M. Shepard, University of Albany, Schenectady, NY.
- **Legal and Regulatory Issues the EHS Practitioner Needs to Know.** L. Bergeson, Bergeson & Campbell P.C., Washington, D.C.
- **EPA Activity on Specific Nanomaterials.** A. Lamba, U.S. EPA, Washington, D.C.
- **The Emergence of Nanomaterials in Construction.** B. Lippy, CPWR, The Center for Construction Research and Training, Silver Spring, MD.
- **Convergence and Advanced Material R&D Laboratories: Lessons Learned from Nanotechnology.** K. Sheffield, Phillips 66, Bartlesville, OK.

PO107

Joint Session on Management, Stewardship, and Incident Preparedness

2:00 PM – 4:40 PM

255E

Arrangers: P. Harper, ENVIRON International Corp., Phoenix, AZ; D. Downs, EHS Management Partners, Shorewood, MN; E. Primeau, USCG Atlantic Strike Team, Fort Dix, NJ; J. Dimos, Oak Park, IL. **Moderator:** P. Harper, ENVIRON International Corp., Phoenix, AZ. **Monitors:** D. Downs, EHS Management Partners, Shorewood, MN; E. Primeau, USCG Atlantic Strike Team, Fort Dix, NJ.

2:00 PM – 2:20 PM

CS-107-01 A Multifaceted Approach to Improving Leading and Lagging IH Metrics within a Large Corporation. J. Mecham, O. Kampa, Phillips 66 Company, Bartlesville, OK.

2:20 PM – 2:40 PM

CS-107-02 Motivational Structure Analysis: Building Culture with Human Factors. S. Pizzani, EHS, Bureau Veritas North America, Edison, NJ.

2:40 PM – 3:00 PM

CS-107-03 Case Study: Using Supply Chain Traceability to Better Manage Costs, Compliance and Risk. K. Kavar, Actio Corporation, Portsmouth, NH.

3:00 PM – 3:20 PM

CS-107-04 Emergency Communications. G. Arrotti, ESPN, Inc., Bristol, CT.

3:20 PM – 3:40 PM

CS-107-05 Building and Executing a Strategy to Provide Environmental Assessment Response Activities Across Multiple Jurisdictions in Support of a

National Biosurveillance Program. K. Martinez, Hassett Willis, Cincinnati, OH.

3:40 PM – 4:00 PM

CS-107-06 Resource Utilization in Chemical Hazard Emergencies. L. McKernan, CDC/NIOSH, Cincinnati, OH, M. Seaton, NIOSH, Cincinnati, OH; A. Maier, Environmental Health, University of Cincinnati, Cincinnati, OH; S. Sachdeva, Mary Kay O'Conner Process Safety Center, College Station, TX; C. Barton, Oak Ridge Institute for Science and Education, Oak Ridge, TN; E. Ngai, Chemically Speaking LLC, Whitehouse Station, NJ; Y. Lin, Mary Kay O'Conner Process Safety Center, College Station, TX; T. Lentz.

4:00 PM – 4:20 PM

SR-107-07 Determination of Pressure Drop across Activated Carbon Fiber Respirator Cartridges. J. Balanay, Environmental Health Sciences Program, East Carolina University, Greenville, NC; C. Lungu, University of Alabama at Birmingham, Birmingham, AL.

4:20 PM – 4:40 PM

CS-107-08 Challenges in Developing a Disaster Worker Mental Health Resiliency Training Program. S. Beard, Worker Education and Training Program, NIEHS, Research Triangle Park, NC; J. Rosen, AJ Rosen & Associates LLC, Schenectady, NY.

PO108

Physical Hazards (Radiation, Vibration, Noise Control), Control Banding & Computer Apps: What a Mix!

2:00 PM – 4:40 PM

255F

Arranger: C. Richards, S.C. Johnson, Racine, WI. **Moderator:** C. Achutan, University of Nebraska Medical Center, Omaha, NE. **Monitors:** J. Richards, Elm Consulting International, Racine, WI; M. Jones, Iowa City VA Health Care System, Iowa City, IA.

2:00 PM – 2:20 PM

CS-108-01 Naturally Occurring Radioactive Material (NORM) in Natural Gas: How to Anticipate and Prevent NORM Waste and Subsequently Exposure. K. Boot, Faculty of Medicine, UBC, Calgary, AB, Canada.

2:20 PM – 2:40 PM

CS-108-02 Dealing with Fears of Radiation from Naturally Occurring Radioactive Materials (NORM). R. Johnson, Radiation Safety Counseling Institute, Rockville, MD.

2:40 PM – 3:00 PM

SR-108-03 Radiofrequency Exposures at Work: What We Know and Don't Know. M. Shum, Occupational Hygiene &

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Safety, AMEC Environment & Infrastructure, Burnaby, BC, Canada.

3:00 PM – 3:20 PM

CS-108-04 Whole-Body Vibration Total Worker Exposure Assessment in the U.S. H. Paschold, IUP – Safety Sciences, Indiana, PA.

3:20 PM – 3:40 PM

CS-108-05 Use of Vibration Dampening Tape for Noise Reduction. D. Westrum, 3M, Hutchinson, MN.

3:40 PM – 4:00 PM

CS-108-06 Monte Carlo Simulation Implementation in Three Control Banding Tools: Assessment of Dermal Risk, The “CB Nanotool” and Heat Stroke Prevention Guide. D. Drolet, Exposure Assessment Strategies Committee, AIHA, Montreal, QC, Canada; J. Sahmel, Cardno ChemRisk, Boulder, CO; D. Zalk, LLNL, Livermore, CA; P. Dessureault, Université du Québec à Trois-Rivières, Trois-Rivières, QC, Canada.

4:00 PM – 4:20 PM

CS-108-07 Using an Online Solution to Evaluate and Reduce Ergonomic Risk in a Manufacturing Setting. T. Hawkinson, The Toro Company, Bloomington, MN.

4:20 PM – 4:40 PM

CS-108-08 Collecting IH Data with a FileMaker App. M. Rollins, Apps for EHS, Brooklyn, CT.

PO109

Noise: Exposure Assessment and Control

2:00 PM-5:00 PM

155A

Arranger: J. Slagley, Safety Sciences, Indiana Univ. of PA, Indiana, PA. **Moderator:** R. Godwin, U.S. Marine Corps. **Monitors:** S. Guffey, West Virginia University; R. Brauch, Casella CEL Inc.

2:00 PM – 2:20 PM

CS-109-01 2015 Safe-in-Sound Excellence in Hearing Loss Prevention Awards™. S. Schneider, Laborers’ Health & Safety Fund, Washington, D.C.

2:20 PM – 2:40 PM

CS-109-02 How Can We Conduct Better Quality Personal Noise Dosimetry Measurements in the Workplace? B. Selwyn, Sensidyne LP, Merrimack, NH.

2:40 PM – 3:00 PM

SR-109-03 Daily Noise Exposure of Patrol Officers. D. Vosburgh, L. Gilbertson, Occupational & Environmental Safety & Health, UW-Whitewater, Whitewater, WI.

3:00 PM – 3:20 PM

SR-109-04 Effects of Data Sparsity and Spatiotemporal Variability on Hazard Maps of Workplace Noise. K. Koehler, Environmental Health Sciences, Johns

Hopkins University, Baltimore, MD; J. Volckens, K. Lake, H. Wang, Colorado State University, Fort Collins, CO; J. Zhu, University of Wisconsin, Madison, WI.

3:20 PM – 3:40 PM

CS-109-05 Ball Mill Noise: An Innovative Approach for Control. G. Graham, Industrial Hygiene, Freeport McMoRan Inc., Morenci, AZ.

3:40 PM – 4:00 PM

CS-109-06 Reducing Noise Levels in Hydroelectric Power Plants. J. Komrower, Noise Control Engineering LLC, Billerica, MA; T. Gallagher, Bureau of Reclamation, Denver, CO.

4:00 PM – 4:20 PM

CS-109-07 The Critical First Step in a Noise Control Program. D. Driscoll, Associates in Acoustics, Inc., Evergreen, CO.

4:20 PM – 4:40 PM

SR-109-08 Evaluation of Active Noise Cancelling Headsets during Jackleg Drilling in an Underground Mine Setting. W. DuBose, V. Lee, R. Reed, E. Lutz, Community Environment and Policy, University of Arizona, Tucson, AZ.

4:40 PM – 5:00 PM

SR-109-09 Photopolymerization 3-D Printing: Preliminary Assessment of Material Hazards. T. Ryan, D. Hubbard, Ohio University, Athens, OH.

RT206

Addressing Unique Industrial Hygiene Challenges in Pharmaceutical Industries

2:00 PM – 5:00 PM

355C

Arranger: M. Mehta, International Safety Systems, Inc, Washingtonville, NY. **Moderator:** M. Mehta, International Safety Systems, Inc, Washingtonville, NY. **Monitors:** G. Desai, International Safety Systems, Inc., Houston, TX; T. Mehta, Sandoz – A Novartis Company, Austria.

Active Pharmaceutical Ingredients (API) manufacturing and formulations in pharmaceutical industries, manufacturing and formulations of Active Pharmaceutical Ingredients (API) pose unique industrial hygiene challenges. Conventional qualitative exposure assessment tools are often not applicable to APIs. Sampling and analytical methods are not established for many APIs. Determining surface contamination of API is critical in determining potential API ingestion risk. Wipe sampling has been a useful tool in identifying surface contamination and effectiveness of the decontamination methods. For most of the high potent compounds, reducing exposures below OELs, even with best of

particulate containment, is not feasible and hence respiratory protection is primarily used for the exposure reduction. Variability in Assign Protection Factors for respirators is significant among manufacturers and in different countries. As a result, an API exposure with respirators is often under or over-estimated. Industrial hygienists with pharmaceutical industries experience will discuss efforts made to address these challenges.

- **Addressing Multiple API/Solvent Exposures during Health Risk Assessment.** K. Patel, Teva Pharmaceutical, Pomona, NY.
- **Wall Deposition in API Sampling with IOMs: Assessing and Addressing the Issue.** M. Meiners, Bureau Veritas North America, Lake Zurich, IL.
- **Industrial Hygiene Measurements: Task Based and Full Shift Monitoring.** B. Altemose, SafeBridge Consultants Inc., Mountain View, CA.
- **An Interdisciplinary Containment Initiative.** N. McClellan, AbbVie, North Chicago, IL.
- **Lessons Learned From API Wipe Sampling.** A. Sharma, International Safety Systems, Inc., Faridabad, India.
- **Uncertainty in Assigned Protection Factor for PAPR.** R. Hirsh, Nektar Therapeutics, San Francisco, CA.

RT207

Interesting Health Cases: Facts from the Field (Previously known as the Glen Williamson Forum)

2:00 PM – 5:00 PM

155BC

Arranger: A. Towey, OSHA Training Institute, Arlington Heights, IL. **Moderator:** M. O'Donnell, USDOL, Washington, D.C. **Monitors:** A. Towey, OSHA Training Institute, Arlington Heights, IL; T. Harrison, USDOL, Washington, D.C.

OSHA safety and health professionals have the opportunity to investigate a vast array of physical, chemical, and biological exposures. This session is designed to highlight the findings of some of OSHA's most interesting enforcement cases will be reviewed six OSHA investigations that are outside the norm, or of particular interest. Following the example of the Glen Williamson Forum.

- **Microbiologist Death from *N. meningitidis*.** A. Rose, USDOL OSHA, Oakland, CA.
- **Healthcare Sterilization Causes High Glutaraldehyde Exposure.** M. Gonzales, USDOL OSHA, Jacksonville, FL.

- **Excessive Styrene Exposure in Fiber-glass Fabrication.** A. Kupper, USDOL OSHA, Madison, WI.
- **Beverage Manufacturer with Excessive Exposure to Hydrogen Peroxide.** C. Meagher, USDOL/OSHA, Wichita, KS.
- **Endotoxin Exposure at an Indoor Water Park.** M. Wacker, USDOL OSHA, Madison, WI.
- **Cadmium Over-Exposure Working in the Aviation Industry.** J. Tant, USDOL OSHA, Atlanta, GA.

RT208

Laboratory Exhaust Design and Renovation: What Industrial Hygienists Need to Know

2:00 PM – 5:00 PM 250DEF

Arranger: M. Fahim, North Carolina State University, Raleigh, NC. **Moderator:** M. Fahim, North Carolina State University, Raleigh, NC. **Monitors:** M. Miller, FBI Laboratory, Quantico, VA; L. Wong, University of California Office of the President, Oakland, CA.

Laboratory hoods and local exhaust ventilation systems are the primary means of protecting people working with hazardous materials in laboratories. The EH&S professionals can play a significant role during design, selection, installation, and commissioning of such systems. This roundtable will review different ventilation design options and selection guides, commissioning tests, required long term maintenance and calibration, building code requirements and interpretation, energy management, and management of change.

- **Invest in the Future by Being an Effective Lab Design Team Member Today.** P. Greenley, MIT, Cambridge, MA.
- **Fume Hood Auto Sash Devices: Design Considerations and Lessons Learned.** L. Davis, J. Fleming, Lawrence Berkeley National Laboratory, Berkeley, CA.
- **Ventilation Codes and Standards Give New Weight to EHS Judgment.** J. Coogan, Siemens Building Technology, Buffalo Grove, IL; K. Kretschman, North Carolina State University, Raleigh, NC.
- **Commissioning of High-Performance Fume Hoods: Ensuring Worker Safety and Cost Savings.** J. Peters, W. Litzke, C. Channing, Brookhaven National Laboratory, Yaphank, NY.

- **What Could Possibly Go Wrong with my Exhaust/Ventilation System?** W. Mele, D. Hall, Chemistry and Industrial Hygiene, Inc., Wheat Ridge, CO.
- **Laboratory Energy Conservation and Sustainability.** M. Austin, University of Minnesota, Minneapolis, MN.

RT209

The Mentoring Circle: A 360 Degree View of Mentoring Programs and Relationships

2:00 PM – 5:00 PM 355E

Arranger: M. Rupert, SevenGen, Cincinnati, OH. **Moderator:** N. Greeson, Duke University, Hillsborough, NC. **Monitors:** J. Hoover, Steel Dynamics, Fort Wayne, IN; S. Rodriguez, U.S. Army Public Health Command, Ft. Sam Houston, TX.

This session, sponsored by the new Mentoring and Professional Development Committee, takes a 360 degree view of mentoring and its importance in the growth and development of industrial hygiene professionals. From how to be a better mentee or mentor, to creating your own program and tracking its success, this session will provide an energetic view of the act of mentoring and mentoring programs in the industrial hygiene community.

- **Grow, Learn and Teach by Being a Mentee.** B. Kissel, Alcoa – Mt. Holly, Goose Creek, SC.
- **Mentoring: The Student Internship and Beyond.** W. Bullock, CSX, Jacksonville, FL.
- **On the Job: A Look at Mentors and AIHA® Career and Employment Services as Career Guides.** R. Prodans, Abbott Laboratories, Abbott Park, IL.
- **Turning on the Light: Tips for Developing or Getting Involved in Mentoring Programs to Sustain the Future of Industrial Hygiene.** M. Rupert, SevenGen, Cincinnati, OH.
- **Defining Metrics: Lessons in Restraint and Patience.** A. Lori, 3M Drug Delivery Systems Divisions, St. Paul, MN.
- **A Tale of Two Mentees: The Successes and Challenges of Being a Mentor.** M. Finnamore, Baxter Healthcare Corporation, Round Lake, IL.
- **Mentor You Mentee Me.** M. Griffin, New Orleans, LA; H. Partlowe, Henkel, Scottsdale, AZ.

RT210

Welding Fume Generation, Exposure Monitoring, Assessment, and Control

2:00 PM – 5:00 PM 250ABC

Arranger: A. Siert, Xcel Energy, Denver, CO. **Moderator:** J. Spear, J.E. Spear Consulting, LP, Magnolia, TX. **Monitors:** F. Anderson, Zachry Industrial, Inc., San Antonio, TX; M. Soltis, Tetratex, Pittsburgh, PA.

Welding fume exposures continue to be of interest to industrial hygienists. Fume generation studies are being conducted to characterize fume constituents by the various exposure variables, including the welding processes and other allied thermal processes. The recent change in the TLV® for manganese has created exposure monitoring challenges since, although welding fumes are respirable, grinding dust and other larger particles commonly associated with welding are generally not within the respirable size distribution. Welding exposure monitoring has long been specified to be conducted inside the hood; however, conventional respirable size sampling devices preclude this approach. Recent efforts have been made in manufacturing of welding electrodes and wire to reduce the generation of Mn and Cr6, and controlled comparisons of exposures, production rate, quality and cost are being conducted in order to optimally select processes.

- **A New Approach to Reducing Manganese Exposure during Welding.** A. Fiore, Hobart Brothers Welding, Troy, OH.
- **The Viability of Particle-Size Selective Exposure Assessments for Welding and Allied Processes.** J. Spear, J.E. Spear Consulting, LP, Magnolia, TX.
- **NIOSH Ongoing Welding Research on Low-Fume Processes, Helmet Performance and Fume Sampling.** M. Keane, NIOSH, Morgantown, WV.
- **Placement of Sample Media and Welder Respiratory Protection.** M. Harris, Hamlin & Harris, Inc., Baton Rouge, LA; A. Siert, Xcel Energy, Denver, CO.
- **Manganese Fractionation Using a Sequential Extraction Method to Evaluate Welders' Shielded Metal Arc Welding Exposures at Oil Refineries.** H. Kevin, CDC/NIOSH, Cincinnati, OH.
- **Controlled Comparison of P91 (9% Cr) SMAW Versus FCAW for Fume Exposure Levels, Production Rate, Quality and Cost to Determine Benefit of Process Change.** A. Siert, Xcel Energy, Denver, CO.

RT211

PCBs in the Built Environment: Exposure Assessment and Mitigation Strategies

2:00 PM – 5:30 PM

155EF

Arranger: A. Ashley, TRC Environmental Corporation, Honolulu, HI. **Moderator:** A. Ashley, TRC Environmental Corporation, Honolulu, HI. **Monitors:** J. Springston, TRC Environmental Corp., New York, NY; S. Fess, Xerox Corporation, Webster, NY.

A growing body of evidence worldwide suggests that materials such as paints, caulks, sealants and other building materials may be a significant source of PCB exposure to people living or working in buildings where these materials are present. There is a lack of exposure assessment data among the exposed groups and limited understanding of the emission factors associated with different PCB-containing building materials. The development of additional exposure data for indoor environments would allow for a better understanding of the overall risk from PCBs and aid in the evaluation of proposed methods to mitigate the risks associated with PCBs in the built environment.

- **University of Washington PCB-Containing Window Caulk Removal Pilot Project.** G. Bangs, University of Washington Environmental Health & Safety, Seattle, WA.
- **PCBs in Building Materials — An Update on This Emerging Issue, Real World Challenges and Select Case Studies.** E. Gerdt, TRC Environmental Corporation, New York, NY.
- **Nondestructive Remediation of PCB Contaminated Building Materials-Laboratory and Field-Scale Testing Results.** C. Yestrebky, University of Central Florida, Orlando, FL.
- **Polychlorinated Biphenyls (PCBs) in Residential Indoor Air and in the Serum of Older, Long Time Residents of Three Upper Hudson River Communities.** E. Fitzgerald, University at Albany, SUNY, Rensselaer, NY.
- **The Role of Biological Monitoring in Exposure Assessments for PCBs in the Built Environment.** S. Que Hee, University of California at Los Angeles, Los Angeles, CA.

- **Evaluating Noncancer Health Risks from Inhaled PCBs.** G. Lehmann, United States Environmental Protection Agency, Research Triangle Park, NC.
- **PCBs, Yusho Disease and TSCA: The Differences between Risk Perception and Science.** J. Okun, O'Reilly, Talbot & Okun Associates, Inc., Springfield, MA.

CR307

Implementing the New NFPA 70E (2015 Edition) Electrical Safety Requirements

3:30 PM – 4:30 PM

255D

Presenter: P. Zoubek, Zoubek Consulting, LLC, San Diego, CA.

For almost 40 years, NFPA 70E (Standard for Electrical Safety in the Workplace) consensus standard has been the gold standard in worker protection from electrical hazards. It provides guidance on worker protection from arc flash and shock hazard during energized electrical work. In late 2014, NFPA released the 2015 Edition of NFPA 70E. This presentation will highlight the standard revisions.

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AIHA
Booth #617

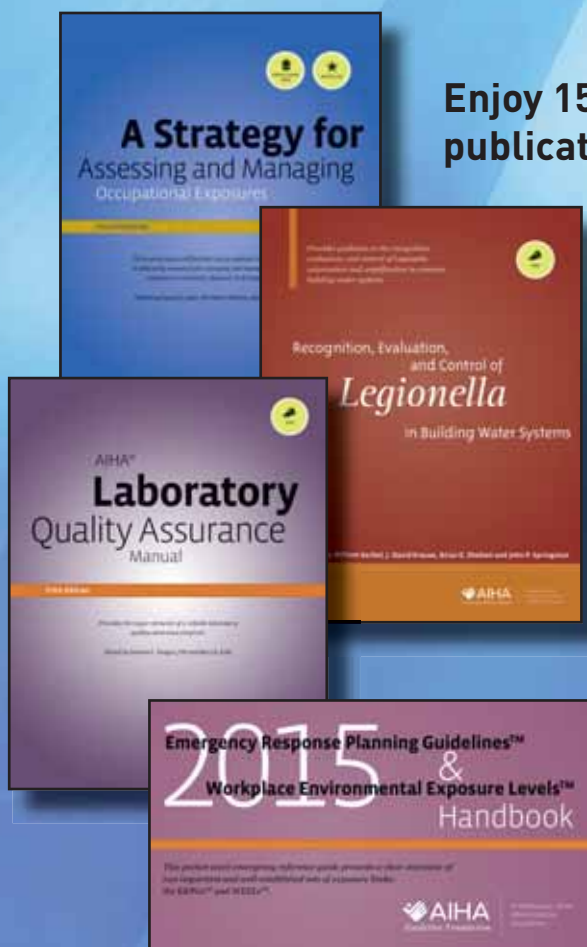
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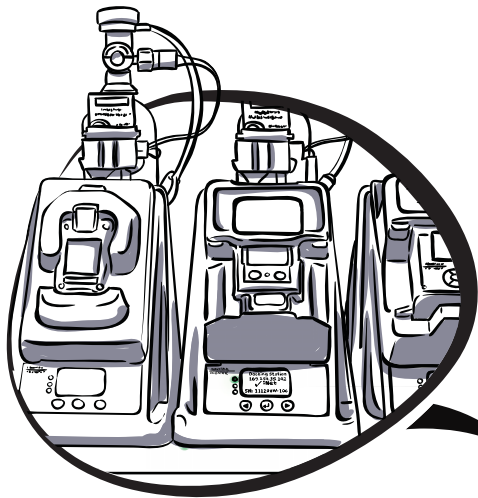
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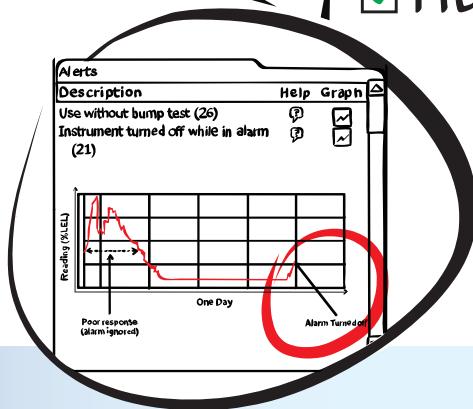
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Tuesday At-a-Glance

Tuesday, June 2

7:00 AM – 8:00 AM

AIHce Spouse/Guest Lounge, *Marriott (HQ), Grand Ballroom F*

7:30 AM – 5:30 PM

Registration, *SPCC, South Foyer*

Speaker Ready Room, *SPCC, 254A/B*

8:00 AM – 9:00 AM

General Session



David Weil



Jordan Barab

Health and Safety Implications of the Fissured Workplace: A Conversation

David Weil, PhD, Administrator, Wage and Hour Division, USDOL, Washington D.C., Jordan Barab, Deputy Assistant Secretary of Labor, OSHA, USDOL, Washington DC., Dan Anna, PhD, CIH, CSP; President-elect, AIHA, *SPCC, Grand Ballroom C-J*

9:00 AM – 2:00 PM

Exhibitor Product Demos and Presentations, *SPCC, Exhibit Halls C/D/E, Expo Learning Pavilions*

9:00 AM – 3:00 PM

Expo

Passport to Prizes, Lounges, Expo Learning Pavilions, Special Displays, Concessions
SPCC, Exhibit Halls C/D/E

Poster Sessions

SPCC, Exhibit Halls C/D/E

PS 403 Authors Present 10:00 a.m. – Noon

PS 404 Authors Present 1:00 p.m. – 3:00 p.m.

9:00 AM – 4:00 PM

CareerAdvantage Development Fair 2015, *SPCC, Grand Ballroom B*

Volunteer Red Carpet Club, *SPCC, Grand Ballroom A*

10:30 AM–11:30 AM

- CR308 – Food Manufacturing: Safer to Eat There than to Work There, *SPCC, 155D*
- CR309 – Industrial/Occupational Hygienists: Working “Outside” the Box, *SPCC, 255D*
- IL04 – Ask the Expert: Dr. David Weil and Jordan Barab, *SPCC, 155 E/F*
- SP06 – 15th Annual Upton Sinclair Memorial Lecture for Outstanding EHS Investigative Reporting *SPCC, 251 D/E/F*

10:30 AM – 12:30 PM

- P0110 – Communications and Training Methods, *SPCC, 355B*
- P0111 – Chemical Characterizations of Contaminants in Indoor Environments: Sampling and Analysis, *SPCC, 155A*
- P0112 – Environmental Microbiology, *SPCC, 255E*
- P0113 – Ergonomics: Sprains, Strains, and Strategies, *SPCC, 355C*
- P0114 – Healthcare Industries, *SPCC, 355E*
- P0115 – Laboratory Health and Safety, *SPCC, 255F*
- P0116 – Respiratory Protection II, *SPCC, 250 D/E/F*
- RT212 – Beryllium: Biological Monitoring, *SPCC, 251 A/B/C*
- RT213 – How Are Occupational Exposure Bands Being Used in Practice?, *SPCC, 155 B/C*

10:30 AM – 1:00 PM

- P0117 – Aerosols I, *SPCC, 355F*

11:00 AM – Noon

- SP07 – NIOSH Response to Climate Change Challenge, *SPCC, 355A*

11:30 AM – 12:30 PM

- CR310 – EHS Accountability and Responsibility: Maintaining Focus on Delivering Results Amidst Organizational Change, *SPCC, 355D*
- CR311 – Frances Perkins: The Social Cost of Fire and the Current Need for Worker Fire Safety, *SPCC, 257*

12:30 PM – 1:30 PM

- SP08 – William P. Yant Award Lecture: Advancing Industrial Hygiene Worldwide: Do We Have Enough People With IH Technical Skills? IH Certification Programs Around the World., *SPCC, 155D*

12:30 PM – 2:00 PM

SOLD OUT - lunch is included

- IL05 – Unsolved IH Mysteries Workshop, *SPCC, 254C*

1:30 PM–5:00 PM

- SP15- Accredited Laboratories: Maintaining Relevance and Advancing the Industrial Hygiene Profession, *SPCC, 255E*

1:30 PM–5:30 PM

- P0118 – IH General Practice I, *SPCC, 255D*
- RT214 – Cancer and Non-Cancer Endpoints in Asbestos Risk Assessment, *SPCC, 155 E/F*
- RT215 – Analytical Quality in Laboratories: The Triumvirate of Standard Methods, Proficiency Testing and Reference Materials and Their Roles in Assisting the Generation of High Quality Occupational Hygiene Data, *SPCC, 355A*
- RT216 – NIOSH Health Hazard Evaluations: Results of Interesting and Unusual Health Hazard Evaluations, *SPCC, 155 B/C*
- TT05 - Kennecott Utah Copper North (Smelter, Refinery), *SOLD OUT Bus departs SPCC, outside South Foyer entrance at 1:30 PM.*
- TT06 - Kennecott Utah Copper South (Mine, Concentrator) , *SOLD OUT Bus departs SPCC, outside South Foyer entrance at 1:30 PM.*

2:00 PM – 3:00 PM

- CR312 – A Practical Approach to World-Class EHS Leading Indicators: Cross-Industry Lessons from the Best of the Best, *SPCC, 355B*
- CR313 – Safety Training Games: Let’s Play!, *SPCC, 155A*

2:00 PM – 4:00 PM

- P0119 – Exposure Assessment Strategies: Modeling, *SPCC, 251 A/B/C*

2:00 PM – 4:30 PM

- RT217 – Hazardous Drugs: A Closer Look at Aerosols, Surface Sampling and Decontamination, *SPCC, 250 D/E/F*
- RT218 – Computational Fluid Dynamics in Industrial Hygiene: Applications for Exposure Assessment and Control, *SPCC, 355D*

2:00 PM – 5:00 PM

- RT219 – Industrial Hygiene and Safety in Non-traditional Industries, *SPCC, 250 A/B/C*

- RT220 – Vibration: the Forgotten Risk Factor, *SPCC, 355C*
- RT221 – Total Worker Health in Construction, *SPCC, 251 D/E/F*
- RT222 – Hack Hack: Who's There?, *SPCC, 355 E*
- RT223 – OEHS Management Skills for the 21st Century, *SPCC, 355F*

2:00 PM – 5:30 PM

- RT224 – Industrial Hygiene and Occupational Health in Mining, *SPCC, 155D*

2:30 PM – 4:00 PM

- IL06 – Ignite: Enlighten Me but Make it Quick! Offering Enlightenment and Knowledge — In a Hurry!, *SPCC, 255 A/B/C*



3:30 PM – 4:30 PM

- CR314 – Ethics for the EHS Professional, *SPCC, 355B*
- CR315 – Combustible Dust Hazard Identification and Control: NFPA Standards Overview, *SPCC, 155A*

AIHA

10:00 AM – Noon

Indoor Environmental Quality Committee Meeting, *Hilton, Alpine*

10:30 AM – 11:30 AM

Publications Committee Meeting, *SPCC, 252*

10:30 AM – 12:30 PM

Construction Committee Meeting, *Marriott (HQ), Grand Ballroom G/H*

Mentoring & Professional Development Committee Meeting, *Hilton, Grand Ballroom A/B*

Occupational & Environmental Medicine Committee Meeting, *Marriott (HQ), Park City*

Oil & Gas Working Group Meeting, *Marriott (HQ), Grand Ballroom E*

Real Time Detection Systems Committee Meeting, *Marriott (HQ), Deer Valley*

10:45 AM – 12:45 PM

Green Council Meeting, *Hilton, Salon 1*

11:30 AM – 1:00 PM

Student Local Sections Council Business Meeting, *Marriott (HQ), Grand Ballroom B/C*

Noon – 1:00 PM

Orange Council Meeting, *Hilton, Salon 2*

1:00 PM – 2:00 PM

Yellow Council Meeting, *Hilton, Salon 3*

1:00 PM – 3:00 PM

Local Sections Council Business Meeting, *Marriott (HQ), Grand Ballroom F*

2:00 PM – 4:00 PM

Clandestine Lab Working Group Meeting, *Hilton, Canyon B*

Minority SIG Meeting, *Hilton, Salon 1*

Nanotechnology Working Group Meeting, *Hilton, Alpine*

Stewardship & Sustainability Committee Meeting, *Hilton, Grand Ballroom A/B*

Toxicology Committee Meeting, *Hilton, Salon 2*

4:00 PM – 6:00 PM

Protective Clothing & Equipment: Train the Trainer, *Marriott (HQ), Cottonwood*

4:30 PM – 6:30 PM

Engineering Industry SIG Meeting, *Hilton, Salon 3*

5:00 PM – 6:30 PM

Non-ionizing Radiation Committee Meeting, *Hilton, Salon 1*

5:00 PM – 7:00 PM

Aerosol Technology Committee Meeting, *Hilton, Salon 2*

Noise Committee Meeting, *Hilton, Alpine*

5:30 PM – 7:30 PM

Ergonomics Committee Meeting, *Hilton, Grand Ballroom A/B*

ABIH

6:30 AM – 8:00 AM

ABIH Past Chairs Breakfast, (by invitation), *Marriott (HQ), Grand Ballroom A*

AIHF

6:30 AM – 8:00 AM

Fun Run, *Memory Grove, 300 N. Canyon Rd., Sponsored by American Heart Association, IH&SC, and ALS*

4:15 PM – 6:15 PM

AIHF Board of Trustees, *Marriott (HQ), Park City*

JOEH

12:00 PM – 2:00 PM

JOEH, LLC Board Meeting, *Marriott (HQ), Alta*

Ancillary

9:00 AM – 11:00 AM

Focus on Accreditation, *Hilton, Canyon B*

3:00 PM – 5:00 PM

CRBOH Annual General Meeting, *Hilton, Grand Ballroom C*

4:00 PM – 6:00 PM

UC Berkeley School of Public Health Reception (by invitation), *Marriott (CC), Sundance*

4:30 PM – 6:00 PM

University of Central Missouri Alumni & Friends (by invitation), *Marriott (CC), Amethyst*

University of Michigan Alumni Reception (by invitation), *Marriott (CC), Olympus*

University of Texas, University of Houston Clear Lake, and University of North Texas Health Science Center Reception, *Hilton, Canyon C*

5:00 PM – 7:00 PM

UW Environmental & Occupational Health Science Reception (by invitation), *Marriott (HQ), Deer Valley*

Gasmert Marketing Meeting (by invitation), *Hilton, Canyon A*

6:30 PM – 7:30 PM

MSA/AIHA Reception, *Marriott (HQ), Grand Ballroom*

7:30 PM – 8:30 PM

Purdue University – School of Health Sciences Reception, *Hilton, Grand Ballroom C*

Session Format Key

CR = EHS Crossover Program

IL = Interactive Learning

PO = Podium Session

PS = Poster Session

RT = Roundtable

SS = Science Symposium

SP = Special Session

TT = Technical Tour

Tuesday, June 2

Technical Sessions



David Weil



Jordan Barab

General Session

8:00 A.M.-9:00 A.M. **GRAND BALLROOM C-J**

Health and Safety Implications of the Fissured Workplace: A Conversation

Presenters: David Weil, PhD, Administrator, Wage and Hour Division, USDOL, Washington D.C., Jordan Barab, Deputy Assistant Secretary of Labor, OSHA, USDOL, Washington DC. **Moderator:** Dan Anna, PhD, CIH, CSP; President-elect, AIHA.

Work has changed dramatically in the past 30 years, and not just technologically. Whether it is in construction, manufacturing or other industries, it has become increasingly common for employers to contract out work, moving anything other than core operations to outside and independent contractors. However, this trend has major implications on the health and safety of employees. Join two of the top U.S. Department of Labor administrators in this thought provoking, moderated conversation as they discuss challenges of the fissured workplace, and creative ways to deal with it.

CR308

Food Manufacturing: Safer to Eat There than to Work There

10:30 AM-11:30 AM **155D**

Presenter: S. Harris, UL Workplace Health & Safety, Franklin, TN.

It's safer to eat the food than to work in many facilities that make it. Posting a lost-time injury rate nearly double the U.S. average for private industry, hundreds of thousands of work days and billions of dollars lost to injuries are not going away without a shift in how food manufacturing manages safety. The sustainable solution is developing a culture of safety. It's a lifestyle change for the organization that starts with an absolute commitment to safety.

CR309

Industrial/Occupational Hygienists: Working "Outside" the Box

10:30 AM - 11:30 AM **255D**

Presenter: K. O'Connell, OHS/IH, WESA, a Division of BluMetric Environmental Inc., Ottawa, ON, Canada.

As hygienists, expertise in exposure science (art) is applicable not only to workers in the traditional indoor work environment, but also to outdoor workers. Ambient air around outdoor remediation activities is often monitored to meet environmental and occupational hygiene requirements. Using descriptions of mining, construction, and demolition remediation projects, this session compares and contrasts environ-

mental and hygiene sampling methodologies and exposure guidelines, and provides strategies to evaluate occupational and environmental risks.

IL04

Ask the Expert: Dr. David Weil and Jordan Barab

10:30 AM - 11:30 AM **155EF**

Moderator: Aaron Trippler, AIHA, Falls Church, VA.

This special interactive session follows the General Session presentation, "Health and Safety Implications of the Fissured Workplace" and provides an opportunity for interaction with our keynote presenters.

SP06

15th Annual Upton Sinclair Memorial Lecture for Outstanding EHS Investigative Reporting

Temp Land: Working in the New Economy

10:30 AM - 11:30 AM **251DEF**



Presenter: Michael Grabell, Staff Writer, ProPublica, New York, NY.

Since the recession, the U.S. economy has seen record growth in blue-collar temp work – an industry sector in which workers suffer high injury rates and often face fees that depress their pay below minimum wage. The growth has led to a proliferation of what researchers have begun to call "temp towns," where workers wait for hours in labor halls in a modern-day version of the "shape up"

or line up in alleyways for neighborhood labor brokers known as "raiteros" to shuttle them to the supply chain of some of America's largest companies. Grabell, an investigative reporter for ProPublica, will take us to these temp towns and present a new data analysis, which shows that temp workers have higher injury rates than regular employees doing the same type of work. Grabell will tell the stories of workers and lessons learned from the data, interviews, and OSHA investigative files.

PO110

Communications and Training Methods

10:30 AM - 12:30 PM **355B**

Arranger: J. Dimos, Oak Park, IL. **Moderator:** J. Dimos, Oak Park, IL. **Monitors:** K. Eganhouse, Kemah, TX; B. Rathbun, U.S. Army Public Health Command, APG, MD.

10:30 AM - 10:50 AM

CS-110-01 OSHA's Hazard Communication Standard (HCS 2012) Revised Compliance Directive – An Enforcement Overview. D. Williams, USDOL-OSHA, Washington, D.C.

10:50 AM - 11:10 AM

CS-110-02 In Plant Labeling, What Now?: Aligning the Hazardous Materials Identification System (HMIS®) with the Updated OSHA Hazard Communication Standard and GHS. S. Sides, American Coatings Association, Washington, D.C.; A. Dartt, L. Anderson, Golder Associates, St Charles, MO.

Exhibitor Product Demos and Presentations

9:00 A.M. – 2:00 P.M., EXPO LEARNING PAVILIONS 1 & 2, EXPO HALL

9:00 A.M. – 9:30 A.M.

Bluetooth Enabled Personal Noise Dosimeter provides real-time alerts and remote data viewing on your hand-held device!

Casella

Expo Learning Pavilion 1

Casella revolutionizes noise exposure assessment by introducing The DBadge2 dosimeter - a fully functional shoulder-mounted dosimeter that can communicate with your SmartPhone, Tablet, iPad or PC using wireless Bluetooth communications - making your noise dosimetry sampling program far more efficient and effective!

9:00 A.M. – 9:30 A.M.

Gasmet Model DX4040 Portable FTIR Gas Analyzer identifies “unknown” toxic gases in emergency response, hazmat and workplace IH monitoring applications

Gasmet Technologies

Expo Learning Pavilion 2

The Model DX4040 portable FTIR gas analyzer can identify “unknown” gases within minutes of arriving at site by searching the NIST/EPA® reference library of over 5,000 gases. Measuring 25 gases simultaneously at sub-ppm levels, the DX4040 is also a cost-effective solution for performing workplace exposure assessments.

9:30 A.M. – 10:00 A.M.

The Dangers of Not Having a Heat Stress Management Program

Sper Scientific

Expo Learning Pavilion 1

Exposure to heat can cause illness and death. OSHA considers heat stress to be a major concern. As such, OSHA has increasingly cited employers who fail to have an adequate heat stress management program in place. Learn how you

can put a program in place to effectively monitor heat stress.

9:30 A.M. – 10:00 A.M.

Creating a Compliant GHS SDS – What You Need to Know

UL Information and Insights – The Wercs

Expo Learning Pavilion 2

New OSHA GHS standards will affect over 43 million workers. GHS classifications are based on chemical data, helping manufacturers/suppliers/importers to define the potential physical, health and environmental hazards of their products and/or materials to downstream users. The Wercs provides leading comprehensive software tools/services for GHS SDS authoring and distribution.

10:00 A.M. – 10:30 A.M.

Streamlining GHS Compliance

CGI

Expo Learning Pavilion 1

Paul Brigandi, Executive Consultant, will demonstrate for CGI how hazard communication software can efficiently manage variations in GHS adoptions across countries. The techniques discussed will be demonstrated using ProSteward360TM to easily address:

- Adoption of different GHS building blocks
- Adoption of different mixture classification thresholds, and
- Mandatory GHS classifications from lists (e.g. EU CLP Annex VI)

10:00 A.M. – 10:30 A.M.

GrayWolf introduces the all-new AdvancedSense® Pro portable, multi-function IH environmental meter

GrayWolf Sensing Solutions

Expo Learning Pavilion 2

A powerful new meter for monitoring a broad range of IH and IAQ parameters. Seamlessly combine portability, short-term monitoring and WiFi access with

built-in cameras and notation functions for documenting and producing detailed auto-reports for environmental surveys. 32+ available parameters include: TVOCs, Ozone, Formaldehyde, CO2, NH3, NO2, Particulate, Air Velocity and more.

12:30 P.M. – 1:00 P.M.

Considerations for applying continuous real-time photometric systems for environmental aerosol monitoring

TSI Incorporated

Expo Learning Pavilion 2

TSI will discuss the challenges associated with outdoor environmental aerosol monitoring and the solutions available to get meaningful data from direct-reading photometric instruments.

1:00 P.M. – 1:30 P.M.

Why All Docking Stations Are Not the Same

Industrial Scientific Corporation

Expo Learning Pavilion 1

Docking stations have become an integral part of most gas detection programs, but are all docking stations the same? The simple answer is no. Attend this presentation to find out the capabilities required of your docking station in order to achieve an effective gas detection program that ensures worker safety.

1:30 P.M. – 2:00 P.M.

Considerations for proper selection and use of direct reading instruments

RAECO Rents

Expo Learning Pavilion 2

Direct reading instruments can be used to detect a wide range of gases, vapors, particles, noise and heat. The data can support good decision making only if you are aware of the instruments capabilities and limitations and you understand what the data is actually telling you.

Technical Sessions TUESDAY, JUNE 2

11:10 AM – 11:30 AM

CS-110-03 Delivering Industrial Hygiene Training Programs to Developing Countries: An Online Path. D. Zalk, UIC GPOHP, San Jose, CA.

11:30 AM – 11:50 AM

CS-110-04 Health Links Colorado™: Creating a Healthier, More Productive Workforce through Workplace Training and Education. M. Haan, Center for Worker Health and Environment, Colorado School of Public Health, Aurora, CO.

11:50 AM – 12:10 PM

SR-110-05 Effectiveness of Educational and Behavioral Interventions to Reduce Isocyanate Exposure in the Auto Body Repair and Refinishing Industry: A Cluster-Randomized Controlled Trial. Y. Liu, Environmental and Occupational Health Sciences, University of North Texas Health Science Center, Fort Worth, TX; M. Stowe, J. Sparer, C. Redlich, Yale University, New Haven, CT.

12:10 PM – 12:30 PM

CS-110-06 Influencing Safe Behavior as a Strategy for Reducing Preventable Hydrogen Sulfide Exposures. D. Lee, Shell Health, Shell Oil Company, League City, TX.

PO111

Chemical Characterizations of Contaminants in Indoor Environments: Sampling and Analysis

10:30 AM – 12:30 PM 155A

Arranger: E. Sobek, Assured Bio Labs, LLC, Oak Ridge, TN. **Moderator:** B. Kollmeyer, Forensic Analytical Consulting Services, Rancho Dominguez, CA. **Monitors:** K. Boyce-Lindgren, University of Toledo, Woodridge, IL; L. Rogers, Mycometer, Inc., Tampa, FL.

10:30 AM – 10:50 AM

CS-111-01 A Novel Method for Determining Chemical Residues from Fire and Smoke in Indoor Air. A. Delia, Prism Analytical Technologies, Inc., Mt. Pleasant, MI; K. Martin, Prism Analytical Technologies, Inc., Mt. Pleasant, MI; D. Baxter, Environmental Analysis Associates, Inc., San Diego, CA.

10:50 AM – 11:10 AM

SR-111-02 A Comparison of Canisters and Solid Sorbent Tubes for Air Sampling of Volatile Organic Compounds in Indoor Environments for 14 to 21 Days. A. Rossner, Institute for a Sustainable Environment, Clarkson University, Potsdam, NY.

11:10 AM – 11:30 AM

SR-111-03 Representativeness of Single-Point Sampling for Estimating Residential Indoor Air Temperature and Relative Humidity. J. Johnston, B. Magnusson, D. Eggett, Health Science, Brigham Young University, Provo, UT; S. Collingwood, University of Utah, Salt Lake City, UT; S. Bernhardt, Utah State University, Logan, UT.

11:30 AM – 11:50 AM

SR-111-04 Characterization of Malodors from a Polymethyl Methacrylate Roof Membrane System. J. Kominsky, Environmental Quality Management, Inc., Cincinnati, OH.

11:50 AM – 12:10 PM

SR-111-05 Particulate and Chemical Emissions from 3-Dimensional Printers. A. Stefaniak, M. Duling, R. LeBouf, NIOSH, Morgantown, WV; J. Yi, T. Nurkiewicz, West Virginia University, Morgantown, WV.

12:10 PM – 12:30 PM

CS-111-06 Mercury Vapor Analysis of Cinnabar in Simulated Shipping Conditions by Atomic Fluorescence Spectroscopy. C. Altamirano, Sales Test Lab, Arizona Instrument, Chandler, AZ.

PO112

Environmental Microbiology

10:30 AM – 12:30 PM 255E

Arranger: R. Saito, University of Texas Health Science Center at Tyler, Tyler, TX. **Moderator:** R. Strode, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO. **Monitors:** R. Lewis, St. Louis University, St. Louis, MO; A. Ashley, TRC Environmental Corporation, Honolulu, HI.

10:30 AM – 10:50 AM

SR-112-01 Characterization of a Piezoelectric Inkjet Aerosol Generator for Bioaerosol Survivability Study. Y. Kuo, Chung Hwa University of Medical Technology, Tainan, Taiwan; S. Huang, C. Lin, W. Wu, W. Ke, C. Chen, National Taiwan University, Taipei, Taiwan.

10:50 AM – 11:10 AM

SR-112-02 Transport of Microbial Particles on Fibers in Occupational Environments. R. Gorny, A. Lawniczek-Walczyk, A. Stobnicka, Central Institute for Labour Protection – National Research Institute, Warsaw, Poland.

11:10 AM – 11:30 AM

SR-112-03 Seven Novel Penicillium Species, and Two Novel Citreoviridin Producing Species of Section Eupenicillium. Z. Jurjevic, Microbiology, EMSL Analytical, Inc., Cinnaminson, NJ; S. Peterson, Microbial Genomics and

Bioprocessing Unit, National Center for Agricultural Utilization Research, Agricultural Research Service, USDA, Peoria, IL; J. Frisvad, Technical University of Denmark, Lyngby, Denmark.

11:30 AM – 11:50 AM

SR-112-04 Estimating the Accuracy of Single Outdoor Samples. H. Burge, Environmental Microbiology Laboratory, San Bruno, CA.

11:50 AM – 12:10 PM

SR-112-05 Diseases Attributable to Common Indoor Molds. H. Burge, EM-Lab, San Bruno, CA.

12:10 PM – 12:30 PM

CS-112-06 A Case Study on Investigation into Environmental Sources of Legionella Bacteria at a Recreational Spa Facility. M. Canright, J. Martinelli, Forensic Analytical Consulting Services, East Rancho Dominguez, CA.

PO113

Ergonomics: Sprains, Strains, and Strategies

10:30 AM – 12:30 PM 355C

Arranger: B. McGowan, Humantech, Inc., Ann Arbor, MI. **Moderator:** M. O'Reilly, School of Public Health, Manlius, NY. **Monitors:** M. Zock, FedEx Ground, Moon Township, PA; J. Haney, ARLS Consultant Inc., Manlius, NY.

10:30 AM – 10:50 AM

SR-113-01 Sitting time, Obesity, and Injury at Work. T. Lin, T. Courtney, D. Lombardi, S. Verma, Liberty Mutual Research Institute for Safety, Hopkinton, MA.

10:50 AM – 11:10 AM

SR-113-02 Development of a Fatigue Failure-Based Ergonomics Assessment Tool for Low Back Disorder Risk. S. Gallagher, Auburn University, Auburn, AL.

11:10 AM – 11:30 AM

SR-113-03 Observation-Based Posture Assessment: Toward a Best Practice Approach. D. Andrews, P. Weir, Kinesiology, University of Windsor, Windsor, ON, Canada; B. Lowe, NIOSH, Cincinnati, OH.

11:30 AM – 11:50 AM

CS-113-04 Evaluating and Improving Short and Long Term Shoulder Injury Risk. J. Guerin, Health, Safety and Environmental Services, Bureau Veritas North America Inc., Seattle, WA.

11:50 AM – 12:10 PM

CS-113-05 A Proposed Mobile Application to Include Multiple Ergonomic Assessment Tools. R. Thomas, N. Ketzler, S. Gallagher, R. Sesek, C. Seals, Auburn University, Auburn, AL; S. Gibson, Ergonomics Applications, Salem, SC.

12:10 PM – 12:30 PM

CS-113-06 The Aging Workforce: Changes in Muscle Physiology. B. McGowan, Humantech, Inc., Ann Arbor, MI.

PO114

Healthcare Industries

10:30 AM – 12:30 PM

355E

Arranger: M. Jones, Iowa City VA Health Care System, Iowa City, IA. **Moderator:** J. Koerner, Washington, DC. **Monitors:** S. Carry, National Environmental Health & Safety, Kaiser Permanente, Oakland, CA; M. Jones, Iowa City VA Health Care System, Iowa City, IA.

10:30 AM – 10:50 AM

CS-114-01 The Effect of Microcystin Contamination on Drinking and Process Water in Healthcare. M. Valigosky, S. Milz, Public Health & Prevent. Med., University of Toledo, Toledo, OH; A. Ames, University of Toledo, Toledo, OH; F. Akbar-Khanzadeh, UT HSC College of Medicine, Toledo, OH.

10:50 AM – 11:10 AM

SR-114-02 Evaluation of Legionella Pneumophila Contamination in a Research Center's Water System by Quantitative Real-Time PCR Isolation and Colony. J. Kominsky, Environmental Quality Management, Inc., Cincinnati, OH.

11:10 AM – 11:30 AM

SR-114-03 Exposures to Waste Anesthetic Gases: Case Studies during Surgical Procedures. S. Derman, Medishare Environmental Health & Safety Services, Cupertino, CA.

11:30 AM – 11:50 AM

CS-114-04 Balancing Patient and Employees: Peracetic Acid Use during Disinfection in Healthcare. M. Squillace, M. Austin, J. Nesbitt, Mayo Clinic, Rochester, MN.

11:50 AM – 12:10 PM

CS-114-05 Proactive Mitigation to an Anticipated Increase in Occupational Injuries When Opening a New Healthcare Facility. A. Juras, EORM, San Jose, CA.

12:10 PM – 12:30 PM

SR-114-06 Anti-oxidant Rich Diet, Healthy Life-Style and a Rigorous Radiation Exposure Control Program Protect Healthcare Employees from Radiation-Induced Oxidative Damage. R. Bardhan, M. Richard, R. Heath, E. Maples, C. Lungu, University of Alabama at Birmingham, Hoover, AL.

PO115

Laboratory Health and Safety

10:30 AM – 12:30 PM

255F

Arranger: L. Wong, EH&S, University of California Office of the President, Oakland, CA. **Moderator:** D. Harrington, Genentech, San Francisco, CA. **Monitors:** R. Lally, Aurora Industrial Hygiene, San Diego, CA; D. Hurley, North Carolina Research Campus, Kannapolis, NC.

10:30 AM – 10:50 AM

CS-115-01 Advancing Safety Culture Academic Research Laboratories: Next Steps. L. Gibbs, EHS, Stanford University, Stanford, CA.

10:50 AM – 11:10 AM

CS-115-02 Implementing GHS in Labs. A. Mims, C. Davis, Eli Lilly & Company, Indianapolis, IN.

11:10 AM – 11:30 AM

SR-115-03 Evaluating Staff Recognition of Chemical Hazards in the Laboratory Environment. T. Barton, Environmental Health and Safety, St. Jude Children's Research Hospital, Memphis, TN.

11:30 AM – 11:50 AM

CS-115-04 Reducing Researcher Exposures to Isoflurane during Animal Surgery. E. Mellas-Hulett, J. Labossiere, T. Buttolph, University of Vermont, Burlington, VT.

11:50 AM – 12:10 PM

CS-115-05 Case Study: The OSHA Salt Lake Technical Center Chemical Hygiene Plan. D. Anderson, DOL/OSHA/Salt Lake Technical Center, Sandy, UT.

12:10 PM – 12:30 PM

CS-115-06 EHS Issues of Digital Fabrication. D. Herrick, P. Greenley, J. Doughty, W. Mbah, MIT, Cambridge, MA; A. Kalil, MIT Lincoln Laboratory, Lexington, MA.

PO116

Respiratory Protection II

10:30 AM – 12:30 PM

250DEF

Arranger: J. Szalajda, NIOSH. **Moderator:** J. Hauge, 3M. **Monitors:** S. Sushailo, San Juan, PR; N. Gaydos, Axiall Corp.

10:30 AM – 10:50 AM

SR-116-01 Simulation of N95 FFR Efficiency to Determine a Potential Protection Factor. P. O'Shaughnessy, Occupational & Environmental Health, University of Iowa, Iowa City, IA.

10:50 AM – 11:10 AM

SR-116-02 Comparing Real-Time Fit Factors to Traditional Fit Factors by OSHA Exercise for N95 Respirators. M. Sietsema, L. Brosseau, University of Illinois at Chicago, Chicago, IL.

11:10 AM – 11:30 AM

SR-116-03 Filter Performance of N95 FFRs in Dry and Moderately Humid Air: Manikin-based Study with NaCl and Combustion Aerosols. S. Gao, S. Grinshpun, J. Kim, M. Yermakov, Y. Elmashae, T. Reponen, Department of Environmental Health, University of Cincinnati, Cincinnati, OH; X. He, West Virginia University, Morgantown, WV.

11:30 AM – 11:50 AM

SR-116-04 Evaluation of the Effect of Head Strap Length on Facial Fit of N95 Filtering Facepiece Respirators. M. Bergman, Z. Zhuang, A. Palmiero, G. Niezgoda, NIOSH/NPPTL, Pittsburgh, PA.

11:50 AM – 12:10 PM

SR-116-05 Particle Size Penetration of Diesel Particulate Matter through Respirator Filter Media. K. Burton, J. Whitelaw, A. Jones, University of Wollongong, Wollongong, NSW, Australia.

12:10 PM – 12:30 PM

SR-116-06 Development of a New Data Acquisition System for Recording and Analyzing In-Facepiece Pressures during NIOSH Breathing Machine Tests. J. Parker, NIOSH, Pittsburgh, PA.

RT212

Beryllium: Biological Monitoring

10:30 AM – 12:30 PM

251ABC

Arranger: C. Elish, Eulless, TX. **Moderator:** K. Diep, American Airlines, Fort Worth, TX. **Monitor:** J. Snawder, NIOSH, Cincinnati, OH.

Exposure to beryllium can cause significant health effects ranging from respiratory complications, skin sensitization to cancer. This roundtable will explore the various impacts of beryllium exposure, how the beryllium lymphocyte proliferation test (BeLPT) helps to identify sensitized workers, the practical application of the test, beryllium medical surveillance with the BeLPT test, and the effectiveness of the existing governmental standards for beryllium.

- **Beryllium Sensitization: Identification, Exposure, Immune Response Pathway and Biological Monitoring Methods.** S. Taruru, National Security Technologies, Mercury, NV; A. Stange, Oak Ridge Associated Universities, Oak Ridge, TN; S. Lee, Lawrence Livermore National Laboratory, Livermore, CA.
- **Use of the Beryllium Lymphocyte Proliferation Test in Industry.** M. Kent, Materion Brush Inc., Elmore, OH.

- **Industrial Hygiene Application of Beryllium Lymphocyte Proliferation Test Results and Dealing with Affected Worker Concerns.** G. Whitney, Los Alamos National Laboratory, Los Alamos, TX.
- **Be: Whither the PEL, REL, TLV®, or Biological Recommendations?** S. Que Hee, UCLA, Los Angeles, CA.

RT213

How Are Occupational Exposure Bands Being Used in Practice?

10:30 AM – 12:30 PM 155BC

Arranger: L. McKernan, CDC/NIOSH, Cincinnati, OH. **Moderator:** S. Derman, Medishare Environmental Health & Safety Services, Cupertino, CA. **Monitors:** M. Phibbs, Chemscape, Calgary, AB, Canada; D. Zalk, LLNL, Livermore, CA.

A challenging area for professionals is to determine how to effectively characterize the risk presented by an exposure and to convey this characterization in a way that has meaning to a particular stakeholder. In the pharmaceutical industry, the assignment of occupational exposure bands (OEB) has become standard practice. A major role of OEBs is to provide an alternative benchmark for assessing exposure in the absence of an occupational exposure limit (OEL). This session provides an overview of various OEB approaches, how risk can be communicated using OEBs and their implementation in the workplace.

- **How are Occupational Exposure Bands Created?: The NIOSH OEB Process.** L. McKernan, NIOSH, Cincinnati, OH.
- **Using Occupational Exposure Bands to Support Occupational Exposure Limit Development: Observations from the WEEL™ Committee.** A. Maier, University of Cincinnati, Cincinnati, OH.
- **Banding is a New Way to Communicate Risk.** F. Boelter, ENVIRON International, Chicago, IL.
- **Utilizing OEBs and Control Banding in Practice.** R. Sussman, SafeBridge Consultants, Inc., New York, NY.

PO117

Aerosols I

10:30 AM – 1:00 PM 355F

Arranger: M. Murphy, 3M, St. Paul, MN.

10:30 AM – 11:00 AM

Swift Award

11:00 AM – 11:20 AM

SR-117-01 Deposition of Graphene Aerosol in Human Airways. W. Su,

Lovelace Respiratory Research Institute, Albuquerque, NM.

11:20 AM – 11:40 AM

SR-117-02 Development and Characterization of PM2.5 Samplers. H. Hung, C. Hsu, S. Huang, J. Lai, C. Chen, Department of Public Health, National Taiwan University, Taipei, Taiwan; Y. Kuo, Chung Hua University of Medical Technology, Tainan, Taiwan.

11:40 AM – 12:00 PM

SR-117-03 Direct-reading Instrument Correlation for Dry Aerosol Personal Decontamination Method Evaluation. C. Lieb, J. Slagley, J. Engler, Safety Sciences, Indiana University of Pennsylvania, Indiana, PA.

12:00 PM – 12:20 PM

SR-117-04 Development of a Low-Cost Integrated Sampler and Sample Pump. C. L'Orange, C. Quinn, D. Miller-lionberg, J. Volckens, Colorado State University, Fort Collins, CO.

12:20 PM – 12:40 PM

SR-117-05 A Sampling and Measurement System for Motorcycle Exhaust PM2.5. J. Lai, S. Huang, C. Hsu, C. Chen, Department of Public Health, National Taiwan University, Taipei, Taiwan; H. Cheng, The Environmental Analysis Laboratory, Taoyuan, Taiwan.

12:40 PM – 1:00 PM

CS-117-06 A Semi-Automated Scanning Electron Microscopy and Energy Dispersive X-ray (EDS) Method to Identify the Composition and Source(s) of Airborne and Surface Dust Complaints. D. Baxter, Environmental Analysis Associates, Inc., San Diego, CA.

SPO7

NIOSH Response to Climate Change Challenge

11:00 AM – 12:00 PM 355A

Presenters: M. Keifer, NIOSH, Denver, CO; J. Lincoln, NIOSH, Anchorage, AK, P. Shulte, NIOSH, Cincinnati, OH.

This session will describe how NIOSH is addressing the health and safety research needs and the components of a strategic research plan related to occupational safety and health (OSH) and climate change. NIOSH has established an emphasis area to investigate the OSH implications of climate change and develop an action plan to address this important public health issues. NIOSH will identify and prioritize current, emerging, and anticipated worker safety and health issues associated with climate change. OSH research needs in the area of climate change include characterizing increasing hazards from the direct

effects of climate change such as severe weather events, heat, wild land fire, and infectious disease. Other research areas of OSH issues that result from changes in how we address climate change will also be discussed such as the development of renewable energy, carbon sequestration, and material substitution.

CR310

EHS Accountability and Responsibility: Maintaining Focus on Delivering Results amidst Organizational Change

11:30 AM – 12:30 PM 355D

Presenter: C. Johnson, General Electric, Keene, NH.

Accountability and responsibility are critical elements for success in any EHS program. The importance of these elements is further magnified when facing significant organizational change. In this session, several examples and case studies of how the responsibility and accountability for EHS evolved and adapted during a global EHS 'shared services' reorganization within General Electric and how internal customers felt about the change.

CR311

Frances Perkins: The Social Cost of Fire and the Current Need for Worker Fire Safety

11:30 AM – 12:30 PM 257

Presenter: D. Bryant, J. Hartle, University of Central Missouri, Warrensburg, MO. **Moderator:** S. Hicks, University of Central Missouri, Warrensburg, MO. **Monitor:** L. Phan, University of Illinois at Chicago, Chicago, IL.

A speech made 100 years ago by future Secretary of Labor Frances Perkins was inspired by her eyewitness account of the Triangle Shirtwaist Fire. Perkins passionately argued for greater fire safety measures to protect workers. The National Fire Protection Association responded and promulgated standards and codes for establishing fire safe workplaces. Although these fatal fire workplace incidents are rare in the U.S., other industrializing countries have experienced high worker fatalities due to fires. Revisiting Frances Perkins' fiery remarks might inspire a renewed commitment to worker fire safety throughout the world.

SP08

William P. Yant Award Lecture

Advancing Industrial Hygiene Worldwide: Do We Have Enough People With IH Technical Skills? IH Certification Programs Around the World.

12:30 PM – 1:30 PM

155D



Presenter: Noel H. Tresider FAIOH, COH, CIH, Petroch Services Pty Ltd, Melbourne, Victoria, Australia.

The answer is Yes in a few other countries, but which countries?

We have at least 17,300 people with IH technical skills; however based on GDP we need 33,500 people. The top 5 countries where we need them are China, Russia, India, Indonesia, Turkey

However based on working population, we need 84,000 people with IH technical skills. Here is the where we need them. China, India, Indonesia, Bangladesh, Russia

If we had these people, how would we train them in the skills of our profession?

This presentation will hopefully provide some of those answers. www.OHlearn-ing.com (Occupational Hygiene Training Association)

We have 7,700 Certified Occupational/ Industrial Hygienists around the world; however based on GDP we need 10,500 certified hygienists. The top 5 countries where need them are China, Russia, India, Indonesia, Turkey

However based on working population, we need 40,000 certified hygienists. Here is the where we need them – China, India, Indonesia, Bangladesh, Russia

Who will certify them? Those with IOHA National Accreditation Recognition certification schemes.

There are now 15 countries with IOHA recognized certification schemes in 9 languages with a common criterion. We need more IOHA recognized certification schemes. Opportunities abound.

Full session descriptions on the AIHce Mobile App.



ILO5

Unsolved IH Mysteries Workshop

(Pre-registration fee required- lunch is included)

12:30 PM – 2:00 PM

254C

Facilitator: B. Adams, Safex, Westerville, OH.

Test your knowledge! Actual IH case studies are worked through in this team challenge. Participants are given all the data – players, circumstances, and time-lines – but not the outcomes. At the end of the session, the facilitator explains what actually occurred.

SP15

AIHA-LAP Accredited Laboratories: Maintaining Relevance and Advancing the Industrial Hygiene Profession

1:30 PM – 5:00 PM

255E

Moderator: B. Lieckfield, Bureau Veritas North America, Inc., Novi, MI. **Monitor:** K. Jones, Health Science Associates, Los Alamitos, CA.

Over the past 45 years, the industrial hygiene laboratory community has experienced both growth and decline. This special session will explore the key impacts to the laboratory community, both present and future, with the objective of providing the “Value Proposition” of AIHA Laboratory Accreditation Programs LLC for both the laboratory participants and their customers. In addition to discussion of the quality tools and guidance on how to operate laboratories under ISO Management Systems, the session will provide a forum to discuss what we as Industrial Hygienists and Laboratory Professionals need to do to stay relevant and identify “Hot Topics” that, if addressed, will keep the industrial hygiene profession vibrant in the future.

- **Scientific Roots of Industrial Hygiene.** B. Lieckfield, Bureau Veritas North America, Inc. Novi, MI.
- **Quality System – What is it? Why is it important?** B. Walsh, SGS Galson, Chicago, IL.
- **Continuous Improvement, Fixing Problems Through Root Cause Analysis, Preventative and Corrective Actions.** E. Stuber, SGS Galson, Syracuse, NY.
- **Lean Concepts and IH Laboratory.** D. McCain, Bureau Veritas North America, Inc., Houston, TX.

- **Perspective of the Data User.** C. Ostrowski, CAO Consulting, Rochester, MI; L. Parker, Bureau Veritas North America, Inc., Novi, MI.
- **Industrial Hygiene Laboratory Industry Concerns and Future.** B. Lieckfield, Bureau Veritas North America, Inc., Novi, MI.

PO118

IH General Practice I

1:30 PM-5:30 PM

255D

Arranger: D. Day, Sealed Air, Duncan, SC. **Moderator:** J. Kivuyo, University of Central Missouri, Warrensburg, MO. **Monitors:** S. Caler, University of Arizona, Tucson, AZ; S. Ranpura, GE, Bangalore, India.

1:30 PM – 1:50 PM

SR-118-01 A Simulation Algorithm for Converting Historical Particle Count Data to Respirable Dust Mass. R. Rando, Tulane University SPH&TM, New Orleans, LA.

1:50 PM – 2:10 PM

CS-118-02 Comparison of Quantitative Exposure Assessment Results for Crystalline Silica (Respirable Fraction) with Current and Proposed OSHA Standards. G. Desai, International Safety Systems, Inc., Houston, TX.

2:10 PM – 2:30 PM

SR-118-03 Potential Exposure to Naturally Occurring Diacetyl, 2,3-Pentanedione and Respirable Dust from Roasting and Grinding Coffee Beans in an Industrial Setting. S. Gaffney, A. Abelman, J. Pierce, M. Glynn, L. McCarthy, J. Lotter, M. Liong, J. Henshaw, B. Finley, Cardno ChemRisk, San Francisco, CA.

2:30 PM – 2:50 PM

SR-118-04 Systematic Review and Evaluation of Health Risks Associated with Sepiolite Exposure. M. Le, A. Monnot, M. Grespin, R. Ward, Cardno ChemRisk, San Francisco, CA.

2:50 PM – 3:10 PM

CS-118-05 Industrial Hygiene Exposure Monitoring Programs and Mine Sites: Gap Analysis. L. Clements, P. Bergholz, AMEC, Burnaby, BC, Canada; C. Doyle, Ministry of Energy and Mines, Victoria, BC, Canada.

3:10 PM – 3:30 PM

CS-118-06 Enhanced Confined Space Monitoring. W. Jones, D. Johnson, Total Safety US, Inc., Chino Hills, CA.

3:30 PM – 3:50 PM

CS-118-07 Mining in Northern Ontario, Canada: Challenges Facing Safety and Health. R. Korczynski, AMEC, Thunder Bay, ON, Canada.

3:50 PM – 4:10 PM

SR-118-08 Assessing the Health Effects of Rotating Shift Work among Refinery Workers. K. McNamara, W. Robbins, Env. Health Sciences, UCLA, Santa Monica, CA.

4:10 PM – 4:30 PM

SR-118-09 New Results from the Comprehensive Lead Education and Reduction by Window Replacement (CLEAR-WIN) Program in Illinois. D. Jacobs, M. Tobin, P. Pratap, S. Cali, University of Illinois at Chicago, Chicago, IL; D. Clark, Peoria Health Department, Peoria, IL; S. Dixon, J. Breyse, National Center for Healthy Housing, Washington, D.C.

4:30 PM – 4:50 PM

SR-118-10 Drying Water-Damaged Materials Based on Water Activity. E. Light, R. Gay, Building Dynamics, LLC, Ashton, MD; B. Carter, Decagon, Pullman, WA.

4:50 PM – 5:10 PM

SR-118-11 Distribution and Influence Factors for Knee and Hip Injuries among Retired Workers of Automotive Manufacturing. W. Chen, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.

5:10 PM – 5:30 PM

SR-118-12 Absent vs. Present but Not Quantified: Can a Job-Exposure Matrix Be Used to Predict Samples Where Lead Exposure is Likely Absent in U.S. OSHA Inspection Measurements? J. Hwang, S. Locke, D. Russ, C. Johnson, M. Friesen, NIH, Bethesda, MD; J. Lavoué, University of Montreal, QC, Canada.

RT214

Cancer and Non-Cancer Endpoints in Asbestos Risk Assessment

1:30 PM – 5:30 PM

155EF

Arranger: A. Korchevskiy, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO. **Moderator:** J. Rasmuson, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO. **Monitors:** R. Strode, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO; D. Hall, Chemistry and Industrial Hygiene, Inc., Wheat Ridge, CO.

Asbestos appears to be a well-known and thoroughly studied occupational and environmental hazard. A review of the literature, however, shows that there are still critical controversies in the understanding of asbestos health. This roundtable will continue the tradition of addressing outstanding issues of asbestos risk assessment by a distinguished panel, audience questions and general discussion.

- **Fifty Years Later: Do We Really Know More about Asbestos-Related Cancers than We Did Then?** B. Case, McGill University, Montreal, QC, Canada.
- **What Do We Really Know About the Appropriateness of the Exposure Metrics Used to Assess Asbestos Risk?** D. Berman, Aeolus, Inc., Albany, CA.
- **Asbestos and Smoking Modeling: Paradoxes of Additive and Multiplicative Effects.** A. Korchevskiy, J. Rasmuson, E. Rasmuson, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO.
- **Pathology and Asbestos-Related Disease: Thresholds and Linear Models.** V. Roggli, Duke University, Durham, NC.
- **Risk Assessment Modeling for Asbestos: Is the Armitage-Doll Approach Still Valid?** J. Peto, London School of Hygiene and Tropical Medicine, London, United Kingdom.
- **Linear and Non-Linear Models in Asbestos Risk Assessment.** A. Darnton, Health and Safety Executive, Bootle, United Kingdom.
- **Communicating Challenging Risk Characterizations.** F. Boelter, ENVIRON International, Chicago, IL.

RT215

Analytical Quality in Laboratories: The Triumvirate of Standard Methods, Proficiency Testing and Reference Materials and Their Roles in Assisting the Generation of High Quality Occupational Hygiene Data

1:30 PM – 5:30 PM

355A

Arranger: O. Butler, Health and Safety Laboratory, Buxton, United Kingdom. **Moderator:** K. Ashley, NIOSH, Cincinnati, OH. **Monitors:** D. Breuer, Y. Giesen, IFA – Institute for Occupational Safety and Health of the Germany Accident Insurance, Sankt Augustin, Germany; M. Latko, AIHA®, Falls Church, VA.

The health of workers in many industries is at risk through exposure to chemicals. To determine the effectiveness of control measures occupational hygienists generally collect exposure samples which are analyzed by a laboratory. A number of tools assist laboratories in demonstrating their quality: the use of appropriate validated consensus standards; participation in proficiency testing schemes and the use of reference materials for calibration and quality control purposes. This aim of this roundtable, is to provide an insight into how such tools are being developed and how

such tools can assist laboratories generate high quality analytical data for hygienists.

- **Development of ASTM & ISO International Standards for Occupational Hygiene Monitoring.** K. Ashley, NIOSH, Cincinnati, OH.
- **Case study: Validation of the Analytical Step: International Collaborative Trial to Generate Required Method Precision Data for ASTM D7439.** K. Ashley, NIOSH, Cincinnati, OH.
- **Case Study: GESTIS Database on Analytical Methods: An Easy Source to Find the Most Suitable Methods for Measuring Hazardous Substances at Workplaces.** D. Breuer, Institute for Occupational Safety and Health of the Germany Accident Insurance, Sankt Augustin, Germany.
- **Round Frequency and Participation Longevity: An Assessment of the Critical Parameters for Determining Proficiency in the Analysis of Occupational Hygiene Samples.** M. Latko, AIHA®, Falls Church, VA.
- **Case Study: Laboratory Proficiency Testing with Sampling – The IFA.** D. Breuer, Institute for Occupational Safety and Health of the Germany Accident Insurance, Sankt Augustin, Germany.
- **Laboratory Reference Materials in the Occupational Hygiene Laboratory: Current Status and Future Needs.** O. Butler, Health and Safety Laboratory, Buxton, United Kingdom.
- **Case Study: Preparation and Characterization of Two New Bulk Welding Fume Reference Materials.** O. Butler, Health and Safety Laboratory, Buxton, United Kingdom.
- **Case Study: Establishment of a Piezo-electric Micro Dosing System for the Production of Reference Materials.** F. Raschick, Institute for Occupational Safety and Health of the German Social Accident Insurance, Sankt Augustin, Germany.

RT216

NIOSH Health Hazard Evaluations: Results of Interesting and Unusual Health Hazard Evaluations

1:30 PM – 5:30 PM

155BC

Arranger: J. Harney, NIOSH, Cincinnati, OH. **Moderator:** R. Niemeier, CDC/NIOSH, Cincinnati, OH. **Monitors:** K. Fent, K. Hanley, NIOSH, Cincinnati, OH.

The National Institute for Occupational Safety and Health (NIOSH) Health Haz-

ard Evaluation (HHE) program provides a mechanism by which employees, unions, and employers can assistance in addressing occupational health concerns. NIOSH industrial hygienists and medical officers often encounter common and unique workplace exposures and health hazards. This roundtable will present the results of several HHEs performed by NIOSH. The overall objective is to provide practicing hygienists with an understanding of how NIOSH develops its strategy for assessing the workplace, the health hazards that were identified and the recommendations we made to reduce or eliminate the hazards and protect employees.

- **Overview of the NIOSH Health Hazard Evaluation (HHE) Program.** J. Harney, NIOSH, Cincinnati, OH.
- **Evaluation of Erionite Exposures to Outdoor Employees in Western States.** C. Beaucham, NIOSH, Cincinnati, OH.
- **Evaluation of Coccidioides Exposures and Coccidioidomycosis Infections among Prison Employees.** G. Burr, NIOSH, Cincinnati, OH.
- **Evaluation of Carbon Monoxide Exposures during Rescue Operations Using Personal Watercraft.** R. McCleery, NIOSH, Cincinnati, OH.
- **Multiple Sclerosis, Chemotherapy Drugs, and Helicopter Exhaust: A Disease Cluster Investigation in an Inpatient Oncology Ward.** J. Couch, NIOSH, Cincinnati, OH.
- **Heat Stress/Strain among Employees Engaged in Strenuous Work Activities in an Extremely Hot Environment.** M. Methner, NIOSH, Cincinnati, OH.
- **Evaluation of Lead and Noise Exposures at a Lead-Acid Battery Recycling Company.** B. King, NIOSH, Cincinnati, OH.
- **HHE Follow-back Activities: What Do Our Customers Say about Us?** S. Ahrenholz, NIOSH, Cincinnati, OH.

CR312

A Practical Approach to World-Class EHS Leading Indicators: Cross-Industry Lessons from the Best of the Best

2:00 PM – 3:00 PM 355B

Presenter: J. Dony, Campbell Institute, Itasca, IL.

The “Holy Grail” or “Silver Bullet” approach to problem-solving is appealing for a reason – who wouldn’t want to be able to use the same solution for every issue that arises? This approach has been proven time and again to be impractical or even

damaging to EHS performance. Research conducted by the Campbell Institute (NSC) has shown that robust leading metrics do share common critical characteristics and can be classified into a taxonomy that helps organizations better conceptualize their implementation, use, and iteration. There are many similarities in the enabling factors that drive the effective use of leading indicators – as well as similarities in the barriers to their implementation. EHS executives and experts from Campbell Institute member organizations have shared practical leading indicator information – from general categories of data collected to specific metrics that have made a profound impact on their EHS performance. This session will provide an overview of the concepts behind this approach, as well as specific metrics and case studies all organizations can put to use.

CR313

Safety Training Games: Let’s Play!

2:00 PM – 3:00 PM 155A

Presenter: J. Klane, Fulton Schools of Engineering (FSE), Arizona State University, Tempe, AZ.

Do you play training games in your safety training? Game playing is a highly effective (and fun) training approach and method. See how games are developed and easily modified, and have fun participating in some games! Each game’s content covers safety training topics. Get a list of descriptions of 25 training games you can use in your next safety training session.

PO119

Exposure Assessment Strategies: Modeling

2:00 PM – 4:00 PM 251ABC

Arranger: C. Simmons, Simmons Environmental OHS, Inc., Chicago, IL. **Moderator:** C. Simmons, Simmons Environmental OHS, Inc., Chicago, IL. **Monitors:** A. Abelman, Cardno ChemRisk, Chicago, IL; A. Lori, Corporate Safety and Industrial Hygiene, 3M, St. Paul, MN.

2:00 PM – 2:20 PM

SR-119-01 A Method for Constructing Informative Priors for Bayesian Modeling of Occupational Hygiene Data. H. Quick, CDC, Atlanta, GA; T. Huynh, G. Ramachandran, University of Minnesota, Minneapolis, MN.

2:20 PM – 2:40 PM

SR-119-02 Predicting Construction Related Silica Exposures Using Input from Chamber and Field Studies. S. Arnold,

G. Ramachandran, SPH Environmental Health Sciences, UMN, Minneapolis, MN.

2:40 PM – 3:00 PM

SR-119-03 Characterization of Chrysotile Asbestos Fiber Removal Rates from Air.

J. Sahmel, H. Avens, P. Scott, A. Burns, C. Barlow, K. Unice, A. Madl, J. Henshaw, D. Paustenbach, Cardno ChemRisk, Boulder, CO.

3:00 PM – 3:20 PM

SR-119-04 Turbulent Eddy Diffusion Models in Exposure Assessment: Determination of the Eddy Diffusion Coefficient.

Y. Shao, G. Ramachandran, S. Arnold, S. Arce, Environmental Health Science, University of Minnesota, Minneapolis, MN.

3:20 PM – 3:40 PM

SR-119-05 Exposure Models: How Accurate Are They? Evaluating Exposure Model Performance under Highly Controlled Conditions. S. Arnold, G. Ramachandran, SPH Environmental Health Sciences, UMN, Minneapolis, MN.

3:40 PM – 4:00 PM

SR-119-06 Exposure Models: How Accurate Are They? Evaluating Exposure Model Performance under Real World Conditions. S. Arnold, G. Ramachandran, SPH Environmental Health Sciences, UMN, Minneapolis, MN.

RT217

Hazardous Drugs: A Closer Look at Aerosols, Surface Sampling and Decontamination

2:00 PM – 4:30 PM 250DEF

Arranger: S. Carry, Kaiser Permanente, Oakland, CA. **Moderator:** J. Martinelli, Forensic Analytical Consulting Services, Citrus Heights, CA. **Monitors:** M. Zock, FedEx Ground, Moon Township, PA; M. Jones, Iowa City VA Health Care System, Iowa City, IA.

Worker exposure to hazardous drugs has been a recognized health concern for more than a decade, yet measuring exposure still remains a challenge. This session will explore the issues that plague safety professionals such as understanding exposure potential to aerosolized drugs, decontamination of hoods, and the perplexing world of conducting wipe samples and setting acceptable surface limits.

- **Pharmaceutical Dust Exposure during Oral Dose Preparation.** T. Connor, NIOSH, Cincinnati, OH.
- **Aerosolized Chemotherapy Case Study: Exposure Assessment and Controls.** J. Rice, Intermountain Healthcare, Salt Lake City, UT.

Technical Sessions TUESDAY, JUNE 2

TUESDAY TECHNICAL SESSIONS

- **Establishing Acceptable Surface Levels (ASLs) for Antineoplastics and Other Hazardous Drugs.** R. Sussman, Safe-Bridge Consultants, Inc., New York, NY.
- **Hazardous Drugs: The Wipe Sample Conundrum.** T. Connor, NIOSH, Cincinnati, OH.
- **Hazardous Drug Decontamination Case Study: Is It Effective or Valuable?** M. Wachala, Dana Farber Cancer Institute, Boston, MA.

RT218

Computational Fluid Dynamics in Industrial Hygiene: Applications for Exposure Assessment and Control

2:00 PM – 4:30 PM 355D

Arranger: K. Dunn, NIOSH, Cincinnati, OH. **Moderator:** R. Hall, NIOSH, Cincinnati, OH. **Monitors:** J. Couch, NIOSH, Cincinnati, OH; M. Larrañaga, Oklahoma State University, Stillwater, OK.

Computational fluid dynamics (CFD) has seen wide application for solving aerodynamic design engineering problems. It has seen limited use for calculating gas and particle transport relevant to industrial hygiene. With new developments in software, CFD is becoming a powerful tool for understanding air and contaminant transport within the work environment. This roundtable introduces the current state-of-science of CFD for industrial hygiene applications, assessing personal exposures to particles, optimizing sampler design and performance, evaluating engineering controls, conducting exposure characterization and its strengths and weaknesses.

- **Computational Fluid Dynamics: Can it Truly Benefit the Industrial Hygienist or is it Just Colorful Fluid Dynamics?** C. Strode, D. Hall, R. Strode, J. Rasmuson, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO.
- **Using CFD to Understand Large Particle Inhalability.** T. Anthony, University of Iowa, Iowa City, IA.
- **Optimization of Aerosol Sampler Geometries Using CFD Process Automation.** A. Bird, CD-adapco, Northville, MI.
- **Assessing Containment Performance of Fume Hoods for Nanomaterials.** K. Dunn, NIOSH, Cincinnati, OH.
- **Challenges Faced When Using Computational Fluid Dynamics to Estimate Bystander Exposure Factors in Retrospective Exposure Characterization.** D. Hall, C. Strode, J. Rasmuson, R. Strode, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO.

RT219

Industrial Hygiene and Safety in Non-traditional Industries

2:00 PM – 5:00 PM 250ABC

Arranger: C. Hanko, Honeywell International, Phoenix, AZ. **Moderator:** B. Simmons, Cardno ChemRisk, San Francisco, CA. **Monitors:** S. Rodriguez, U.S. Army Public Health Command, Ft. Sam Houston, TX.

As safety and industrial hygiene professionals know, hazards exist in every industry and occupation. Do non-traditional work environments face the same set of challenges or hazards found in industry? The purpose of this roundtable is to learn about the hazards safety and IH professionals try to control in non-traditional settings, using movie sets, wineries, hotels/casinos, and historical government buildings as examples.

- **Industrial Hygiene Practice in the Insurance Industry.** A. DeGuzman, Liberty Mutual Insurance Company, Woodbridge, VA.
- **Lights! Camera! Action! Motion Picture Opportunities in the Environmental and Safety Fields (Aka How Do You Teach Ergonomics to a Stunt Double and Fire Prevention to a Special Effects Artist?)** M. Buckalew, ERM, Atlanta, GA.
- **Domestic and International Safety Auditing of Live Broadcasts/Developing IH & Safety Standards for Live Events.** C. Merrifield, ERM, Melville, NY.
- **Industrial Hygiene for the Architect of the Capitol.** T. Paz, Architect of the Capitol, Alexandria, VA.
- **Industrial Hygiene at a Winery.** M. Terrell, E & J Gallo Winery, Modesto, CA.
- **A Tale of Two Careers.** S. Thomas, Honeywell International, Phoenix, AZ.

RT220

Vibration: the Forgotten Risk Factor

2:00 PM – 5:00 PM 355C

Arranger: S. Gibson, Ergonomics Applications, Salem, SC. **Moderator:** S. Gibson, Ergonomics Applications, Salem, SC. **Monitors:** M. Werrell, Ergoworks Consulting, Gaithersburg, MD; M. Schiering, Sherwin Williams, Cleveland, OH.

When evaluating jobs or tasks for their potential to contribute to musculoskeletal disorders, the tendency is to focus on the risk factors of forced, awkward postures and repetition; often overlooking vibration. But hand-arm vibration (HAV) and whole-

body vibration (WBV) exposure are linked to many musculoskeletal disorders. This roundtable will cover the basics of both HAV and WBV, their potential for injury, how sampling has evolved, their organizations' approaches to the problem, and how control measures can be justified economically.

- **The Evolution of Vibration Sampling.** R. Brauch, Casella CEL Inc., Williamsville, NY.
- **Whole-Body Vibration and Mining.** M. Felton, Golder Associates Ltd., Sudbury, ON, Canada.
- **Foot-Transmitted Vibration in Mining.** M. Felton, Golder Associates Ltd., Sudbury, ON, Canada.
- **OSHA and Vibration.** B. Besser, USDOL, Sandy, UT.
- **Can the Solution Be as Simple as Nutrition?** S. Lawrence, Private Practice, Lewes, DE.
- **Justification for Vibration Monitoring & Controls.** G. Popov, UCM, Overland Park, KS.

RT221

Total Worker Health in Construction

2:00 PM – 5:00 PM 251DEF

Arranger: J. Ellis, ENVIRON, Princeton, NJ. **Moderator:** J. Skrabak, Marshfield, MA. **Monitors:** S. Smith, New Mexico VA Health Care System; J. McInnis, Boilermakers International, Fall River, NS, Canada.

The idea of Total Worker Health has been a model for many industries and businesses worldwide. Can this framework be implemented into a challenging environment like a construction site where the primary focus is safety? This panel will present topics related to the Total Health of the construction worker and present these challenges and offer real solutions to take back to these sites.

- **Occupational Exposure Limits and the Healthy Worker Effect: Relevant for the Construction Worker?** R. Adams, ENVIRON International Corp., Hamilton Square, NJ.
- **The Value of Employee Stretching Programs in Construction.** M. Turina, ErgoSmart, McKees Rocks, PA.
- **Total Worker Health: An Integrative Approach for Health and Wellbeing of Workers in the Construction Industry.** A. Childress, NIOSH, Atlanta, GA.

- **Total Worker Health in Construction: A Union Approach.** S. Schneider, J. Becker, Laborers' Health & Safety Fund of, Washington, DC.
- **The Effect of Obesity on Worker Health & Safety in the Construction Industry.** F. Kohanna, AllOne Health Resources, Woburn, MA.
- **The Construction Industry and Smoking: Issues and Solutions.** J. Ellis, ENVIRON, Princeton, NJ.

RT222

Hack Hack: Who's There?

2:00 PM – 5:00 PM

355E

Moderator: L. Bridges, Total Safety US, Inc., Houston, TX. **Monitors:** C. Metzler, BP, Seadrift, TX; K. Diep, American Airlines, Fort Worth, TX.

The increased use of apps, mobile technology and cloud storage are changing how we conduct our business, communicate, and manage our sensitive data. These work solutions have varying implications for risking data security and privacy. The consequences of being hacked can be catastrophic. This session will explore who is behind these attacks, delve into some case studies, and focus on solutions to adequately protect sensitive EHS information.

- **Hacking EH&S: Evolving Technologies to Present New Security Threats.** D. Calhoun, Affygit Solutions, Broomfield, CO.
- **Smart Device Security: There's a Hack for That.** M. Rollins, Apps for EHS, Brooklyn, CT.
- **Mobile Devices Can Change Everything.** L. Neely, Lawrence Livermore National Laboratory, Livermore, CA.
- **Data Privacy Legislation and Impacts for Occupational Health Information Systems.** M. Melkonian, Medgate, Bend, OR.
- **My Data is in the Cloud: Need I Worry?** D. Hornsby, Gensuite LLC, Mason, OH.
- **This is a Disaster? Impacts of Data Disruption: A Medical Decision Model as a Cure!** J. Koerner, US Dept. of Health and Human Services, Washington, D.C.

RT223

OEHS Management Skills for the 21st Century

2:00 PM – 5:00 PM

355F

Arranger: D. Downs, EHS Management Partners, Shorewood, MN. **Moderator:** D. Downs, EHS Management Partners, Shorewood, MN. **Monitors:** W. Odden, US

Air Force, Minneapolis; S. Skipper, BAE Systems, Minneapolis.

**There will be an interactive panel discussion for the last thirty minutes of this roundtable.*

The AIHA® Management Committee has been involved in helping to define the types of management skills needed by OEHS professionals who are given the opportunity to lead a program at corporate or other management setting. Academic training has generally not included those management skills needed in a management position. The purpose of this roundtable is to present the five key areas currently identified as required OEHS management skills and provide a more focused discussion of at least one of the sub-areas within each category.

- **How Does the Industrial Hygienist Become a Major Player in Leading Organizational Change, Strategic Thinking, and Vision?** D. Downs, EHS Management Partners, Shorewood, MN.
- **Leading People.** D. Wynn, Washington, D.C.
- **Leading Change through an Organization: Maximizing Management Leadership Using Management Systems.** P. Esposito, STAR, Arnold, MD.
- **Thrive: How National Environmental, Health and Safety Supports Health Care.** E. Stewart, Kaiser Permanente, Oakland, CA.
- **EHS Benchmarking Methods for Small Organizations.** W. Weems, University of Alabama, Birmingham, AL.

RT224

Industrial Hygiene and Occupational Health in Mining

2:00 PM – 5:30 PM

155D

Arranger: T. Hethmon, University of Utah, Sandy, UT. **Moderator:** R. Glenn, Glenn Consulting Group, Johns Island, VA. **Monitors:** R. Reed, University of Arizona, Tucson, AZ; M. Call, Industrial Hygiene Resources, Boise, ID.

Mining remains an economically critical industry providing non-organic raw materials that feeds virtually all other industries. While much progress has been made to identify, assess, and health hazards, the maturity of mining-related industrial hygiene and occupational health systems generally lack parity with other industries. This roundtable will provide a cross-sectional status report on a number of strategically important variables and indicators of industry-wide industrial hygiene and occupational practice and performance.

- **Status of the Occupational Health of U.S. Miners.** E. Storey, NIOSH, Morgantown, WV.
- **Regulatory Perspective on Exposure Assessment in the U.S. Mining Industry.** G. Meikle, U.S. Mine Safety and Health Administration, Arlington, VA.
- **Historical Perspectives: Is the Industry Improving?** R. Wheeler, Industrial Env. Health Consultants, Ltd., Star City, WV.
- **Perspectives from a Multinational Mining Company.** A. Tarab, Newmont Mining Corporation, Denver, CO.
- **Status of Graduate School IH Programs in Relations to Contemporary IH Issues in the U.S. Mining Industry.** R. Larson, University of Utah, Salt Lake City, UT.
- **The Industrial Hygiene Consultant's Role and Perspective in the Mining Industry.** H. Beaulieu, Industrial Hygiene Resources, Boise, ID.
- **Status of U.S. Mining Industrial Hygiene Research.** J. Joy, NIOSH, Pittsburgh, PA.

ILO6

Ignite: Enlighten Me but Make it Quick! Offering Enlightenment and Knowledge – In a Hurry!

2:30 PM – 4:00 PM

255ABC

Moderator: D. Roskelley, R&R Environmental, Inc., Sandy, UT. **Arranger/Monitor:** C. Tobin, AIHA, Falls Church, VA.

The IGNITE session originated in the high-technology profession but has spread worldwide. In a five-minute presentation, speakers share their professional and personal passions using 20 slides that auto advance every 15 seconds. AIHce is offering its own version of IGNITE. Learn what is on the mind of your colleagues and friends in this innovative and engaging new format. Find out why this program has become an international phenomenon and why there is always a standing-room only crowd at AIHce! Experience first-hand what is meant by the IGNITE motto, "Enlighten us, but make it quick!"

- **Innovate Yourself to New Heights.** E. Shaw, Panama, Panama
- **Sustainability: For Everyone Sick and Tired of the Word!** J. Mann, Green Futures Unlimited, San Diego, CA.
- **Twenty Years of Memories and IH Work at a Major University.** P. Moser, Indiana University, Bloomington, IN.
- **The Future of IH Engineering.** J. Burton, IVE, Inc., Salt Lake City, UT.



Technical Sessions TUESDAY, JUNE 2

TUESDAY TECHNICAL SESSIONS

- **A Risk Assessment Failure: How I Accidentally Stole a Car.** K. Eganhouse, Deer Park, TX.
- **Industrial Hygiene for the 21st Century: Revealing the Invisible.** M. O'Reilly, SUNY School of Public Health, Albany, NY.
- **Failure is the ONLY Option...To Success.** M. Cheszek, Chicago, IL.
- **A Puerto Rican IH Pursuing a Dream!** L. Alvarado, Bayer Material Science, Beaver, PA.
- **Keeping Bangladesh Garment Workers Alive, Safe and Sound.** G. Brown, Maquiladora Health & Safety Support Network, El Cerrito, CA.
- **Forty Years of Being an IH "Superstar."** D. Weekes, InAIR Environmental, Ltd., Ottawa, ON, Canada.
- **Workplace Health without Borders.** M. Levitsky, Toronto, ON, Canada.
- **Antenna Petting Zoo and Travelogue.** A. Butler, Butler Health and Safety, San Pedro, CA.
- **Moderation in Everything (including Moderation)!** J. Klane, Arizona State University, Tempe, AZ.
- **Pleasures of My Working Dogs.** A. O'Donnell, HSST Conseils, Inc., Montreal, QC, Canada.
- **The Bright Spot in the (Open) Palm of my Hand!** K. Kelley, University of Maryland, College Park, MD.
- **It's Cool to be a CIH Because....."** ABIH Board Members, Lansing, MI.

CR314

Ethics for the EHS Professional

3:30 PM – 4:30 PM

355B

Presenter: R. Agnew, Fire Protection & Safety Eng. Tech., Oklahoma State University, Stillwater, OK.

This crossover session will cover the foundational principles of ethics, how ethics relate to morality, and how ethics and morality are applied in the EHS profession. Several case studies will be presented and interactive audience participation will

be facilitated through the use of smart-phones and online polling. Participants will gain the knowledge to describe ethics, relate ethics to morality, and make ethical decisions.

CR315

Combustible Dust Hazard Identification and Control: NFPA Standards Overview

3:30 PM – 4:30 PM

155A

Presenter: G. Colonna, NFPA, Quincy, MA.

A decade ago, three fatal incidents at industrial facilities triggered concern among safety and loss control professionals regarding the hazards associated with combustible dusts. For over 90 years, NFPA standards have provided a fundamental approach to identifying and controlling those hazards. Today's standards rely on the same three elements to safeguard workers at facilities where dust hazards can be present.

AIHA

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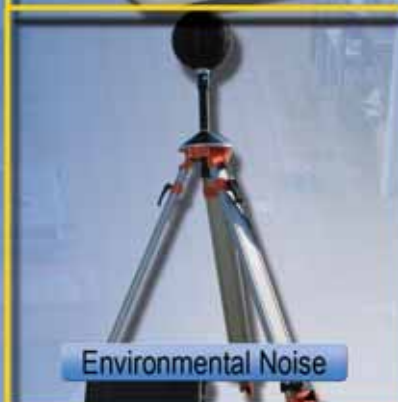
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Wednesday At-a-Glance

Wednesday, June 3

7:30 AM – 4:00 PM

Registration, *SPCC, South Foyer*

7:30 AM – 6:30 PM

Speaker Ready Room, *254A/B*

7:00 AM – 9:00 AM

Mark of Excellence Breakfast



John Howard, MD, MPH,
JD, LLM Director, National
Institute for Occupational
Safety and Health

*(This event is taking place
in lieu of the Wednesday
morning General Session*

*and is included in your registration, but pre-
registration is required.) SPCC, Grand Ballroom C-J*



9:00 AM – 1:30 PM

Expo

Passport to Prizes, Lounges, Expo Learning Pavilions,
Special Displays, Concessions

SPCC, Exhibit Halls C/D/E

Poster Sessions

SPCC, Exhibit Halls C/D/E

PS 405 Authors Present 10:00 a.m. – Noon

Student Poster Awards 12:30 p.m. – 1:00 p.m.

9:00 AM – 4:00 PM

CareerAdvantage Development Fair 2015,

SPCC, Grand Ballroom B

Volunteer Red Carpet Club, *SPCC, Grand Ballroom A*

10:00 AM – 11:00 AM

- CR316 – Taking Process Safety to the Next Level: Organizational Culture and Organizational Capability, *SPCC, 155D*
- CR317 – The Hazards of Tower Safety: What an Industrial Hygienist Should Know About the Hazards and Controls Required to Ensure Safety for Workers on These Ubiquitous Systems of Complex Hazards, *SPCC, 355B*

10:00 AM – Noon

- IL07 – The Un-Session, *SPCC, 254C*
- P0120 – Aerosols II, *SPCC, 255E*
- P0121 – Biological Monitoring, *SPCC, 255F*
- P0122 – Nanotechnology: New Developments in Exposure Assessment, Sampling Technology, and Respirator Protection, *SPCC, 155 B/C*
- P0123 – Real-Time Detection Systems, *SPCC, 355C*
- P0124 – Risk Modeling Tools in the Current and Future Toolkit, *SPCC, 155A*
- RT225 – Control Banding Applications in Laboratory Operations, *SPCC, 355E*
- RT226 – Managing Fall Protection Programs for Optimal Safety and Efficiency, *SPCC, 251 D/E/F*
- RT227 – Occupational Hygiene and Safety in Africa, *SPCC, 251 A/B/C*
- SP09 – Bayesian and Professional Judgment Users Group, *SPCC, 257 (Pre-registration required)*

10:00 AM – 12:20 PM

- P0125 – PPE Related, *SPCC, 255D*
- P0126 – Environmental and International EH&S Issues, *SPCC, 355F*

10:00 AM – 12:30 PM

- RT228 – Recognition, Evaluation and Control of Legionella in Building Water Systems, *SPCC, 155 E/F*

11:00 AM – Noon

- CR318 – Industrial Ecology, *SPCC, 355A*
- CR319 – What's New in Confined Space Entry: A Look at the NFPA 350 Guide for Safe Confined Space Entry and Work, *SPCC, 355D*

Noon – 1:00 PM

- IL08 – Global Industrial/Occupational Hygiene Issues Table Topic Discussions, *SPCC, Exhibit Halls C/D/E*

12:30 PM – 1:30 PM

- SP10 – Donald E. Cummings Award Lecture: Using Isometric Particles and Fibers in Lung Tissue of Workers as Complementary Analysis to Improve Knowledge and Understand Workers' Exposure, *SPCC, 155D*

12:30 PM – 4:00 PM

Product Stewardship Society Board Meeting
(by invitation), *Marriott (HQ), Solitude*

1:00 PM – 2:00 PM

- CR320 – Why Incident Management Matters, *SPCC, 155A*

1:00 PM – 3:30 PM

- RT229 – Quantifying Dermal Exposure: Comparisons of Sampling Methods to Assessment Models, *SPCC, 155 E/F*
- RT230 – Radiation Safety in the Oil and Gas Industry, *SPCC, 255E*
- SS003 – Physical Risk Factors and Musculoskeletal Disorders: A Review of Findings from the NIOSH Field-Based Studies, *SPCC, 255F*

1:00 PM – 4:00 PM

- RT231 – Notable Confined Space Events and Issues, *SPCC, 355B*

1:00 PM – 4:30 PM

- RT232 – Ethics in Healthcare, *SPCC, 355C*
- RT233 – Improving Safety Culture Through Lessons Learned, *SPCC, 355E*
- RT234 – New Developments in Sampling and Analysis of Workplace Chemical Exposures, *SPCC, 251 D/E/F*
- RT235 – Occupational Hygiene in Agriculture – Exposure Controls, *SPCC, 255D*
- RT236 – Toxicological Challenges to the Derivation and Application of Occupational Exposure Limits, *SPCC, 155 B/C*

1:00 PM – 5:00 PM

- P0127 – IH General Practice II, *SPCC, 355A*
- RT237 – Mock Trial: Industrial Hygiene Expert Witness Testimony in Deposition and Trial, *SPCC, 251 A/B/C*
- RT238 – Perspectives on Preparation for the CIH Exam v10.0, *SPCC, 250 D/E/F*

2:30 PM – 3:30 PM

- CR321 – Airplane Bird Strike Analysis Risk Assessment, Integrating Bow-Tie Analysis, *SPCC, 155A*

2:30 PM – 5:00 PM

- SP11 – AIHce Movie Matinee, *SPCC, 255 B/C*

5:30 PM – 6:30 PM

- CR322 – Safety Leadership and Engagement: Why It's Important and How to Do It, *SPCC, 155A*

5:30 PM – 7:30 PM

- RT239 – Electronic Cigarettes in the Indoor Environment, *SPCC, 155 B/C*
- RT240 – The "Environmental Hat": The Role of the Industrial Hygienist in Environmental Projects, *SPCC, 255E*

AIHA

9:30 AM – 11:00 AM

Past President's Forum (by invitation), *Marriott (HQ), Grand Ballroom A*

10:30 AM – 12:30 PM

Computer Applications Committee Meeting, *Marriott (HQ), Grand Ballroom B/C*

Environmental SIG Meeting, *Hilton, Canyon A*

Hazard Prevention & Engineering Controls Committee Meeting, *Marriott (HQ), Grand Ballroom E*

Ionizing Radiation Committee Meeting, *Marriott (HQ), Grand Ballroom G*

Students & Early Career Professionals Committee Meeting, *Marriott (HQ), Grand Ballroom D*

11:00 AM – 12:00 PM

Violet Council Meeting, *Hilton, Canyon B*

Volunteer Orientation, *Hilton, Canyon C*

12:15 PM – 1:30 PM

Volunteer Officer Training Session (by invitation), *Marriott (HQ), Grand Ballroom H/I*

12:30 PM – 4:00 PM

Product Stewardship Society Board Meeting (by invitation), *Marriott (HQ), Solitude*

2:00 PM – 3:00 PM

Local Sections Officer Training Session (by invitation), *Hilton, Canyon C*

2:00 PM – 4:00 PM

Academic SIG Meeting, *Marriott (HQ), Alta/Snowbird/Brighton*

Communication & Training Methods Committee Meeting, *Marriott (HQ), Park City*

Consultants SIG Meeting, *Marriott (HQ), Cottonwood*

2:30 PM – 4:30 PM

Management Committee Meeting, *Marriott (HQ), Grand Ballroom G*

4:00 PM – 6:00 PM

Fellows SIG Meeting, *Marriott (HQ), Grand Ballroom F*

Permanent Conference Committee Meeting, *SPCC, 258*

5:00 PM – 7:00 PM

Career & Employment Services Committee Meeting, *Marriott (HQ), Park City*

Laboratory Health & Safety Committee Meeting, *Marriott (HQ), Deer Valley*

6:30 PM – 8:00 PM

President's Reception (by invitation), *Marriott (HQ), Grand Ballroom A-E*

7:00 PM – 9:00 PM

Joint Industrial Hygiene Ethics Education Committee Meeting, *Marriott (HQ), Solitude*

Ancillary

8:00 AM – 9:30 AM

Pharmaceutical Round Robin Committee, *Marriott (HQ), Solitude*

1:00 PM – 3:30 PM

Workplace Health Without Borders Meeting, *Marriott (HQ), Grand Ballroom D*

1:00 PM – 5:00 PM

Annual Pharma Forum (by invitation), *Marriott (CC), Capitol A*

1:30 PM – 5:00 PM

Forest Products Industry IH Forum, *Marriott (HQ), Grand Ballroom J*

3:00 PM – 6:00 PM

AAR IH Forum, *Hilton, Canyon A/B*

5:00 PM – 7:00 PM

Annual Pharma Forum Reception (by invitation), *Marriott (CC), Capitol B*

6:00 PM – 8:00 PM

University of South Florida Reception, *Martine Café, 22 East 100 South*



Don't be this guy.

Don't forget – the **Mark of Excellence Awards Breakfast**, featuring special guest John Howard, MD, MPH, JD, LLM, is taking place in lieu of the former Wednesday General Session.

Wednesday, June 3 | 7:00 AM – 9:00 AM | SPCC, Grand Ballroom C-J | *Pre-registration required

Wednesday, June 3

Technical Sessions

Mark of Excellence Breakfast

7:00 A.M.-9:00 A.M. GRAND BALLROOM C-J



Featuring Special Guest: John Howard, MD, MPH, JD, LLM
Director, National Institute for Occupational Safety and Health

(This event is taking place in lieu of the Wednesday morning General Session and is included in your registration, but pre-registration is required.)

The Mark of Excellence Breakfast is a celebration of the extraordinary contributions made by members and the volunteer community to the industry and the profession.

This signature event will feature entertainment, awards, networking, and a delicious breakfast buffet. Connect with leading and emerging industry trailblazers, pay tribute to those whose exemplary dedication to the industry and the profession has made a positive and lasting impact, capitalize on engaging your professional peers—exchange ideas, insights, and solutions, and renew your excitement about industrial hygiene! You won't want to miss this prestigious and fun-filled event.

2015 **MARK of EXCELLENCE AWARDS**

WEDNESDAY TECHNICAL SESSIONS

CR316

Taking Process Safety to the Next Level: Organizational Culture and Organizational Capability

10:00 AM – 11:00 AM 155D

Presenter: E. Gwilt, BST, Ojai, CA.

Risk management, asset integrity, incident response and other critical elements of Process Safety Management models can be seen as critically inter-related to the elements of Organizational Culture and Capability. The integration of aspects of PSM with these inter-dependencies determines their effectiveness and sustainability. This talk outlines a new approach in addressing and measuring effectiveness in reliability of PSM through the lens of organizational culture, and outlines a methodology to understand strengths and weaknesses in these areas to avoid process safety incidents.

CR317

The Hazards of Tower Safety: What an Industrial Hygienist Should Know About the Hazards and Controls Required to Ensure Safety for Workers on These Ubiquitous Systems of Complex Hazards

10:00 AM – 11:00 AM 355B

Presenter: T. Fuller, Health Sciences, Illinois State University, Bloomington, IL.

The worker/fatality ratios in the tower climbing industry make it one of the most dangerous occupations in the world.

Besides falls, tower workers are exposed to falling debris, equipment failure, electrocution, structure collapse, nonionizing radiation and extreme weather conditions. Regulatory, technical, and programmatic shortcomings which make this occupation so hazardous will be described. Recommendations for improvements in tower safety methods, controls, equipment, and regulation will be presented. Tower worker safety approaches in the U.S. will also be contrasted with other international systems and respective outcomes to identify additional possible areas for improvement in the U.S.

ILO7

The Un-Session

10:00 AM - NOON 254C

An innovative way to connect, share, explore and brainstorm solutions to everyday challenges.

Arranger: C. Hovde, Caterpillar, Peoria, IL

Not for those who like a passive learning experience with a traditional lecture approach, *UnSessions* are designed to create interactivity, intimacy and free-flow of ideas that traditional sessions frequently leave wanting. *UnSessions* are flexible, spontaneous and participant-driven:

- Session content can start coming together through online interaction
- Participants build the session agenda on-site with facilitator assistance
- Anyone interested in solving a problem has the opportunity to tackle it with others

- A variety of formats can be used in the Unsession once the content has been decided.

Discussion Focus Areas:

Combustible Dust and OSHA Rulemaking

Discussion leader: G. Colonna, National Fire Protection Association, Quincy, MA

Scenario 1: OSHA's Combustible Dust rulemaking has been delayed by several years. What standards should be used in the meantime? NFPA has a new dust document coming out. Will OSHA modify the compliance directive to include the new document? What will happen with the National Emphasis Program on Dust?

BYOEI (Bring Your Own Emerging Issue!)

We often find ourselves trying to risk assess a brand new hazard about which very little is known. Where do you start? How do you compare the measurements? What are the practical and reasonable controls? Bring your challenges to the group and discuss/hear practical approaches with the participants.

PO120

Aerosols II

10:00 AM – NOON 255E

Arranger: M. Murphy, 3M, St. Paul, MN.

10:00 AM – 10:20 AM

SR-120-01 Characterization of Aerosol Emission from the Burst of a Single Bubble. W. Ke, J. Lai, S. Huang, C. Chen, Department of Public Health, National Taiwan University, Taipei, Taiwan; Y. Kuo, Chung Hwa University of Medical Technology, Tainan, Taiwan.

10:20 AM – 10:40 AM

SR-120-02 Particulate Matter Exposure in a Police Station Located Near a Highway. C. Hsu, P. Tsai, M. Lin, National Cheng Kung University, Tainan, Taiwan; Y. Chen, National Health Research Institutes, Miaoli County, Taiwan; C. Wang, National Sun Yat-Sen University, Kaohsiung, Taiwan.

10:40 AM – 11:00 AM

SR-120-03 Assessing Respirator Use and Particulate Matter Exposure in Aluminum Manufacturing Facilities. S. Liu, UC Berkeley, Berkeley, CA.

11:00 AM – 11:20 AM

SR-120-04 Estimation of Airborne Subtilisins Concentrations Using Real-Time Portable Aerosol Monitoring Instruments. L. Pahlér, R. Larson, D. Sleeth, DFPM, University of Utah, Salt Lake City, UT.

11:20 AM – 11:40 AM

SR-120-05 Occupational Exposures to Diesel and Alternative Fuel Emissions in Underground Mining – A Simulated Pilot Study. E. Lutz, R. Reed, V. Lee, Community, Environment, and Policy, University of Arizona, Tucson, AZ.

11:40 AM – Noon

SR-120-06 Characterization of Metal Fume Emitted from Stainless Steel Plasma Cutting. J. Wang, T. Hoang, E. Floyd, Occupational & Environmental Health, University of Oklahoma Health Sciences Center, Oklahoma City, OK.

PO121**Biological Monitoring****10:00 AM – Noon****255F**

Arranger: C. Elish, Euless, TX. **Moderator:** C. Elish, Euless, TX. **Monitors:** D. Napier, DNA Industrial Hygiene, Manhattan Beach, CA; C. Metzler, BP, Seadrift, TX.

10:00 AM – 10:20 AM

CS-121-01 Regulatory, Legal, and Analytical Considerations for Assessing Consumer Risk from Titanium Dioxide in Personal Care Products. J. Persky, ENVIRON International Corp., Chicago, IL; L. Haroun, ENVIRON International Corp., Emeryville, CA.

10:20 AM – 10:40 AM

SR-121-02 Measuring Broad Relationships across Mining Citation and Injury Data from 1983–2012. R. Reed, M. Savit, E. Lutz, Mining Safety and Health Program, University of Arizona, Tucson, AZ.

Exhibitor Product Demos and Presentations**9:00 A.M. – 1:00 P.M., EXPO LEARNING PAVILIONS 1 & 2, EXPO HALL****9:00 A.M. – 9:30 A.M.****Increase Inspection Completion Rates with Easy-to-Use Software***Remedy Interactive*

Expo Learning Pavilion 1

Getting employees to participate in audits and inspections can be a huge barrier to safety. Remedy Interactive's new Audits and Inspections Software provides an easy-to-use system that will not only maximize participation in audits and inspections, but also track the completion of corrective actions to ensure compliance and risk reduction.

9:00 A.M. – 9:30 A.M.**Preventing and Reducing Soft Tissue Injuries in the Workplace***ART Corporate Solutions, Inc.*

Expo Learning Pavilion 2

Soft tissue injuries have become a major cause of OSHA recordables and work comp claims across a wide range of industrial and manufacturing companies. Learn the underlying causes of soft tissue injuries, the effect on the employee and the employer, and the solution.

9:30 A.M. – 10:00 A.M.**A Hands-On Demonstration of a Personal Wearable Ultrafine Particle (UFP) Sensor for Use in Occupational and Environmental Settings***Terracon Consultants Inc.*

Expo Learning Pavilion 2

The presentation will demonstrate ease of operations and capabilities of the En-mont personal ultrafine particle (PUFP) C100 to accurately count UFP/cc during normal and rigorous physical activity. The demonstration will show how these data are stored and geospatially tagged through a built-in GPS and linked to powerful user interface software.

NOON – 12:30 P.M.**Integrated Safety Management Software: Better Insights, Better Results***Remedy Interactive*

Expo Learning Pavilion 1

This presentation will demonstrate the functionality of our integrated safety management software system, which centralizes the management of JHA, incident management, audits & inspections and general safety tasks into a single system. Attendees will learn the benefit of program integration – powerful insights into resource efficiency, control prioritization, and risk reduction.

NOON – 12:30 P.M.**Airchek Touch Sample Pump with Touch Screen Navigation***SKC Inc.*

Expo Learning Pavilion 2

SKC is pleased to announce the new Airchek Touch, the first pump with color touch screen navigation. Operation is so intuitive, users won't need an instruction manual. Programming is easy using the touch screen or PC. Lithium-ion batteries offer supercharged power for long run times and flows to 5 L/min.

12:30 P.M. – 1:00 P.M.**Dangerous Territory: Carbon Dioxide in the Workplace***Sper Scientific*

Expo Learning Pavilion 1

The dangers of Carbon Dioxide in the workplace range from the inability to concentrate to even death in extreme cases. Potential causes and how to properly measure the CO2 levels, as well as remedies that can be applied to this dangerous gas will be covered in this presentation.

Technical Sessions WEDNESDAY, JUNE 3

10:40 AM – 11:00 AM

SR-121-03 Heat Index and Adjusted Temperature as Surrogates for Wet Bulb Globe Temperature to Screen for Occupational Heat Stress. T. Bernard, I. Iheanacho, College of Public Health, University of South Florida, Tampa, FL.

11:00 AM – 11:20 AM

SR-121-04 Piloting Infrared Technologies for Measuring Body Temperature in High School Football Players. R. Reed, O. Quiroz, E. Lutz, Mining Safety and Health Program, University of Arizona, Tucson, AZ.

11:20 AM – 11:40 AM

CS-121-05 Chemical Sensitizer Sampling and Exposure Control Strategies. T. Morris, Morris Innovative IH & Safety Solutions, Cincinnati, OH.

11:40 AM – Noon

SR-121-06 Evaluation of a Button Inhalable Sampler with a Grimm Monitor to Determine Air Concentrations of Subtilisin. J. Cross, CBI Federal Services, Clifton Park, NY.

PO122

Nanotechnology: New Developments in Exposure Assessment, Sampling Technology, and Respirator Protection

10:00 AM – Noon

155BC

Arranger: J. Dimitri, IBM, Yorktown Heights, NY. **Moderator:** J. Dimitri, IBM, Yorktown Heights, NY. **Monitors:** M. Shepard, University of Albany, Schenectady, NY; P. Webb, Colden, Worcester, MA.

10:00 AM – 10:20 AM

CS-122-01 Refinement of the Nanomaterial Emission Assessment Technique into the Nanomaterial Exposure Assessment Technique (NEAT 2.0). L. Hodson, K. Dunn, A. Eastlake, C. Beaucham, K. Martinez, M. Dahm, C. Sparks, C. Geraci, NTRC/HETAB, NIOSH, Cincinnati, OH.

10:20 AM – 10:40 AM

SR-122-02 Characterization of Nanoparticles Generated from Synthesizing Advanced Materials. S. Tsai, J. Beltz, A. Dysart, V. Pol, Purdue University, West Lafayette, IN.

10:40 AM – 11:00 AM

SR-122-03 Exposure Associated with Personal Protective Clothing Contaminated with Nanoparticles. S. Tsai, X. Huang, C. Han, Purdue University, West Lafayette, IN.

11:00 AM – 11:20 AM

SR-122-04 Evaluation of Self-Supporting, Single-Walled Carbon Nano-

tube Bucky Paper Sorbents for the Application in Diffusive Sampling and Photothermal Desorption. E. Floyd, Occupational and Environmental Health, OUHSC, Oklahoma City, OK; C. Lungu, J. Oh, M. Saina, UAB, Birmingham, AL.

11:20 AM – 11:40 AM

SR-122-05 Comparison of Simulated Workplace Protection Factors Offered by N95 and P100 Air-Purifying Respirators against Particles of 10 to 400 nm. X. He, Industrial and Management Systems Engineering, West Virginia University, Morgantown, WV; Z. Zhuang, E. Vo, M. Bergman, M. Horvatin, NIOSH/NPPTL, Pittsburgh, PA.

11:40 AM – Noon

SR-122-06 Simulated Workplace Protection Factors Offered by N95 and P100 Air-Purifying Respirators against Submicron Particles. Z. Zhuang, E. Vo, M. Bergman, NIOSH, Pittsburgh, PA; X. He, West Virginia University, Morgantown, WV; M. Horvatin, URS, Inc., Pittsburgh, PA.

PO123

Real-Time Detection Systems

10:00 AM – Noon

355C

Arrangers: W. Groves, Energy and Mineral Engineering, Penn State University, University Park, PA; P. Smith, U.S. Department of Labor – OSHA, Sandy, UT. **Moderator:** T. Pearce, OSHA, Edmond, OK. **Monitor:** L. Monteith, Environmental and Occupational Health Sciences, University of Washington, Seattle, WA.

10:00 AM – 10:20 AM

CS-123-01 NIOSH Center for Direct Reading and Sensor Technologies: Enabling a New Era of Safety, Health, Well-being, and Productivity. D. DeBord, NIOSH, Cincinnati, OH; M. Hoover, Morgantown, WV.

10:20 AM – 10:40 AM

SR-123-02 Field-portable Fourier Transform Infrared (FTIR) Spectroscopy for the Measurement of 1-bromopropane Concentrations in Air. P. Smith, U.S. Department of Labor – OSHA, Sandy, UT.

10:40 AM – 11:00 AM

SR-123-03 Real-Time Detection of ppb Levels of Benzene in Industrial Atmospheres. J. MacLachlan, J. Driscoll, PID Analyzers, LLC, Sandwich, MA.

11:00 AM – 11:20 AM

CS-123-04 Worker Exposure Assessment Strategies for Tank Gauging Operations Conducted in the Bakken Oilfields (North Dakota). J. Hill, P. Smith, D. Pearce, U.S. Department of Labor – OSHA, Sandy, UT.

11:20 AM – 11:40 AM

SR-123-05 Real-Time Detection System for Measuring VOCs, Temperature, Humidity, and Location. K. Brown, K. Mead, R. Kovein, P. Shaw, NIOSH, Cincinnati, OH; R. Voorhees, Univ. Cincinnati, Cincinnati, OH; A. Brandes, MeasureNet LLC, Cincinnati, OH.

11:40 AM – Noon

SR-123-06 Combatting Humidity and Other Matrix Gases on the Response Hand-held PIDs. W. Haag, Ion Science USA, Stafford, TX.

PO124

Risk Modeling Tools in the Current and Future Toolkit

10:00 AM – Noon

155A

Moderator: S. Dotson, NIOSH, Cincinnati, OH. **Monitors:** S. Carter, Kirkland, WA; S. Thygeson, Brigham Young University, Provo, UT.

10:00 AM – 10:20 AM

CS-124-01 Selecting Risk Assessment Tools: Uses, Abuses, and Confusion. B. Beadie, P. Wiescher, T. Ashton, E. Curtis, Maul Foster Alongi, Portland, OR.

10:20 AM – 10:40 AM

SR-124-02 Comparison of CHARM and COSHH Essentials for Selected CMR Chemicals. S. Byeon, M. Kim, S. Shin, J. Lee, M. Ham, Environmental Health, Korea University, Seoul, The Republic of Korea.

10:40 AM – 11:00 AM

CS-124-03 A Research Vision for Occupational Based Cumulative Risk Assessment. R. Niemeier, CDC/NIOSH, Cincinnati, OH; G. Dotson, Blue Ash, OH.

11:00 AM – 11:20 AM

CS-124-04 Cumulative Risk Assessment for Occupational Scenarios: Screening Level Tool for the IH Practitioner. A. Lamba, US Environmental Protection Agency, Vienna, VA.

11:20 AM – 11:40 AM

CS-124-05 Modeling Historical Risk to Industrial Building Occupants from Leaking Underground Storage Tank Vapor Intrusion. F. Boelter, J. Persky, S. Song, B. Schnorr, ENVIRON International Corp., Chicago, IL.

11:40 AM – Noon

SR-124-06 The Need for a Revised, Risk-Based, Occupational Exposure Standard for Asbestos. J. Rasmuson, A. Korchevskiy, E. Rasmuson, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO; V. Roggli, Duke University, Durham, NC.

RT225

Control Banding Applications in Laboratory Operations

10:00 AM – Noon

355E

Arranger: S. Derman, Medishare Environmental Health & Safety Services, Cupertino, CA. **Moderator:** S. Derman, Medishare Environmental Health & Safety Services, Cupertino, CA. **Monitors:** R. Lally, Aurora Industrial Hygiene, San Diego, CA; D. Harrington, Genentech, South San Francisco, CA.

Control banding began receiving broader attention in the late 1990s for its simplified risk assessments for bulk chemicals. With millions of chemicals and potential mixtures, the control banding strategy must be implemented to identify and control those potential hazards. Initially, the laboratory is the primary area where these materials may be found. Control banding is the most effective tool for understanding chemical properties and implementing controls for these potential hazards in the laboratory.

- **Chemical Safety Levels: An Approach to Control Banding For Chemical Use.** D. Decker, University of California, Davis, Davis, CA.
- **Control Banding in Research: Strengths, Weaknesses, and Lessons Learned.** D. Zalk, LLNL, Livermore, CA.
- **NIOSH's Nanotechnology Initiative.** A. Eastlake, NIOSH, Cincinnati, OH.
- **ASHRAE's Laboratory Classification and the Impact on Laboratory Design.** A. Bare, Newcomb & Boyd Consultants and Engineers, Atlanta, GA.

RT226

Managing Fall Protection Programs for Optimal Safety and Efficiency

10:00 AM – Noon

251DEF

Arranger: P. Murcell, KWA Safety & HazMat Consult Inc., El Dorado, CA. **Moderator:** P. Murcell, KWA Safety & HazMat Consult Inc., El Dorado, CA. **Monitors:** M. Soltis, Tetratex, Pittsburgh, PA; N. Orr, Becton Dickinson, Franklin Lakes, NJ.

Falls from height and the potential for serious worker injuries and fatalities continues to be a major occupational safety issue. The evolution of active fall protection systems and requirements for their use is outlined in ANSI Z359 Fall Protection Code, ISO, Canadian, European, and U.S. fall protection standards. This roundtable will examine active fall protection requirements. Real world examples will be incorporated

with the discussion on regulatory and consensus standard requirements as well as presenting the safety challenges that may be encountered by the EOSH professional who is responsible for fall protection issues.

- **Critical Elements of a Complete Managed Fall Protection Program.** G. Small, High Engineering Corp, Calgary, AB, Canada.
- **Quality is Free.** W. Parsons, High Engineering Corp, Calgary, AB, Canada.
- **How to Select Manufactured Fall Protection Equipment.** D. Henn, Reliance Industries, Deer Park, TX.
- **Fall Rescue and Rope Access.** J. Laurie, Vertigo Work at Height, Calgary, AB, Canada.

RT227

Occupational Hygiene and Safety in Africa

10:00 AM – Noon

251ABC

Arranger: C. Hovde, Caterpillar Inc., Peoria, IL. **Moderator:** L. Renton, WESA, a BluMetric company, Ottawa, Canada. **Monitors:** A. Alewelt, Caterpillar, Rochester, IL; K. Akintunde, University of North Texas Health Science Center.

Africa is home to some of the fastest growing economies in the world, with work sites ranging from mines to petrochemical to agriculture to complex manufacturing to hospitals. Work conditions and government regulations are very diverse. Additionally, the health care infrastructure is not well developed and disease outbreaks, such as Ebola, are very hard to control. Industrial hygienists face not only the traditional challenges of a job site, they also must account for the government and medical challenges. This roundtable will provide examples of the unique IH hazards found in Africa, external conditions, and solutions for success.

- **Silica Exposure in Small Scale Tanzanian Mining Operations.** J. Dalhoff, NASA Goddard Space Flight Center, Greenbelt, MD.
- **Where Occupational Safety and Health Stands on Struggle Against Absolute Poverty Reduction in Mozambique.** M. Levitsky, Workplace Health Without Borders, Mississauga, Ontario, Canada; C. Muianga, CDC/ATSDR, Atlanta, GA.
- **Occupational Hygiene in Nigeria before and During the Ebola Outbreak.** E. Okoro, Afram International Environment Consultants, Inc, Arlington, TX.

- **Challenges in Responding to the 2014 Ebola Outbreak.** C. Sheets, California Department of Industrial Relations, San Francisco, CA.

SPO9

Bayesian and Professional Judgment Users Group

(Pre-registration required)

10:00 AM – Noon

257

Facilitators: John Mulhausen, Perry Logan, 3M Company; Paul Hewett, Exposure Assessment Solutions.

The Bayesian and Professional Judgment Users Group was created to build a network for all professionals that are actively utilizing Bayesian tools and professional judgment within their professional practice. The purpose of this session is to provide a forum for anyone interested in exploring that network for sharing best practices, challenges, and opportunities for strengthening exposure judgments using IH Bayesian tools. Attendees are encouraged to bring any experience (good and bad), tools and checklists to share.

PO125

PPE Related

10:00 AM – 12:20 PM

255D

Arranger: C. Hintz, Dow Chemical, Victoria, TX. **Moderator:** C. Hintz, Dow Chemical, Victoria, TX. **Monitors:** M. Nolen, Montana Tech, Cameron Park, CA; D. Linville, IH, CTEH, LLC, Mars Hill, NC.

10:00 AM – 10:20 AM

CS-125-01 A Multifaceted Silica Reduction Strategy on Oil and Gas Completion Sites: What Works and What Doesn't. E. Schmick, Encana Services Company Ltd., Denver, CO.

10:20 AM – 10:40 AM

CS-125-02 Personal Protective Equipment Compliance Challenges of Agriculture Retail Facilities with Permanent Storage of Anhydrous Ammonia. A. Kayne, Crop Production Services, Loveland, CO.

10:40 AM – 11:00 AM

SR-125-03 Durability of Protective Gloves Against Single-walled Carbon Nanotube and Nano-size Titanium Dioxide. P. Jaques, R. Weible, URS Corporation, Pittsburgh, PA; L. Portnoff, P. Gao, NIOSH, Pittsburgh, PA.

Technical Sessions WEDNESDAY, JUNE 3

WEDNESDAY TECHNICAL SESSIONS

11:00 AM – 11:20 AM

SR-125-04 Surface Area as a Method for the Determination of Glove Degradation. K. Steele, T. Pelham, R. Phalen, California State University San Bernardino, Cherry Valley, CA.

11:20 AM – 11:40 AM

SR-125-05 Evaluation of the Chemical Degradation of Polymers Exposed to Complex Mixtures: Can We Predict Performance Based on Major Ingredients? T. Pelham, K. Steele, R. Phalen, California State University San Bernardino, San Bernardino, CA.

11:40 AM – Noon

SR-125-06 I'm Loading 1,3-butadiene. What Respirator Should I Use? D. Shoop, Total Safety, Houston, TX.

Noon – 12:20 PM

SR-125-07 Evaluation of Personal Cooling Gear for Occupational Settings. K. Myers, R. Reed, E. Lutz, Public Health, University of Arizona, Tucson, AZ.

PO126

Environmental and International EH&S Issues

10:00 AM – 12:20 PM

355F

Arrangers: L. Wong, EH&S, University of California Office of the President, Oakland, CA; K. Garg, U.S. Department of Veterans Affairs, Tacoma, WA. **Moderators:** A. Korchevskiy, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO; G. Popov, UCM, Overland Park, KS. **Monitors:** S. Celly, Celly Services, Inc., Long Beach, CA; K. Garg, U.S. Department of Veterans Affairs, Tacoma, WA.

10:00 AM – 10:20 AM

Rachel Carson Award

10:20 AM – 10:40 AM

SR-126-01 Environmental Impacts of Hydraulic Fracturing on a Lake in West Virginia: A Case of Radionuclide Partitioning and Disequilibrium. A. Nelson, M. Schultz, Human Toxicology, University of Iowa, Iowa City, IA.

10:40 AM – 11:00 AM

SR-126-02 Erionite as an Occupational and Environmental Hazard in the Western U.S. M. Harper, Exposure Assessment Branch, CDC/NIOSH, Morgantown, WV.

11:00 AM – 11:20 AM

SR-126-03 Association of Urinary 8-hydroxy-2'-deoxyguanosine Levels with Aging and Increased Fractional Exhaled Nitric Oxide in Elder Chinese Women. J. Yuan, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.

11:20 AM – 11:40 AM

CS-126-04 Meeting the Challenge of Measuring Health and Safety Performance Globally: ASTM Standard E2920 – 14 for Recording Occupational Injuries and Illnesses. D. Woodhull, S. Newell, ORCHSE Strategies, LLC, Washington, D.C.

11:40 AM – Noon

CS-126-05 Mentored Skill Building Increases Asbestos Hazard Awareness in Indonesia. K. Gunderson, School of Public Health, Environmental Health, University of California, Berkeley, San Ramon, CA.

Noon – 12:20 PM

CS-126-06 Personal Breathing Zone Employee Exposure Monitoring for an Anaesthetic Agent at a Research and Development Facility in India. A. Sharma, International Safety Systems, Inc., Faridabad, India; M. Mehta, International Safety Systems, Inc., Washingtonville, NY.

RT228

Recognition, Evaluation and Control of Legionella in Building Water Systems

10:00 AM – 12:30 PM

155EF

Arranger: J. Springston, TRC Environmental Corp., New York, NY. **Moderator:** J. Springston, TRC Environmental Corp., New York, NY. **Monitors:** W. Kerbel, Environmental Health Investigations, Inc., Sparta, NJ; B. Kollmeyer, Forensic Analytical, Rancho Dominguez, CA.

Legionnaires' disease (LD) was first recognized in 1976 following an outbreak of pneumonia among delegates at the American Legion annual convention. Legionella continues to be a risk to building occupants and is the single most common etiologic agent associated with outbreaks involving potable water. Since LD is transmitted from the environment, and not via person-to-person, the IH model of focusing on the recognition, evaluation, and control of specific environments where Legionella bacteria can grow, is the recommended approach for prevention and control of LD.

- **No Standardized Prevention Policy for LD as of 2014.** R. Berkelman, Rollins School of Public Health, Atlanta, GA.
- **Legionnaires' Disease Risk Management Strategies: A Critical Update at a Critical Moment.** T. Bernier, S. Smith, Segal, McCambridge, Singer & Mahoney, Baltimore, MD.

- **The Importance of Proactively Testing Water Systems for Legionella.** W. Flanders, Rollins School of Public Health, Atlanta, GA.
- **How Do the New AIHA® Legionella Guidelines Fill Gaps in Current Guidelines and Practices?** J. Krause, Geosyntec, Temple Terrace, FL.
- **Importance of Measurement Error.** W. Flanders, Rollins School of Public Health, Atlanta, GA.

CR318

Industrial Ecology

11:00 AM – Noon

355A

Presenter: M. O'Reilly, SUNY Empire State College, Syracuse, NY.

Industrial ecology is the science of analyzing resource use and its environmental, economic and cultural impacts during all stages of development (extraction, manufacture, transport, use and disposal). Industrial hygiene knowledge and skill in controlling occupational and environmental risk, are essential to industrial ecology. This presentation addresses what industrial hygiene brings to industrial ecology, what industrial hygiene can learn from industrial ecology, and why both fields should embrace each other.

CR319

What's New in Confined Space Entry: A Look at the NFPA 350 Guide for Safe Confined Space Entry and Work

11:00 AM – Noon

355D

Presenter: N. Pearce, National Fire Protection Association, Quincy, MA.

The new NFPA 350 Guide for Safe Confined Space Entry and Work has been developed to supplement requirements and address gaps in existing regulations and codes. This presentation will highlight key document contents that include prescriptive guidance for hazard identification and control, pre-evaluation checklists, gas monitoring, permits, rescue, ventilation and training competencies.

Full session descriptions on the AIHce Mobile App.



IL08

Global Industrial/Occupational Hygiene Issues Table Topic Discussions

NOON - 1:00 PM **EXHIBIT HALLS C/D/E**

Update on Efforts to Improve OHS Capacity in Bangladesh's Garment Industry.

G. Brown, Maquiladora Health & Safety Support Network.

An update and discussion of existing and ongoing efforts by OHS professionals, international agencies and local government and NGOs to both address immediate issues related to fire, electrical and building safety in the garment sector and also to build the country's overall OHS capacity in the government, employers, unions, and other worker and community organizations. Discussion will include opportunities for conference participants to get involved in current and future activities, either remotely where they live or possibly in Bangladesh.

Brick Kilns Exposure Evaluation.

W. Carter, University of Findlay, Shaker Heights, OH.

Several projects evaluating Brick Kilns for worker exposure have been conducted and are being contemplated. Discussion will focus on strategies and plans to develop a roundtable at AIHce 2016 on this subject. Join the discussion and share your wisdom, ideas and plans.

Latin America Health and Safety.

E. Shaw, Panama Canal Authority, Panama City, Panama.

Join the discussion regarding growth perspectives in Latin America and the new challenges to health and safety professionals.

Challenges and Opportunities in Establishing a Global Program for EHS.

Z. Mansdorf, Sustainability Consultants, Boca Raton, FL.

Discussion will focus on the challenge that globalization creates as more and more American companies become involved with operations overseas. This situation shifts the IH compliance paradigm for specialists and managers to consider specific local requirements and standards.

SP10

Donald E. Cummings Award Lecture

Using Isometric Particles and Fibers in Lung Tissue of Workers as Complementary Analysis to Improve Knowledge and Understand Workers' Exposure

12:30 PM - 1:30 PM

155D



Presenter: André Dufresne, PhD, CIH, Department of Environmental and Occupational Health, School of Public Health, Université de Montréal.

Estimates of occupational exposures are obtained by industrial hygienists from direct industrial hygiene measurements of actual exposure combined with indirect historical estimates of workplace concentrations of the substances of interest. Nevertheless, the best designed strategy to estimate exposure may not allow you to target the 'the non-expected' hazard and ultimately the risk to health.

Particles' analysis in lung tissue is a technique that can be used for a variety of occupational studies to assess systematically the quantity and type of both fibrous and non-fibrous particles of occupational origin. In the end, quantification of isometric particles and fibers that used estimations of particles or fibers per mass of lung tissue maybe a useful tool to complement or consolidate field exposure assessment if a statistically representative number of particles excluding endogenous particles could be counted and reasonably characterized according to their morphology and chemical composition.

Analysis of single particles in the lung is conducted by transmission electron microscopy (TEM) and X-ray energy dispersive spectrometry (EDS), optical microscopy (OM), Laser microprobe mass analyzer (LAMMA) and other micro-analytical technique. Global analysis of particles can be performed by X-ray diffraction if a sufficient amount of lung tissue is available.

The presentation will show examples of particles' analysis in the lung tissue helped to anticipate, recognize and evaluate workers' exposure. For instance, we will look for:

- workers in the production of silicon carbide
- electricians and electro technician
- printer who used a carbon-arc lamp
- workers from a smelter
- dental technician
- workers exposed to asbestos in different settings.

CR320

Why Incident Management Matters

1:00 PM - 2:00 PM

155A

Presenter: E. Glass, EHS Advisory Services, UL Workplace Health & Safety, Franklin, TN.

Good incident management is imperative! But how an incident is managed can enhance (or limit) the future success of health and safety programs. In this session, how a "new way of thinking" in investigative approaches can better lead efforts in the right direction will be discussed. Incidents will occur, but how organizations learn from them is ultimately the best defense.

RT229

Quantifying Dermal Exposure: Comparisons of Sampling Methods to Assessment Models

1:00 PM - 3:30 PM

155EF

Arranger: R. Tibaldi, ExxonMobil Biomedical Sciences, Annandale, NJ. **Moderator:** J. Sahmel, Cardno ChemRisk, Boulder, CO. **Monitors:** A. Born, 3M, Knoxville, IA; T. Blodgett, 3M, St. Paul, MN.

Dermal exposures encountered in the work environment can vary from incidental contact to immersion conditions. Dermal sampling methods have emerged to quantify skin and surface contamination. This roundtable will present experiences with exposure assessment strategies, quantification methods and modeling approaches used to characterize dermal exposure. Guidance for investigating skin effects, case management and tips provided to help occupational health professionals in managing dermal hazards.

- **Dermal Absorption from Neat Nicotine and Commercial E-cigarette Liquids.** H. Frasch, NIOSH, Morgantown, WV.
- **Skin & Surface Sampling Methods Interpreting Results and Limitations.** A. Stefaniak, NIOSH, Morgantown, WV.
- **IH SkinPerm Modeling Dermal Absorption.** R. Tibaldi, ExxonMobil Biomedical Sciences, Annandale, NJ.
- **REACH Dermal Hazard Characterization and Risk Assessment.** C. Richard, Concurrent Technologies Corporation, Aberdeen Proving Ground, MD.
- **Implementing a Dermal Exposure Investigation and Management Program.** K. Hacker, 3M, Knoxville, IA.

RT230

Radiation Safety in the Oil and Gas Industry

1:00 PM – 3:30 PM

255E

Arranger: J. Kenoyer, Dade Moeller, Oak Ridge, TN. **Moderator:** J. Kenoyer, Dade Moeller, Oak Ridge, TN. **Monitors:** C. Richards, S.C. Johnson – A Family Company, Racine, WI; J. Lewis, Maryland Dept. of the Environment, Baltimore, MD.

The oil and gas industry makes extensive use of radiation generators and sealed and unsealed radioactive sources. In addition, significant quantities of naturally occurring radioactive material (NORM) originating from the reservoir rock are encountered during production, maintenance and decommissioning. Over the past few years, NORM has become an ever increasing issue within this industry. This roundtable will provide information on the regulating, measuring radiation and working with naturally occurring radioactive material (NORM) in the oil and gas industry.

- **The NORM Regulatory Universe.** A. Fellman, Dade Moeller, Gaithersburg, MD.
- **Pathways for Exposure to NORM.** B. Thomas, Integrated Environmental Management, Findlay, OH.
- **Petroleum Worker Survey for Exposure to Radon.** P. Owens, Shell Oil Company, Martinez, CA.
- **How to Avoid Errors of Measurements and Interpretation for NORM.** R. Johnson, Dade Moeller, Gaithersburg, MD.
- **Oil and Gas NORM/TENORM: Field Applications.** G. Blanchard, NORM Solutions, LLC, Arlington, TX.

SS003

Physical Risk Factors and Musculoskeletal Disorders: A Review of Findings from the NIOSH Field-Based Studies

1:00 PM – 3:30 PM

255F

Arranger: A. Dartt. **Moderator:** S. Gallagher, Auburn University, Auburn, AL. **Monitors:** L. Nystrom, DuPont, Wilmington, DE; M. Wan, Ferris State University, Big Rapids, MI.

Work-related musculoskeletal disorders (MSDs) continue to be one of the leading causes of lost workday injury and illness. NIOSH has funded field-based epidemiological research studies to examine the exposure-response relationship between physical workplace risk factors and work-related MSDs. In addition, NIOSH created a collaborative research program,

called the Upper Limb Musculoskeletal Disorder Consortium to conduct research aimed at preventing work-related upper limb disorders. This roundtable will present studies from the field-based and upper limb MSD prevention research and will examine ergonomic exposure assessment tools, various MSD outcomes and epidemiological case definitions.

- **Impacts of Varying Epidemiological Case Definitions on Apparent Risk Factors for Musculoskeletal Disorders.** K. Hegmann, RMCOE, Salt Lake City, UT.
- **Using the Occupational Information Network for a General Population Job Exposure Matrix: Applied to a Pooled Study of Prevalent Carpal Tunnel Syndrome.** A. Dale, Washington University School of Medicine, St Louis, MO.
- **Modeling Physical Exposure Risk Factors for LBP: How Much is Too Much?** A. Merryweather, University of Utah, Salt Lake City, UT.
- **Exposure-Response Relationships for Peak Force, Hand Activity Level (HAL) and the ACGIH® TLV® for HAL: Results from a Pooled Prospective Study of Carpal Tunnel Syndrome.** J. Kapellusch, University of Wisconsin, Milwaukee, WI.
- **Physical Workplace Factors Associated with Carpal Tunnel Syndrome: A Pooled Prospective Study.** C. Harris-Adamson, University of California, Berkeley, Oakland, CA.

RT231

Notable Confined Space Events and Issues

1:00 PM – 4:00 PM

355B

Arranger: W. Brown, Retired, Fairborn, OH. **Moderator:** W. Brown, Retired, Fairborn, OH. **Monitors:** C. Dellacqua, Amgen, Thousand Oaks, CA; R. Bowers, Terracon Consultants, Park City, UT.

This roundtable will present typical and unusual examples of confined space entries and confined space entry program issues encountered in work environments. The presenters will describe the conditions encountered, the outcomes of solutions implemented and provide the audience with potential solutions to similar conditions they may encounter.

- **A Tale of Two CSE Program Improvement Events.** E. Osby, Kohler Co., Kohler, WI.
- **The Washington Ave. Sink Hole, Kingston, NY.** K. Eck, Quality Environ. Solutions & Tech Inc., Wappingers Falls, NY.

- **Confined Spaces in Agriculture: The Final Frontier.** N. McManus, Northwest Occupational Health & Safety Universidade Federal Fluminense, Niteroi, RJ, Brazil.
- **Taking Advantage of Multiple Detection Technologies to Determine the True Concentration When the Target Gases Exist in Matrix.** R. Henderson, GFG Instrumentation, Ann Arbor, MI.
- **Management of Oxygen Deficiency in Municipal Water Utility Confined Spaces.** G. Bibbins, San Francisco Water Power Sewer, San Francisco, CA.
- **Minimally Ventilated Confined Spaces in the Subsurface Infrastructure: An Incident Waiting to Happen?** N. McManus, Northwest Occupational Health & Safety Universidade Federal Fluminense, Niteroi, RJ, Brazil.

RT232

Ethics in Healthcare

1:00 PM – 4:30 PM

355C

Arranger: M. Cooper, Consultant. **Moderator:** J. Rice, Intermountain Healthcare, Salt Lake City, UT. **Monitors:** B. Lippy, CPWR, The Center for Construction Research and Training, Silver Spring, MD; M. Cooper, Consultant.

A large number of IH and safety professionals work in healthcare, one of the largest and fastest growing industry sectors. These professionals need to make difficult ethical decisions that require balancing risk with risk perception, occupational health with public or patient health, rights of the patients with rights of the workers, cost of protection with quality of protection, and patient needs with client or employer needs. Speakers will discuss the ABIH Code of Ethics and ethical issues associated with workplace violence, providing competent professional services, independent decision making, and mandatory vaccination.

- **Healthcare Professionals as Opinion Leaders: Managing Professional and Personal Boundaries.** A. Lyles, University of Baltimore College of Public Affairs, Baltimore, MD.
- **Reporting Test Results that Management Doesn't Want to Hear: You Think.** B. Evans, Ecostratum, LLC, Terrace Park, OH.
- **Ethics and the IH in Healthcare Settings.** J. Martinelli, Forensic Analytical Consulting Services, Citrus Heights, CA.

- **Workplace Violence: What Are the Ethical Responsibilities of Industrial Hygienists?** T. Fuller, Illinois State University, Bloomington, IL.
- **Healthcare Workers Should be Required to Wear Surgical Masks if Not Immunized for Seasonal Influenza.** L. Johnson, Lee Memorial Health System, Fort Myers, FL.
- **Healthcare Workers Should Not be Required to Wear Surgical Masks if Not Immunized for Seasonal Influenza.** L. Brosseau, University of Illinois Chicago, Chicago, IL.

RT233

Improving Safety Culture Through Lessons Learned

1:00 PM – 4:30 PM

355E

Arranger: R. Lally, Aurora Industrial Hygiene, San Diego, CA. **Moderator:** E. Mellas-Hulett, University of Vermont, Burlington, VT. **Monitors:** L. Wong, University of California Office of the President, Oakland, CA; L. Poore, Univ. of Kentucky, Lexington, KY.

A variety of organizations have developed “lessons learned” programs whenever hazards occur in the research environment to enhance the safety awareness of lab workers and improve the safety culture. This roundtable will discuss the development and utilization of lessons-learned reports within their organization.

- **Turning the Tide: Why Leveraging Lessons Learned Can Change Culture.** T. Bray, Frederick National Laboratory Cancer Research/NIH, Frederick, MD.
- **Lessons Learned at the Centers for Disease Control (CDC).** P. Meechan, CDC, Atlanta, GA.
- **Preparation, Dissemination and Evaluation of Lessons Learned for R&D Laboratories in the Department of Energy Complex.** J. Peters, Brookhaven National Laboratory, Upton, NY.
- **Learning by Accident.** J. Kaufman, The Laboratory Safety Institute (LSI), Natick, MA.
- **Liquid Nitrogen Cylinder Laboratory Explosion Incident at Texas A&M University.** D. Breeding, Texas A&M University, College Station, TX; D. Rice, Texas A&M University, College Station, TX.

RT234

New Developments in Sampling and Analysis of Workplace Chemical Exposures

1:00 PM – 4:30 PM

251DEF

Arranger: M. Eide, OSHA retired, Boise, ID. **Moderator:** S. Iske, University of Central Missouri, Kansas City, MO. **Monitors:** B. Weaver, Lancaster, PA; P. Kostle, State Hygienic Laboratory at Univ. Iowa, Coralville, IA.

The research to find new ways to collect and analyze more chemicals in the workplace is an ongoing effort in academia, government, AIHA® certified labs, and by sampling media manufacturers. This roundtable will discuss research that has led to the development of new sampling and analytical procedures allowing the industrial hygienist to more easily take samples, obtain more accurate results, eliminate interferences and improve quantification of analytes.

- **Improved Measurement of Isocyanates, Pesticides, and Flame Retardants using LC-MS.** G. Oishi, Sigma-Aldrich/Supelco, Bellefonte, PA.
- **Interlaboratory Study of NIOSH Draft Canister Method for Select Volatile Organic Compounds.** R. LeBouf, D. Burns, L. Feng, NIOSH, Morgantown, WV.
- **Validation of a Diffusive Sampler for Monitoring Anesthetic Gases in Workplace Air.** C. Kuhlman, SKC Inc., Eighty-Four, PA.
- **Sampling and Analysis of Anesthetic Gases Using Diffusive Samplers.** B. Quarles, Assay Technology, Livermore, CA.
- **Evaluation of Sampling Media for Use in a Nanoparticle Respiratory Deposition Sampler.** L. Mines, T. Peters, University of Iowa, Iowa City, IA.
- **An Integrated Aerosol Sampler for Occupational Exposure Monitoring.** C. Quinn, Colorado State University, Fort Collins, CO; J. Volckens, Johns Hopkins University, Fort Collins, CO.
- **An alternate Method for the Analysis of 1,3,5-Triglycidyl Isocyanurate (TGI).** M. Jordan, Galson Laboratories, East Syracuse, NY.

RT235

Occupational Hygiene in Agriculture – Exposure Controls

1:00 PM – 4:30 PM

255D

Arranger: M. Nonnenmann, University of Iowa, Iowa City, IA. **Moderator:** C. Achutan, University of Nebraska Medical Center, Omaha, NE. **Monitors:** D. Douphrate, University of Texas – San Antonio, San Antonio, TX; T. Anthony, University of Iowa, Iowa City, IA.

Death, injury, and illness are higher among agricultural workers as compared to almost all other occupations. A substantial amount of research has been conducted in the U.S. and abroad to develop exposure controls to mitigate or reduce occupational exposures among agricultural workers. The focus of this roundtable is to highlight recent research findings evaluating exposure controls among agricultural workers.

- **Controlling Exposures in CAFOs: An Engineering Approach.** T. Anthony, University of Iowa, Iowa City, IA.
- **Evaluating Resistance to Flow Among N95 Respirators While Performing Power Washing in Swine Production.** J. Ramirez, P. O'Shaughnessy, University of Iowa, Iowa City, IA.
- **Interventions to Reduce Microbial Exposures and Improve Respiratory Health among Dairy Farm Workers.** J. Schaeffer, Johns Hopkins University, Fort Collins, CO.
- **Controlling Worker Exposure to Dust on Broiler Chicken Farms: Potential Solutions.** M. Nonnenmann, University of Iowa, Iowa City, IA.
- **Interventions to Reduce Exposure to Physical Risk Factors for Musculoskeletal Disorders among Dairy Parlor Workers.** D. Douphrate, University of Texas Health Science Center, San Antonio, TX.
- **Associations Between Exposure to Physical Risk Factors and Musculoskeletal Pain Among Agricultural Workers.** N. Fethke, University of Iowa, Iowa City, IA.
- **Surveillance and Evaluation of Agricultural Worker Use of Hearing Protection Equipment.** C. Achutan, University of Nebraska Medical Center, Omaha, NE.

RT236

Toxicological Challenges to the Derivation and Application of Occupational Exposure Limits

1:00 PM – 4:30 PM

155BC

Arranger: M. Deveau, University of Ottawa, Ottawa, ON, Canada. **Moderator:** K. Still, Portland State University, Portland, OR. **Monitors:** R. Nocco, Chevron, San Ramon, CA; P. Owens, Shell Oil Company, Martinez, CA.

Occupational exposure limits (OELs) are important tools that allow industrial hygienists to interpret measured levels of chemicals in the workplace. Certain toxicological properties of chemicals can create challenges in the derivation of the OEL values. Industrial hygienists should consider these toxicological challenges when using the OELs to interpret exposure measurements. This session will introduce the state of the science for several toxicological challenges associated with OELs and present case studies of chemicals for which these challenges have emerged.

- **Overview of the Toxicological Basis of OELs.** A. Maier, University of Cincinnati, Cincinnati, OH.
- **Complexities in Deriving and Interpreting OELs for Chemical Irritants.** A. Maier, University of Cincinnati, Cincinnati, OH.
- **Setting OELs for Chemical Allergens: Understanding the Challenges.** S. Dotson, NIOSH, Cincinnati, OH.
- **Challenges in the Derivation and Application of OELs for Developmental and Reproductive Toxicants.** T. Lewandowski, Gradient, Seattle, WA.
- **Aligning OELs and Exposures.** M. Jayjock, Jayjock Associates, LLC, Langhorne, PA.
- **A Framework for the Selection of an Appropriate OEL.** M. Deveau, University of Ottawa, Ottawa, ON, Canada.
- **Interpretation of Risks at Exposures Above and Below OELs.** L. Beyer, Gradient, Cambridge, MA.

PO127

IH General Practice II

1:00 PM – 5:00 PM

355A

Arranger/Moderator: D. Day, Sealed Air, Duncan, SC.

1:00 PM – 1:20 PM

SR-127-01 Identification of the Electron Dose Threshold for Asbestos Fiber Chemical Analysis by TEM. J. Martin, M. Beauparlant, IRSST, Montreal, QC, Canada; G. L'Espérance, École Polytechnique de Montréal, Montreal, QC, Canada.

1:20 PM – 1:40 PM

CS-127-02 Identification of Naturally Occurring Asbestos Work Areas in Coordination with an Exposure Management Program during Vegetation Management Activities. L. O'Heir, Health & Safety Program, San Francisco Public Utilities Commission, San Francisco, CA; B. Drews, Kennedy/Jenks Consultants, San Francisco, CA.

1:40 PM – 2:00 PM

SR-127-03 Determinations of Synthetic Musks in Personal Care Products by Solid-Phase Microextraction. W. Tseng, S. Tsai, Institute of Environmental Health, College of Public Health, National Taiwan University, Taipei, Taiwan.

2:00 PM – 2:20 PM

SR-127-04 Effects of a Series of Ketone Compounds on Liver Microsomal Aniline Hydroxylase Activity in Mice—Implications for Ketone-Drug Interactions in Exposed Workers. W. Luttrell, Oklahoma Christian University, Edmond, OK.

2:20 PM – 2:40 PM

SR-127-05 Modern Design of Colorimetric Sensor Devices for Bisphenol A Dust Measurements. A. Rossner, R. Alkasir, S. Andreescu, Institute for a Sustainable Environment, Clarkson University, Potsdam, NY.

2:40 PM – 3:00 PM

SR-127-06 Adsorption Characterization of Fabricated Single Walled Carbon Nanotube Buckypapers for Volatile Organic Compound Sampling. C. Lungu, J. Oh, Environmental Health, University of Alabama- Birmingham, Birmingham, AL; E. Floyd, OUHSC, Oklahoma City, OK.

3:00 PM – 3:20 PM

SR-127-07 Isocyanates: Assessing Field Extraction. D. LaGarde, SLTC, OSHA, Sandy, UT.

3:20 PM – 3:40 PM

SR-127-08 Determinations of Bisphenol A in Household Dusts by Microwave-Assisted Solid-Phase Microextraction. C.-W. Chang, C.-J. Chang, S. Tsai, Department of Public Health & Institute of Environmental Health, College of Public Health, National Taiwan University, Taipei, Taiwan.

3:40 PM – 4:00 PM

CS-127-09 Vacuum Desiccation Applications for the Increase of Polyvinyl Chloride Filter Stability. C. Irwin, Gravimetrics, Galson Laboratories, East Syracuse, NY.

4:00 PM – 4:20 PM

SR-127-10 Effect of Particle Loading on the Performance of Thermal Desorption Tubes. C. Chang, C. Lin, S. Huang, C. Chen, J. Lai, Department of Public

Health, National Taiwan University, Taipei, Taiwan; C. Chang, J. Wu, Chang Jung Christian University, Tainan, Taiwan.

4:20 PM – 4:40 PM

CS-127-11 Toxicity-Index Hazard and Respiratory Protection. R. Prugh, Chilworth Technology, Inc., a DEKRA Company, Princeton, NJ.

4:40 PM – 5:00 PM

SR-127-12 Improvement of Selectivity of the Method for N-Nitrosamine Determination by GC-NPD in Workplace Air. M. Huard, S. Aubin, L. René, L. Locas, S. Paradis, Laboratory Division, IRSST, Montreal, QC, Canada.

RT237

Mock Trial: Industrial Hygiene Expert Witness Testimony in Deposition and Trial

1:00 PM-5:00 PM

251ABC

Arranger: M. Norman, Law Offices of Margaret Norman, Manhattan Beach, CA. **Moderator:** S. Sherman, US Department of State, Rockville, MD. **Monitors:** S. Celly, Celly Services, Inc., Long Beach, CA; P. Platcow, Chestnut Hill, MA.

Mock legal proceedings demonstrating the crucial role industrial hygiene expert witnesses play in pre-trial depositions and trial. This session consists of two mock legal proceedings. First is an expert witness deposition which will demonstrate mistakes expert witnesses make as well as correct techniques. The trial portion follows, with each side presenting their case and putting on witnesses. The fact setting involves a Thoroughbred Racetrack, which installed artificial track at a cost of several million dollars. After installation, workers at the track complained of illness, horses and jockeys became sick. Racing was halted and changes were made to the artificial track but ultimately it was removed and replaced by traditional dirt track. Racetracks have an extremely high rate of injury and illness with a number of possible causes. Because some states do not have Workmen's compensation for racetrack workers and jockeys, this will be in trial court. The plaintiff in this case is a track worker who had a disabling illness and is suing the racetrack on a negligence theory. An IH for each side will testify as an expert witness, explain their tests, interpret the data to show causation and help the court understand the technical information.

Deposition and Mock Trial

N. Feldscher, New York City Department of Environmental Protection, Corona, NY; R. Potter, ALS Laboratories, Salt Lake, UT; D.

Napier, DNA Industrial Hygiene, Manhattan Beach, CA; M. Norman, Law Office of Margaret Norman, Manhattan Beach, CA; K. Dreger, LLNL, Livermore, CA.

RT238

Perspectives on Preparation for the CIH Exam v10.0

1:00 PM – 5:00 PM 250DEF

Arranger: C. Ficklen, SQA2, Inc., Yorktown, VA. **Moderator:** A. Fleeger, ExxonMobil Corporation, Houston, TX. **Monitors:** J. Gifford, Genesis Energy, L.P., Houston, TX; B. Geyer, IHA/NASA Agency Occupational Health, Kennedy Space Center, FL.

For IHs, the most recognized professional credential is the Certified Industrial Hygienist (CIH) obtained through the American Board of Industrial Hygiene. Obtaining the CIH requires passing a comprehensive examination after meeting education and work experience requirements. The roundtable will cover requirements to sit for the exam, information on preparation strategies, self-assessment, gathering study materials, forming a game plan, and getting mentally focused for the exam. Speakers will discuss how they approached preparing for areas that examinees typically find more difficult such as toxicology, ventilation, and radiation. The session will benefit students entering the profession, current professionals working to obtain the CIH, and their employers. Please note that this session is not intended to take the place of an exam review course.

- **CIH Exam Study and Reference Material on the Cheap.** P. Raisch, WBAMC DPM-IH, El Paso, TX.
- **Learning to Sit Still.** T. Shearen, 3M, St. Paul, MN.
- **Finding Time to Study With a Busy Schedule.** J. Newnum, Ensaf, Inc., Cincinnati, OH.
- **My CIH Good Luck Charm Kicked Me in the Ribs.** J. Hauge, 3M, St. Paul, MN.
- **CIH: Controlling the Insanity and Hype of Studying.** B. Simmons, Cardno Chem-Risk, San Francisco, CA.
- **How to Pass the Exam without Alienating Family and Friends.** D. Campos, Raytheon, Tucson, AZ.
- **Planning a CIH Prep Vacation.** G. Ingle, Anniston Army Depot DPM-IH, Anniston, AL.
- **OMG! You Failed...Now What?: CIH Exam Prep Advice.** E. DeGrasse, International Brotherhood of Teamsters, Washington, DC.

CR321

Airplane Bird Strike Analysis Risk Assessment, Integrating Bow-Tie Analysis

2:30 PM – 3:30 PM 155A

Presenter: P. Esposito, STAR, Arnold, MD.

Bird strikes present one of the greatest risks to safe air travel. The Airport Cooperative Research Program (ACRP) has funded study to develop a semi-quantitative risk assessment tool to help airports determine controls and mitigations that would be most effective in reducing the risk of bird strikes from storm water design features. The tool combined severity factors that influence the mass of bird populations, and likelihood factors associated with attracting birds to storm water features. Storm water design options (geometry, location, vegetation and exposure) either increased or decreased potential risks. Bow-Tie analysis techniques were also used to quantify the amount of risk reduction offered by mitigations, based on the hierarchy of controls (elimination, substitution, engineering, administrative) and if these mitigations were on-going or implemented only upon sighting.

SP11

AIHce Movie Matinee

2:30 PM – 5:00 PM 255BC

Facilitator: S. Schneider, Laborers' Health & Safety Fund, Washington D.C.

"Temp Work" used to mean temporary work. Today "temp work" no longer refers to the duration of work assignments but rather to the nature of the employment relationship. Temp labor is one of the fastest growing industries in the US, having grown nine times faster than the economy as a whole. Increasingly, temp workers are part of a business strategy to keep costs down and profits high. From mega-retailers to mom-and-pop shops, some of the hardest and most dangerous jobs have been outsourced as well as safety and health. "A Day's Work" is a documentary film that examines these issues through the landmark workplace death of a 21-year-old Lawrence DaQuan "Day," an employee of a temporary staffing agency who was killed 90 minutes into the first day of the job – the first job of his life. The film provides a reminder of the cost of just one individual by looking into the life and perspective of Day's 17-year-old sister, Antonia. An interactive post-film discussion is included with the film's executive producer, Dave DeSario.

CR322

Safety Leadership and Engagement: Why It's Important and How to Do It

5:30 PM – 6:30 PM 155A

Presenter: W. Scott, Safety Management Solutions, National Safety Council, Itasca, IL.

Safety leadership is a critical element of developing a sustainable and positive corporate safety culture among both employees and contractors. Organizations that are able to consistently practice effective safety leadership through their senior management teams are more likely to achieve superior safety performance. Issues covered include recognizing the importance of behavior, communication and engaging employees with a focus on developing leadership skills.

RT239

Electronic Cigarettes in the Indoor Environment

5:30 PM – 7:30 PM 155BC

Arranger: C. Marcham, University of Oklahoma, Oklahoma City, OK. **Moderator:** W. Friedman, HUD, Washington, DC. **Monitors:** J. Springston, TRC Solutions, Lowell, MA; R. Froehlich, Helix Environmental, Dayton, OH.

Electronic cigarette use is increasing worldwide. "Vaping" has been promoted as a beneficial smoking cessation tool and an alternative nicotine delivery device with no combustion byproducts. Research indicates that vaping solutions and their emissions may contain much more than nicotine, e.g., aerosolized flavorings, propylene glycol, and other intentional and unintentional contaminants which could present a health hazards. While e-cigarettes' use and exposure may lower some or most risks vs. cigarettes, health effects of nicotine and aerosol exposures from them are not well understood. Research indicates that vaping aerosols are not benign, especially for nearby persons in areas with limited ventilation and persons with compromised health conditions.

- **AIHA® White Paper: Electronic Cigarettes in the Indoor Environment.** C. Marcham, University of Oklahoma Health Sciences Center, Oklahoma City, OK.
- **Risk Assessment and Sustainability Issues with E-Cigarettes.** M. O'Reilly, School of Public Health, Manlius, NY.

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Technical Sessions WEDNESDAY, JUNE 3

WEDNESDAY TECHNICAL SESSIONS

- **Airborne and Surface Nicotine Concentrations Measured in E-Cigarette Vaping Environments.** A. Rule, Johns Hopkins University, Baltimore, MD.
- **Aerosols Produced During Use of E-cigarettes.** E. Floyd, OUHSC, Oklahoma City, OK.

RT240

The “Environmental Hat”: The Role of the Industrial Hygienist in Environmental Projects

5:30 PM – 7:30 PM

255E

Arranger: E. Medina, Alliance Consulting International, San Diego, CA. **Moderator:** J. Glass, Rowan University, Glassboro, NJ. **Monitors:** Y. Zhen, Belzona Global LLC, Miami Lakes, FL; M. Schepige, Liberty Mutual Insurance Company, Lawrenceville, GA.

IH professionals working in environmental health and safety (EHS) projects need to expand beyond their core competencies, gain additional knowledge and experience, and learn to think differently. Using a case study approach, this roundtable will show how IHS work in a variety of environmental projects. To bridge the gap between protecting human health at the workplace and in the community, industrial hygienists working as EHS professionals need to become familiar with a variety of environmental sampling methods, risk management techniques, statistical models, and environmental regulations, and learn to work in multi-disciplinary teams.

- **Environmental Health Impacts from Hydraulic Fracturing.** M. Gillie, Tetra Tech Geo, Inc, Houston, TX.

- **Residential Exposure to Particulate Matter Pollution.** G. Popov, UCM, Overland Park, KS.
- **Environmental Remediation of Compressed Gas Cylinders Containing Unknown Chemicals.** R. Hunter, Parsons, Nashville, TN.
- **Community Pesticide Exposure Monitoring.** E. Medina, Alliance Consulting International, San Diego, CA.
- **Environmental Issues on Tribal Land: How Might They Affect Your Environmental Program?** M. Wan, EOH Consulting, Saint Petersburg, FL.



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Please join us for the ABIH Forum on Monday, June 1st from 2:00 to 3:30 PM at the AIHce meeting in Salt Lake City where we will celebrate and thank these remarkable professionals, and be sure to visit the ABIH booth at the AIHce Expo.



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Thursday At-a-Glance

Thursday, June 4

7:00 AM – 10:30 AM

Registration, *SPCC, South Foyer*

7:30 AM – 4:00 PM

Speaker Ready Room, *SPCC, 254A/B*

8:00 AM – 9:00 AM

- CR323 – The PPE Conundrum: When Both Chemical and Flash Fire Hazards Collide, *SPCC, 155A*

8:00 AM – 10:30 AM

- RT241 – Buy Quiet and Other Noise Control Methods in Construction, *SPCC, 155B/C*

8:00 AM – 11:30 AM

- SS004 – Inhaled Particles Update: Advancing the Science of Particle Deposition in the Respiratory System, *SPCC, 255F*

8:00 AM – Noon

- RT242 – Vivarium Risk Assessments in the Research Environment, *SPCC, 255E*

8:00 AM – 5:00 PM

- SP12 – Train the Trainer: Improving IH Exposure Judgments, *SPCC, 254C*
(Pre-registration required)

9:00 AM–11:00 AM

- SP13 – SDS Authoring and Reviewing, and IH Insomnia: What's Keeping You up at Night?, *SPCC, 151A/B/C/G*
(Pre-registration required)

9:00 AM–11:30 AM

- RT243 – Lead Poisoning Prevention: On the Threshold of New Initiatives and Discoveries, *SPCC, 255D*

9:00 AM – Noon

- RT244 – Combustible Dust Risk Management: The WHY and the HOW, *SPCC, 150A/B/C/G*

9:00 AM – 12:20 PM

- P0128 – Advances in Laboratory Sampling and Analysis, *SPCC, 150 D/E/F*

9:30 AM – 10:30 AM

- CR324 – Road Collision and Fatality Reduction through Driver Monitoring and Incentives, *SPCC, 155A*

11:30 AM – 12:30 PM

- SP14 – Herbert E. Stokinger Award Lecture: A 21st Century Paradigm for Evaluating the Health Hazards of Agents in the Workplace: The Challenge of Nanoscale Materials, *SPCC, 155D*

12:30 PM – 1:30 PM

- CR325 – Risky Business: Decision Theory and Implications for Health and Safety, *SPCC, 151A/B/C/G*

12:30 PM – 3:00 PM

- RT245 – Oh! The Places You'll Go!, *SPCC, 150A/B/C/G*
- RT246 – Spray Polyurethane Foam: Best Practices for Indoor Air Quality, *SPCC, 255F*

12:30 PM – 4:00 PM

- RT247 – Occupational Hygiene in Animal Production Agriculture: New Approaches, *SPCC, 255D*

1:00 PM – 4:00 PM

- RT248 – Prevention through Design (PtD) Ergonomics, *SPCC, 155A*

1:00 PM – 4:30 PM

- RT249 – Isocyanates: Key Practical Information for the Industrial Hygienist, *SPCC, 155 B/C*

AIHA

8:30 AM – 10:30 AM

AIHA Annual Business Meeting, *Hilton, Canyon B*

11:30 AM – 12:30 PM

AIHA Board of Directors Meeting (by invitation), *Marriott (CC), Olympus A/B*

Ancillary

8:00 AM – 5:00 PM

The Conference Board Product Stewardship & Regulatory Affairs Council (by invitation), *Marriott (HQ), Deer Valley I/II*



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CR323**The PPE Conundrum: When both Chemical and Flash Fire Hazards Collide****8:00 AM – 9:00 AM** **155A****Presenter:** S. Lovasic, Technical/R&D, DuPont Protection Technologies, Richmond, VA.

Three NFPA standards are available to assess protective clothing performance when exposed to a chemical flash fire. A discussion of differences in performance for the "Flash Fire Escape Option" of NFPA 1991 & 1992 (gas & liquid tight suits) and of NFPA 2112 (typical FR garments) will be covered. Understanding burn injury protection from clothing used for both chemical and flash fire protection is key to the industrial hygienist selecting the correct PPE for dual hazard tasks/environments.

RT241**Buy Quiet and Other Noise Control Methods in Construction****8:00 AM – 10:30 AM** **155BC****Arranger:** N. Davis, OSHA, Bethesda, MD. **Moderator:** N. Davis, OSHA, Bethesda, MD. **Monitors:** W. Long, Eastern Research Group, Inc., Arlington, VA; J. McInnis, Boilermakers International, Fall River, NS, Canada.

Noise exposures in the construction industry are pervasive and result from power tools used by the worker as well as equipment and tools used by other nearby trades (bystander exposure). Efforts need to be implemented to manage and control noise exposures in the construction industry. This roundtable explains the key concepts of the NIOSH Buy Quiet programs (Quiet by Design from the equipment manufacturer's perspective) and identifies key constituencies. Other noise control methods that are appropriate for construction work are also discussed.

- **Integrating Persuasion, Market Forces and OSHA's Experience to Reduce Hearing Loss in Construction.** M. Horowitz, CAL/OSHA, Oakland, CA.
- **Why Buy Quiet?** C. Hayden, NIOSH, Cincinnati, OH.
- **Noise in Construction: What's Next?** S. Schneider, Laborers' Health & Safety Fund, Washington, DC.

- **New Equipment Options to Reduce Noise in Construction.** A. Brading, Hilti North America, Tulsa, OK.
- **Buy Quiet as Part of Construction Project Management.** E. Satrun, ExxonMobil Corp., Mokena, IL.

SS004**Inhaled Particles Update: Advancing the Science of Particle Deposition in the Respiratory System****8:00 AM – 11:30 AM** **255F****Arranger:** J. Volckens, Colorado State University, Fort Collins, CO. **Moderator:** J. Volckens, Colorado State University, Fort Collins, CO. **Monitors:** M. Murphy, 3M Corp Safety and Industrial Hygiene, St. Paul, MN; T. Anthony, University of Iowa, Iowa City, IA.

Aerosol hazards are pervasive in industry: organic dusts in forestry, agriculture, and food production, silica and mineral dusts in construction, and metal aerosols in refining and manufacturing. New methods to estimate particle deposition directly in the respiratory tract have been developed. The objectives of this roundtable are to review the state of the science on aerosol deposition in the respiratory tract, to educate the occupational health community, and to provide a forum for discussion of needs and knowledge gaps surrounding this evolving science.

- **A Brief History of Aerosol Lung Deposition.** J. Volckens, Colorado State University, Fort Collins, CO.
- **Rationale and Development of Personal Samplers for the Gas-exchange (GE) and Extra-thoracic (ET) Regions.** G. Liden, Stockholm University, Stockholm, Sweden.
- **Development of a Sampler to Estimate Regional Deposition in the Human Respiratory Tract.** K. Koehler, Johns Hopkins University, Baltimore, MD.
- **Workplace Application of the Nanoparticle Respiratory Deposition Sampler.** T. Peters, University of Iowa, Iowa City, IA.
- **A Size-Selective Aerosol Sampler to Estimate Nasal Deposition.** D. Sleeth, University of Utah, Salt Lake City, UT.
- **Real-Time Monitors for Respiratory Deposition: Prospects and Pitfalls.** C. Asbach, Institute for Energy and Environmental Technology (IUTA), Duisburg, Germany.

RT242**Vivarium Risk Assessments in the Research Environment****8:00 AM – Noon** **255E****Arranger:** P. Williamson DeBoe, Van Andel Institute, Grand Rapids, MI. **Moderator:** B. Galdenzi, Boehringer-Ingelheim, Ridgefield, CT. **Monitors:** L. Davis, Lawrence Berkeley National Laboratory, Berkeley, CA; J. Lucas, Integra, Plainsboro, NJ.

The roundtable will focus on vivarium risk assessments for chemical and biological exposures, committee approval processes (IBC, IACUC, etc.), control banding application, OEL development/validation, and IH monitoring results and control measures. The focus will be on employee exposures to Isoflurane during rodent procedures; employee exposures to animal lab allergens, OEL development, sampling and analysis; biological assessments, control measures to include SOPs, and chemical assessments using a control banding approach.

- **Development and Performance of Sensitive Multiplex Immunoassays for the Detection of Laboratory Animal Allergens.** E. King, Indoor Biotechnologies Inc., Charlottesville, VA.
- **Evaluating Lab Animal Allergen Local Ventilation.** M. Austin, University of Minnesota, Minneapolis, MN.
- **Case Study: Controlling Exposure to Isoflurane Used in Animal Surgical Procedures in Research and Development.** M. Vangeel, Janssen Pharmaceutica N.V., Geel, Belgium.
- **Assessing Waste Anesthetic Gases during Rodent Procedures.** J. Nesbitt, Mayo Clinic, Rochester, MN.
- **Controlling Employee Exposures to Isoflurane during Animal Procedures.** D. Harrington, Genentech, South San Francisco, CA.
- **Protocol Risk Assessments for Vivarium Research Facilities.** A. Gemmellaro, The Laboratory Safety Institute, Natick, MA.
- **A Chemical Banding Approach to Manage Employee Risk in Animal Research Facilities.** S. Thomaston, Emory University, Atlanta, GA.

Technical Sessions THURSDAY, JUNE 4

SP12

Train the Trainer: Improving IH Exposure Judgments

(Pre-registration required)

8:00 AM – 5:00 PM

254C

Instructors: J. Mulhausen, P. Logan, 3M Company, St. Paul, MN.

Note: This workshop is limited to academic faculty and current students in IH training programs. Participants must bring a laptop.

This workshop will enhance attendee skills and knowledge on techniques for analyzing data in the exposure assessment process while providing tools, tips, and techniques for teaching those skills to others. Participants will be introduced to a package of presentation slides, exercises and data analysis tools that they can take and incorporate into exposure assessment courses at their industrial hygiene training institutions. Experienced instructors will teach the use of the statistical tools while providing background on the teaching materials along with suggestions to teach others.

SP13

SDS Authoring and Reviewing, and IH Insomnia: What's Keeping You up at Night?

(Pre-registration required)

9:00 AM-11:00 AM

151ABCG

Presenter: Denese Deeds, Industrial Health & Safety Consultants, Inc. **Moderator:** Robert Skoglund, Senior Laboratory Manager, 3M Medical Department.

With the implementation of GHS and HazCom 2012, are you being called upon to author or review SDSs? Do you have a list of questions? Concerns about the hazards of products you are using or making? Are the nuances of SDS information a bit fuzzy? Then this session is for you! This session, facilitated by Registered SDS Authoring Specialists, will be a roundtable discussion where you can bring your issues and get answers. This is not a presentation, but an interactive session, where subject matter experts will address your key issues in small group discussions. This session will be tailored to meet the needs of you, the audience. Participants will be asked to complete a brief online survey prior to the conference in early 2014 to identify the key issues that will be discussed.

RT243

Lead Poisoning Prevention: On the Threshold of New Initiatives and Discoveries

9:00 AM-11:30 AM

255D

Arranger: A. Korchevskiy, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO. **Moderator:** D. Goldsmith, George Washington University, Washington, DC. **Monitors:** D. Hall, R. Strode, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO.

Lead poisoning is a well-known and thoroughly studied problem. In 2012, the National Toxicology Program at NIH concluded that blood lead concentrations in children below 5 µg/dL were linked with cognitive deficits and those in adults, below 10 µg/dL, were linked with hypertension. In 2014, AIHA® adopted a new reference document related to lead poisoning issues in developing countries. In the same year, a draft position paper on the global elimination of lead poisoning was submitted to the International Society for Environmental Epidemiology (ISEE). This roundtable will discuss how IHS should use this new information in lead toxicology.

- **New Horizons in Lead Poisoning Prevention: AIHA® Reference Document on Lead and its Meaning for Developing and Developed Countries.** A. Korchevskiy, Chemistry & Industrial Hygiene, Inc., Wheat Ridge, CO.
- **Prevention and Treatment of Lead Poisoning: Implications of the Lower Level CDC Reference for Populations at Risk and Industrial Hygiene Priorities.** A. Fischbein, BSD Biomedical LLC, Elad, Israel.
- **The Science of Low-level Lead Toxicity.** D. Jacobs, National Center for Healthy Housing, Washington, DC.
- **A Call for the Global Elimination of Lead Poisoning.** F. Rosenthal, Purdue University, West Lafayette, IN.
- **Policy and Science in Lead Poisoning Prevention: How to Make Good Intentions Work.** D. Goldsmith, George Washington University, Washington, DC.

RT244

Combustible Dust Risk Management: The WHY and the HOW

9:00 AM – Noon

150ABCG

Arranger: S. Durgam, GE, Niskayuna, NY. **Moderator:** S. Durgam, GE, Niskayuna, NY. **Monitors:** M. Schepige, Liberty Mutual Insurance Company, Lawrenceville, GA; M. Larrañaga, Oklahoma State University, Stillwater, OK.

Regulators are calling for enhanced requirements to manage combustible dust because the outcome of a poorly managed combustible dust hazard is usually catastrophic. This roundtable will highlight key lessons learned from recent CSB investigations, what to expect in an OSHA inspection, the status of the OSHA NEP and the rule making efforts. Also, key aspects governing combustible dust hazards, including standards, best practices, and tools that H&S practitioner can leverage to improve the workplace conditions will be highlighted.

- **Lessons from Chemical Safety Board Investigations of Combustible Dust Explosions.** R. McClure, Terracon, Salt Lake City, UT.
- **What Industrial Hygienists Should Look For.** G. Johnson, Workplace Exposure Solutions, Cincinnati, OH.
- **Testing to Assess Explosion Characteristics of Dust.** V. Ebadat, Chilworth Global, Princeton, NJ.
- **A Systematic Approach to Dust Cloud Explosion Hazard Assessment and Control.** V. Ebadat, Chilworth Global, Princeton, NJ.
- **The Status of Combustible Dust NEP and Rulemaking Efforts.** S. Kanth, OSHA, Washington D.C.
- **Building a Combustible Dust Program.** G. Johnson, Workplace Exposure Solutions, Cincinnati, OH.

Full session descriptions on the AIHce Mobile App.



PO128

Advances in Laboratory Sampling and Analysis

9:00 AM – 12:20 PM 150DEF

Arranger: J. Cooper, Bureau Veritas. **Mod-erator:** S. VanEtten, University of Toledo, Mullica Hill, NJ. **Monitors:** M. Hsieh, Abbvie, Libertyville, IL; A. Teague, Analytics Corporation, Ashland, VA.

9:00 AM – 9:20 AM

SR-128-01 Respirable Crystalline Silica Wipe Study. D. Johansen, B. Albrecht, Salt Lake Technical Center, OSHA, Sandy, UT.

9:20 AM – 9:40 AM

SR-128-02 Possible Replacements for DM450 Filters in FTIR Analysis of Silica in Coal Mine Dust. D. Farcas, T. Lee, W. Chisholm, J. Soo, M. Harper, Exposure Assessment Branch, NIOSH, Morgantown, WV.

9:40 AM – 10:00 AM

SR-128-03 Interference Removal in Analysis of Respirable Crystalline Silica by Microwave Digestion. B. Albrecht, D. Johansen, Salt Lake Technical Center, OSHA, Sandy, UT.

10:00 AM – 10:20 AM

SR-128-04 Internal Cassette Deposits in Respirable Samplers. J. Soo, T. Lee, M. Kashon, M. Harper, NIOSH/HELD/EAB, Morgantown, WV.

10:20 AM – 10:40 AM

CS-128-05 Dispelling the Myths: Understanding the Complexity of Isocyanate Sampling in the Workplace. D. LaGarde, SLTC, OSHA, Sandy, UT.

10:40 AM – 11:00 AM

SR-128-06 Measurement of the Potential Exposure to Isocyanates Monomers and Oligomers during Spray Painting. G. Oishi, J. Brown, E. Barrey, O. Shimelis, M. Halpenny, M. Ye, R&D, Sigma-Aldrich / Supelco, Bellefonte, PA.

11:00 AM – 11:20 AM

CS-128-07 Isocyanate Field Extraction Procedure. J. Glowacki, Wisconsin Occupational Health Lab, University of Wisconsin – Madison, Madison, WI.

11:20 AM – 11:40 AM

SR-128-08 Development and Validation of a New Personal Sampler for Monitoring Inorganic Acid Mist and Gases. C. Chien, L. Shou, C. Wu, Environmental Engineering Sciences, University of Florida, Gainesville, FL; A. Theodore, Fracture, Gainesville, FL; Y. Hsu, Wood Buffalo Environmental Association, Fort McMurray, AB, Canada; B. Birky, Florida Industrial and Phosphate Research Institute, Bartow, FL.

11:40 AM – Noon

SR-128-09 Analytical Method Validation for the Use of Microfiber Cloth Swatches in Surface Wipe Sampling. M. Malinsky, B. Mader, Environmental Health and Safety, 3M, St. Paul, MN.

Noon – 12:20 PM

SR-128-10 Sampling of Semi-Volatile Compounds: A New Sampling System for Simultaneous Sampling of Droplets and Vapors. D. Breuer, C. Friedrich, IFA- Institute for Occupational Safety and Health of the Germany Accident Insurance, Sankt Augustin, Germany; G. Dragan, 2Joint Mass Spectrometry Centre, Cooperation Group "Comprehensive Molecular Analytics," Helmholtz Zentrum München, Neuherberg, Germany.

CR324

Road Collision and Fatality Reduction through Driver Monitoring and Incentives

9:30 AM – 10:30 AM

155A

Presenter: G. Wolfe, Safety, Health and Environmental Management, U.S. Department of State, Severna Park, MD.

Motor vehicle collisions continue to be the leading cause of work-related fatalities. In the U.S. and other developed countries, improvements in roadway and vehicle technology have resulted in modest reductions in fatality rates. However, developing countries do not benefit from these technologies and traffic fatality rates are actually increasing. Risky driving behavior is still the leading causal factor in roadway crashes. Many drivers engage in risky driving behaviors regardless of crash risk. For most drivers, this optimism bias is created by the fact that collisions are rare outcomes compared to risky behaviors. Therefore, other incentives or consequences to modify attitudes about risky driving must be implemented to achieve significant reductions in risky driving behaviors. The State Department began using in-vehicle video monitoring to identify drivers exhibiting risky driving behaviors overseas. While training and coaching risky drivers produced modest reductions in risky driving, a progressive discipline and award program, tied to driver performance, was needed to achieve significant reductions in risky driving and subsequent collisions.

SP14

Herbert E. Stokinger Award Lecture

A 21st Century Paradigm for Evaluating the Health Hazards of Agents in the Workplace: The Challenge of Nanoscale Materials

11:30 AM – 12:30 PM

155D



Presenter: Nigel Walker, PhD, DABT, Deputy Director for Science for the Division of the National Toxicology Program, National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH).

Over the past decade we have seen an increase in the attention focused on the assessment of the potential health risk posed by nanoscale materials. Nanoscale materials (nanomaterials, nanoparticles) are a broadly defined set of substances that have at least one critical dimension less than 100 nanometers and possess unique optical, magnetic, or electrical properties. While nanomaterials are already appearing in commerce, the same unusual chemical and physical properties that make nanomaterials useful also make their interactions with biological systems difficult to anticipate and study. As such the diversity of these materials with respect to size, composition, and surface properties, and the rapid pace of their development and commercialization, pose significant challenges to traditional approaches for assessing toxicity of these materials. At the same time the potential use of new high throughput predictive "toxicity" strategies, such as that envisioned in the recent NRC report "Toxicity Testing in the 21st Century," have emerged as possible solutions to deal with the issue of how to assess the safety of the thousands of chemicals to which humans are potentially exposed. In some respects, the emergence of diverse engineered nanomaterials offers a tailor-made test case for the development and application of a new paradigm for assessing human health hazards. This presentation will cover some of the science that is emerging on our understanding of toxicity of nanoscale materials as well as some of the new approaches that are in development for improving toxicological evaluations in this rapidly changing landscape. While these new approaches may have merit in the study of some specific classes of nanomaterials, the anticipated wide array of current and future engineered nanomaterials adds a significant level of complexity to the question of how to utilize alternative approaches in the future evaluation of the potential hazards of new materials.

CR325

Risky Business: Decision Theory and Implications for Health and Safety

12:30 PM – 1:30 PM

151ABCG

Presenter: R. Campbell, Golder Associates Ltd., Calgary, AB, Canada.

Brains can be biased in certain ways, causing individuals to make riskier decisions because of these biases. Decision theory has led to the idea of the “nudge”; using known biases to influence people into making a more desired (i.e. safer) decision. This session will provide attendees with the theory behind nudges, why they work, and how to utilize them in day-to-day operations to help increase safe decision making practices in their organization.

RT245

Oh! The Places You’ll Go!

12:30 PM – 3:00 PM

150ABCG

Arranger: P. Dopart, Johns Hopkins University, Baltimore, MD. **Moderator:** P. Dopart, Johns Hopkins University, Baltimore, MD. **Monitors:** M. Coutu, Cristal, Dundalk, MD; K. Navarro, University of California, Berkeley, Berkeley, CA.

There are many uncertainties that students, recent graduates, and early career professionals face regarding their future IH careers. If questions such as “How do I land a job interview?” and “What can I expect in my first year?” to “What other opportunities might be out there?” sound familiar, then this session is for you! This roundtable is designed to provide new graduates and early career professionals with valuable insights offered by fellow IH professionals at varying stages in their careers. Presenters will share personal experiences and practical advice based on their own differing career paths. Information regarding the tools and resources available to those looking to start or make changes to their careers will also be provided.

- **AIHA’s Career and Employment Services (CES) Committee: Supporting Your Career.** W. Nichols, Applied Materials, Austin, TX.
- **So Many Questions.** C. Ficklen, SQA2, Inc., Yorktown, VA.
- **And Now... Life Happens.** S. Rodriguez, U.S. Army Public Health Command Region-South, Fort Sam Houston, TX.
- **There’s No Place Like IH!** N. Greeson, Duke University, Hillsborough, NC.

- **IH in High-Tech.** W. Nichols, Applied Materials, Austin, TX.

RT246

Spray Polyurethane Foam: Best Practices for Indoor Air Quality

12:30 PM – 3:00 PM

255F

Arranger: E. Light, Building Dynamics, LLC, Ashton, MD. **Moderator:** S. Fess, Xerox Corporation, Webster, NY. **Monitors:** M. Soltis, Tetra Tech, Inc., Pasadena, CA; C. Dellacqua, Amgen, Thousand Oaks, CA.

Spray Polyurethane Foam (SPF) is increasingly used as an insulating product in residential construction to conserve energy. This roundtable will provide background information on product use, overview of application guidelines and potential indoor air quality issues from SPF insulation affecting movement of air in and out of a building. In addition, presenters will share research including, ongoing developments of ASTM standards to measure VOCs and SVOCs from cured foam samples.

- **Industrial Hygiene Monitoring During Application of Open Cell and Closed Cell Foam in Residential Homes.** W. Robert, BASF Corporation, Wyandotte, MI.
- **Contractor’s Perspective on SPF Misapplication.** M. Knowles, Mason Knowles Consulting, Savannah, GA.
- **Assessment and Remediation of Incompletely Cured Spray Polyurethane Foam.** E. Light, Building Dynamics, LLC, Ashton, MD.
- **Reducing Air Infiltration with Spray Polyurethane Foam and Its Effects on IAQ.** R. Duncan, Spray Foam Coalition, Fairfax, VA.
- **Development of ASTM Standards for Measuring Emissions of Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs) from Spray Polyurethane Foam (SPF) Insulation Products.** J. Sebroski, Bayer Material Science, LLC, Pittsburgh, PA.

RT247

Occupational Hygiene in Animal Production Agriculture: New Approaches

12:30 PM – 4:00 PM

255D

Arranger: M. Nonnenmann, University of Iowa, Iowa City, IA. **Moderator:** S. Reynolds, Colorado State University, Fort Collins, CO. **Monitors:** S. Kirychuk, University of Saskatchewan, Saskatoon, SK, Canada; J. Schaeffer, Colorado State University, Fort Collins, CO.

As the world population nears 8 billion people, the demand for food, especially protein is increasing rapidly. The dairy, poultry, and swine industries have responded with major changes in their scale of production and technological advances. This roundtable will address examples of the how industrial hygienists and other occupational health specialists are responding to existing and emerging occupational hazards in animal production agriculture.

- **A NIOSH Perspective: Occupational Hazards in Agriculture, Forestry and Fishing.** S. Dearwent, NIOSH, Morgantown, WV.
- **The International Dairy Research Consortium: Current Knowledge, Gaps, and Activities Related to Occupational Safety and Health in the Dairy Industry.** S. Reynolds, Colorado State University, Fort Collins, CO.
- **Bioaerosol Measurements and Worker Exposure on Australian Dairies.** S. Reed, Edith Cowan University, Joondalup, WA, Australia.
- **Airborne Measurements of Dust, Endotoxin and Contaminant Gases in Swine Production.** P. Raynor, University of Minnesota, Minneapolis, MN.
- **Engineering Controls to Reduce Swine Worker Exposure and Pathogen Transmission between Individual Animals and Between Swine Buildings.** S. Kirychuk, University of Saskatchewan, Saskatoon, SK, Canada.
- **Characterization of Dust and Bioaerosol Exposure during Work Tasks in Broiler Chicken Production.** M. Nonnenmann, University of Iowa, Iowa City, IA.
- **Factors Contributing to Bioaerosol Exposures and Respiratory Disease in Livestock Production in Denmark.** I. Basinas, Aarhus University, Aarhus, Denmark.

RT248

Prevention through Design (PtD) Ergonomics

1:00 PM – 4:00 PM

155A

Arranger: R. Prodans, Abbott, Abbott Park, IL. **Moderator:** S. Schneider, Laborers’ Health & Safety Fund, Washington, DC. **Monitors:** B. Finder, University of Wisconsin; J. Haney, New York State Department of Labor, Manlius, NY.

In 2011, ASSE/ANSI published Z590.3 Prevention through Design Guidelines for addressing Occupational Hazards and Risks in Design and Redesign Processes. Although most companies agree that the

most effective way to control workplace risks is to eliminate or significantly reduce hazards by "design in" controls to mitigate residual risks, many companies are still skeptical about the cost-effectiveness of this approach. This roundtable will address the intended applications of the standard (e.g. design of facilities, processes, products, tools and equipment, and work organization) through cases studies that demonstrate the business value of the PtD approach.

- **Prevention through Design: NIOSH PtD Initiative.** J. Bach, NIOSH, Cincinnati, OH.
- **Prevention through Design: A Case Study from the Ship Building Industry.** J. McGlothlin, Purdue University, West Lafayette, IN; B. Zavitz, Bath Iron Works, Bath, ME; B. Sullivan, OSHA, Augusta, ME.
- **Prevention through Design: Utilizing Ergo Modeling Software to Reduce Ergonomic Risks.** J. Guérin, Bureau Veritas, Seattle, WA.
- **Prevention through Design: A Case Study in the Chemical Industry.** C. White, Dow Chemical Company, Midland, MI.

- **Prevention through Design: A Case Study from the Construction Industry – An Ergonomic Concrete Drilling Rig.** C. Harris-Adamson, Samuel Merritt, Oakland, CA; D. Rempel, A. Barr, University of California, Berkeley, Berkeley, CA.
- **Prevention through Design: A Case Study from Power Train within the Auto Industry.** B. Joseph, S. Tucker, J. Burns, Ford, Detroit, MI.

RT249

Isocyanates: Key Practical Information for the Industrial Hygienist

1:00 PM – 4:30 PM

155BC

Arranger: M. Spence, International Isocyanate Institute, Inc., Midland, MI. **Moderator:** J. Cooper, Bureau Veritas. **Monitors:** T. Feeley, Bayer Corporation, Pittsburgh, PA; R. Davenport, BASF Corporation, Wyandotte, MI.

The wide variety of products, the wide reactivity differences and the multitude of analytical methods involving isocyanates, makes the task of selecting a suitable exposure assessment program and IH program recommendations a challenge.

This roundtable will describe use characteristics of the various isocyanates product applications, isocyanate analytical methods for airborne and dermal sampling, and a strategy will be presented for the selection of the most appropriate method for typical isocyanate applications.

- **Overview of Isocyanate Product Applications.** S. Ecoff, Bayer MaterialScience, Pittsburgh, PA.
- **Overview of Isocyanate Air Sampling & Analysis Methods.** K. Mattson, Bayer Material Science, Pittsburgh, PA.
- **Practical Selection and Use of Isocyanate Air Monitoring Methods.** M. Spence, International Isocyanate Institute, Inc., Midland, MI.
- **Surface Contamination Assessment for Isocyanates.** E. Hugel, BASF Corporation, Wyandotte, MI.
- **Spill Response and Surface Decontamination.** M. McKinney, BASF, Wyandotte, MI.
- **Considerations for Selection and Use of PPE with Isocyanates.** J. Cikalo, The Dow Chemical Company, Midland, MI.
- **Practical Tips from Field IH Experience.** R. Strang, Champeda Inc., Orangeville, ON, Canada.

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Poster Sessions

All posters — PS 401, 402, 403, 404, and 405 — are displayed:

Monday 9:00 AM - 5:30 PM
 Tuesday 9:00 AM - 3:00 PM
 Wednesday 9:00 AM - 1:30 PM

Poster Session 401

AUTHOR ATTEND TIME:

MONDAY 10:00 A.M. – NOON

Aerosols

- **SR-401-01 Size Distribution and Estimated Respiratory Deposition of Total Chromium, Hexavalent Chromium, Manganese and Nickel in Gas Metal Arc Welding Fume Aerosols.** L. Cena, W. Chisholm, M. Keane, A. Cumpston, B. Chen, EAB, NIOSH, Morgantown, WV.
- **SR-401-02 Developing and Validating of a New Filter Holder for Direct On-filter Analysis of Free Silica Samples by Using the XRD Method.** C. Chen, P. Tsai, National Cheng Kung University, Tainan City, Taiwan; C. Lai, Chung Shan Medical University, Taichung City, Taiwan.
- **CS-401-03 Controlling Open Pit Mine Ground Worker Respirable Silica Exposure: A Case Study.** D. Weber, Liberty Mutual Insurance Company, Glastonbury, CT.
- **SR-401-04 Exposure Level of Airborne Fungi in Pig Buildings of Korea.** K. Kim, Industrial Health, Catholic University of Pusan, Busan, Republic of Korea; H. Ko, Korean National Open University, Seoul, Republic of Korea; C. Kim, Yonsei University, Seoul, Republic of Korea.
- **SR-401-05 Filtration of Combustion Aerosols by N95, R95 and P95 Filtering Facepiece Respirator Filters.** S. Gao, S. Grinshpun, J. Kim, M. Yermakov, Y. Elmashae, T. Reponen, Department of Environmental Health, University of Cincinnati, Cincinnati, OH; X. He, West Virginia University, Morgantown, WV.
- **CS-401-06 Airborne Lead and Arsenic Exposures Arising During Metal Bridge Deck Demolition: A Case Study.** D. Weber, Liberty Mutual Insurance Company, Glastonbury, CT.

Exposure Assessment Strategies

- **CS-401-07 Performance of Ergonomic Evaluation of Identified Plant Site Job Positions for Development of Specific Physical Demands Assessment and**

Revised Job Description Documentation. J. Koehn, L. McKelvey, W. Young, JK, Inc., Houston, TX.

- **SR-401-08 Field Study of High Flow Rate Respirable Size Selective Samplers for Silica Measurement.** T. Lee, M. Harper, M. Kashon, NIOSH/Health Effects Laboratory Division, Morgantown, WV.
- **SR-401-09 Measuring Workers' Exposure to Metals in Smelter Materials Used as Fill and Assessing Potential Risk.** L. Beyer, M. Seeley, G. Greenberg, B. Beck, Gradient, Cambridge, MA; S. Thakali, URS Corporation, Philadelphia, PA; F. Melnikov, Yale University, New Haven, CT.
- **CS-401-10 A Comparison of the Use of Differing Occupational Exposure Limits Using Real World Silica Exposure Measurements.** E. Reed, R. Newton, Risk Control Services, Liberty Mutual Insurance Company, Wheat Ridge, CO.
- **CS-401-11 Use of Direct Reading Aerosol Monitors to Evaluate Exposures to Respirable Dusts Containing Crystalline Silica.** M. Wiggins, Liberty Mutual Insurance, Lexington, SC.
- **CS-401-12 Industrial Hygiene Turn-around Support Services.** W. Yip, Chemical & Environmental Engineering, National University of Singapore, Singapore.
- **SR-401-13 Reducing Welders' Exposure to Manganese Welding Fume Using Low Manganese Emissions Flux Core Wire.** J. Capuzzi, ESIS, Cape May Courthouse, NJ.

Poster Session 402

AUTHOR ATTEND TIME:

MONDAY 2:00 P.M. – 4:00 P.M.

Hazardous Chemicals

- **SR-402-01 Biomonitoring of Arsenic Exposure, Health Effect and DNA Methylation for Workers in Semiconductor and Electro-optics Industries.** I. Mao, Department of Occupational Safety and Health, Chung Shan Medical University, Taichung, Taiwan.
- **SR-402-02 Asbestos Manufacturing Industries – Analyzing 80 Years of Exposure Data.** Z. Capshaw, E. Hsu, C. Barlow, Cardno ChemRisk, Boulder, CO; G. Anderson, Cardno ChemRisk, San Francisco, CA.

- **SR-402-03 Petroleum Refinery Worker Oil Mist Exposure Evaluation.** P. Owens, Shell Oil Company, Martinez, CA.
- **SR-402-04 The Effects of Silica Exposure on Cardiac and Renal Inflammatory and Fibrotic Response and the Antagonistic Role of Interleukin-1 beta in C57BL/6 Mice.** T. Shi, Public Health, Hubei Center for Disease Prevention and Control, Wuhan, China.
- **SR-402-05 Use of High Level Disinfectants in Healthcare: A Survey of Precautionary Practices.** S. Henn, J. Boiano, A. Steege, NIOSH, Cincinnati, OH.
- **SR-402-06 Use of Precautionary Practices Reported by Nurses and Pharmacy Personnel Who Compound Antineoplastic Drugs.** J. Boiano, A. Steege, M. Sweeney, DSHEFS, NIOSH, Cincinnati, OH.
- **SR-402-07 Exposure Evaluation and Control of Acetone in a Plastination Laboratory.** M. Valigosky, S. Miltz, S. Rohrs, F. Akbar-Khanzadeh, A. Ames, University of Toledo, Toledo, OH.
- **SR-402-08 Identification of Chemicals and By-products Generated from Semiconductor Photo-lithography Process.** K. Shin, J. Hong, H. Jung, K. Kim, D. Kim, Samsung Electronics, Yong-in, Republic of Korea.

Indoor Environmental Quality

- **CS-402-09 Case Study of Several Indoor Air Quality (IAQ) Assessments which Identify Non-traditional Causes/Agents Associated with the Described Complaints/Symptoms/Concerns of Office Occupants.** M. Heaney, Liberty Mutual Group, Bedford, NH.
- **SR-402-10 Determinations of the Indoor Air Quality in Hairdressing Salons in Taipei.** C. Chang, W. Tseng, C. Chang, S. Tsai, Institute of Environmental Health, College of Public Health, National Taiwan University, Taipei, Taiwan.
- **SR-402-11 Endotoxin in Urban Homes: Health Effects and Home Conditions.** J. Crawford, SUNY College of Environmental Science and Forestry, Syracuse, NY; P. Rosenbaum, J. Abraham, SUNY Upstate Medical University, Syracuse, NY; A. Hunt, University of Texas at Arlington, Arlington, TX.
- **CS-402-12 Performance of Specified Indoor Air Quality Investigations with Site Monitoring Including Airborne**

Daily Viewing Schedule

- + PS 401 – 405 Monday 9:00 a.m. – 5:00 p.m.
- + PS 401 – 405 Tuesday 9:00 a.m. – 3:00 p.m.
- + PS 401 – 405 Wednesday 9:00 a.m. – 1:00 p.m.

Chemical Substances and Microbial Agents to Address Client Goals Related to Potential Workplace Exposures, Resolution of Odor Complaints, and Response to Reported Personnel Concerns. J. Koehn, L. McKelvey, W. Young, JK, Inc., Houston, TX.

- **CS-402-13 Ventilation Renovation Disconnect.** S. Ahrenholz, R. Niemeier, CDC/NIOSH, Cincinnati, OH.

Noise

- **CS-402-14 Aircraft Cabin Crew Noise Exposure.** R. Higley, ESIS, Corona, CA.
- **SR-402-15 Environmental Noise Impacting a Neighborhood near a Higher Education Research Facility.** A. Ames, M. Valigosky, S. Milz, T. Hagood, R. Roberts, F. Akbar-Khanzadeh, University of Toledo, Toledo, OH.
- **SR-402-16 Task Specific Noise Levels During Live Fire Training.** L. Gilbertson, D. Vosburgh, Communication Sciences and Disorders, University of Wisconsin – Whitewater, Whitewater, WI.
- **SR-402-17 Using Commercially Available Smartphones to Measure Occupational Noise Exposure.** B. Roberts, R. Neitzel, University of Michigan School of Public Health, Ann Arbor, MI.

Poster Session 403

AUTHOR ATTEND TIME:

TUESDAY 10:00 A.M. – NOON

Occupational and Environmental Epidemiology

- **SR-403-01 Evaluation of the Impact of the “Restraining Line Rule” on the Incidence of Total and Head Injuries Occurring During NFL Kickoffs.** P. Ruestow, J. Pierce, T. Duke, L. Roberts, B. Finley, Cardno ChemRisk, Chicago, IL.
- **SR-403-02 Identifying Predictors of Historical Lead Exposure Using the Published Literature and Meta-regression Model.** S. Locke, M. Friesen, National Cancer Institute, Bethesda, MD; N. Deziel, Yale Univ, New Haven, CT; National Cancer Center, Goyang, the Republic of Korea.
- **SR-403-03 Occupational Hearing Loss among Chinese Municipal Solid Waste Landfill Workers: A Cross-Sectional Study.** Y. Liu, Hubei Center for Disease Control and Prevention, Wuhan, China.

- **SR-403-04 Plasma Hsp70 and Hsp27 Levels and the Risk of COPD in Coal Miners: A Case-Control Study.** X. Cui, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China.
- **SR-403-05 Urinary Polycyclic Aromatic Hydrocarbon Metabolites and Altered Lung Function: A Population-based Study in China.** Y. Zhou, Huazhong University of Science and Technology, Wuhan, China.

Risk Assessment

- **SR-403-06 Comparison of Drinking Water Contaminant Levels in New Jersey to Regulatory and Human-Health Benchmarks.** P. Williams, E Risk Sciences, LLP, Boulder, CO.
- **CS-403-07 Case Study in Providing Health Risk Assessment for New Technology in Challenging Environments.** T. Zaccaro, Health, Shell Brasil, Rio De Janeiro, Brazil.
- **CS-403-08 Adjusting TLVs® for Reproductive and Developmental Health.** A. Reineke, J. Elias, Elias Occupational Hygiene Consulting, Winnipeg, MB, Canada.
- **CS-403-09 GHS Classifications for Diacetyl, 2,3-Pentanedione, and Mixtures Containing these Chemicals.** R. Nie-meier, A. Hubbs, K. Kreiss, CDC/NIOSH, Cincinnati, OH.
- **SR-403-10 Polish Recommendation on OEL for Methotrexate.** M. Dobecka, S. Czerczak, Chemical Safety, Nofer Institut of Occupational Medicine, Łódź, Poland.
- **CS-403-11 Can Health and Safety and Art Co-exist? Integrating Health and Safety Practices at an Art Museum.** S. Deike, Health & Safety, Art Gallery of Ontario, Toronto, ON, Canada.
- **CS-403-12 Incorporation of Newer Risk Assessment Approaches into Occupational Exposure Limits for Chemicals: The Workplace Environmental Exposure Level (WEEL) Model.** M. Deveau, University of Ottawa, Ottawa, ON, Canada; P. Owens, Shell Oil Company, Martinez, CA; K. Still, Portland State University, Portland, OR; S. Barnett Bucherl, pH2, LLC, Indianapolis, IN.
- **SR-403-13 Airborne Concentrations of Naturally Occurring Diacetyl Associated with Various Coffee Products.** A. Abelmann, Cardno ChemRisk, Chicago, IL; K. Unice, Cardno ChemRisk, Pittsburgh,

PA; S. Gaffney, A. Urban, M. Liong, L. McCarthy, D. Hollins, Cardno ChemRisk, San Francisco, CA; J. Henshaw, Cardno ChemRisk, Sanibel, FL; B. Finley, Cardno ChemRisk, Brooklyn, NY.

- **SR-403-14 Pilot Study of Exposures to Airborne Concentrations of Naturally Occurring Diacetyl During Coffee Consumption.** L. Spicer, J. Lotter, C. Comerford, A. Abelmann, J. Pierce, Cardno ChemRisk, Chicago, IL; B. Finley, Cardno ChemRisk, Brooklyn, NY.

Poster Session 404

AUTHOR ATTEND TIME:

TUESDAY 1:00 P.M. – 3:00 P.M.

Sampling and Laboratory Analysis

- **SR-404-01 Study on Generation Characteristics of Powder By-products for Novel Etching Process in the Semiconductor Manufacturing Industry.** H. An, K. Choi, D. Kim, Samsung Electronics, Yong-in, Republic of Korea.
- **CS-404-02 Bring Back the Impinger.** D. Duffy, Health, Safety & Environmental Services, ESIS, Inc., Chicago, IL.
- **CS-404-03 Sampling for Peak/IDLH Exposures using Field Portable GC/MS and Laboratory GC/MS to Investigate and Characterize Chemical Exposure.** D. Pearce, J. Hill, P. Smith, U.S. Department of Labor – OSHA, Sandy, UT.
- **CS-404-04 An Evaluation of a Quantitative X-ray Diffraction Method for Analysis of Asbestos-Containing Materials.** L. Greene, J. Ennis, W. Winstead, RTI International, Research Triangle Park, NC.
- **SR-404-05 Comparison of the Standard and Dark-medium Objective Lens in Counting Asbestos Fibers by Phase-contrast Microscopy.** E. Lee, J. Nelson, M. Kashon, M. Harper, HELD/EAB, CDC/NIOSH, Morgantown, WV.
- **SR-404-06 Development of Analytical Methods as a Tool for Checking Compliance with Newly Established OELs in Poland.** J. Gromiec, S. Brzezniak, M. Bonczarowska, A. Wziątek, Department of Chemical Safety, Nofer Institute of Occupational Medicine, Lodz, Poland.
- **SR-404-07 The Second Report of Studies of Passive Sampler Equipped with FAN Motor for Indoor Sampling of**

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Poster Sessions

Nicotine. Y. Suzuki, T. Enomoto, Development and Research Div., SIBATA Science Technology Ltd., Saitama, Japan; M. Noguchi, Seikei University, Musashino, Japan; Y. Yanagisawa, Tokyo University, Bunkyo ku, Japan.

- **CS-404-08 Using Gas Chromatography Mass Spectrometry in Single Ion Monitoring Mode for Analysis of Diacetyl and 2,3-Pentanedione.** M. Simmons, IH Chemistry, USDOL/OSHA, Sandy, UT.
- **SR-404-09 Validation of a Diffusive Sampler for Monitoring Siloxanes in Air.** J. Elder, Research, SKC Inc., Eighty Four, PA.

Poster Session 405

Student Poster Session

AUTHOR ATTEND TIME:

WEDNESDAY 10:00 A.M. – NOON

Student Poster Award Ceremony

WEDNESDAY | 12:30 PM – 1:00 PM

Honoring winners of the 25th annual Student Poster Session. Two posters will be selected "Best of Session."

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Tuesday, June 2 – 9:00 AM – 3:00 PM

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Wednesday, June 3 – 9:00 AM – 1:30 PM

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Coffee & Danish in the Expo Hall

Tuesday, June 2 – 9:30 AM – 10:30 AM

Meet with exhibitors while enjoying coffee and a snack.

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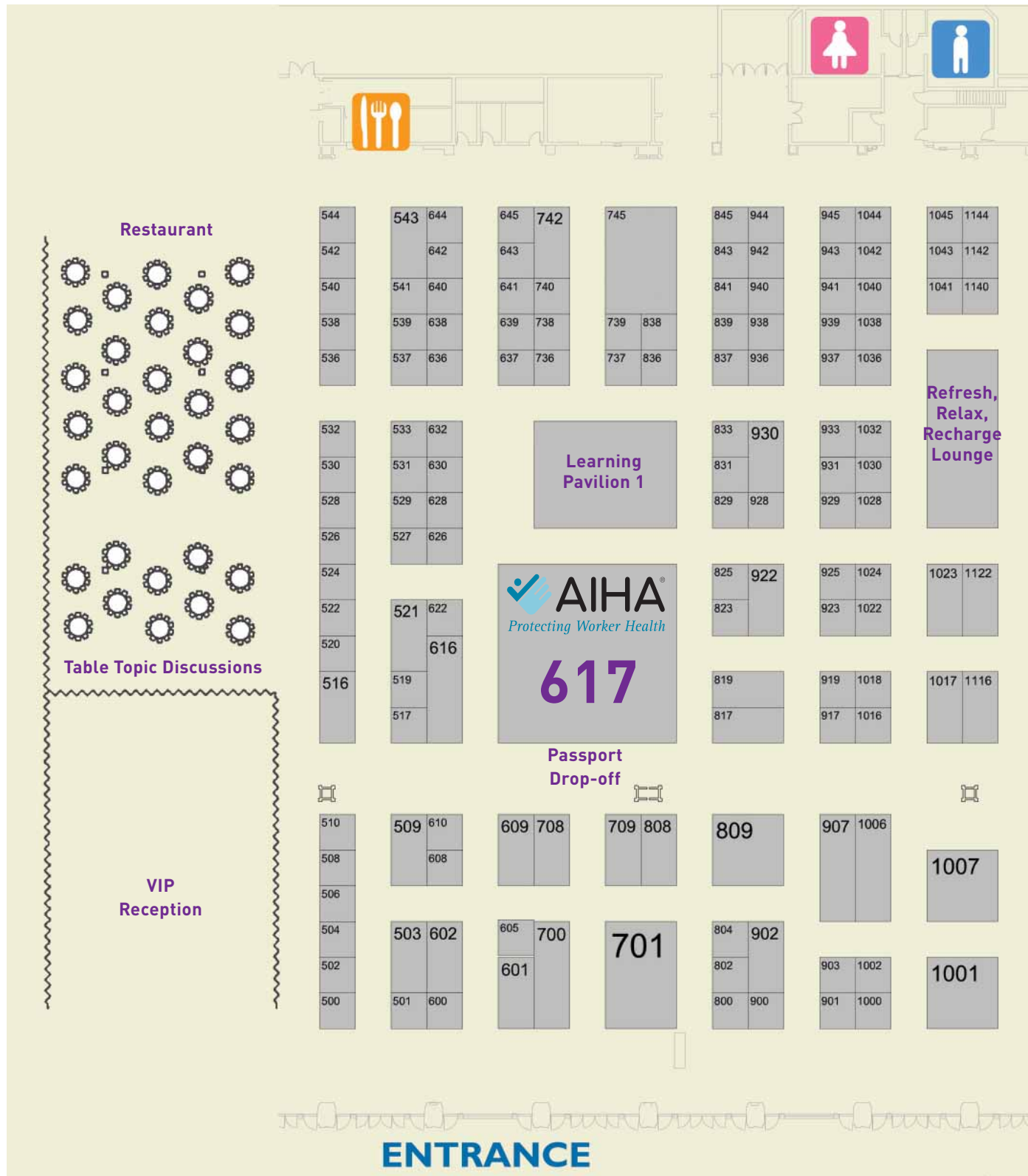
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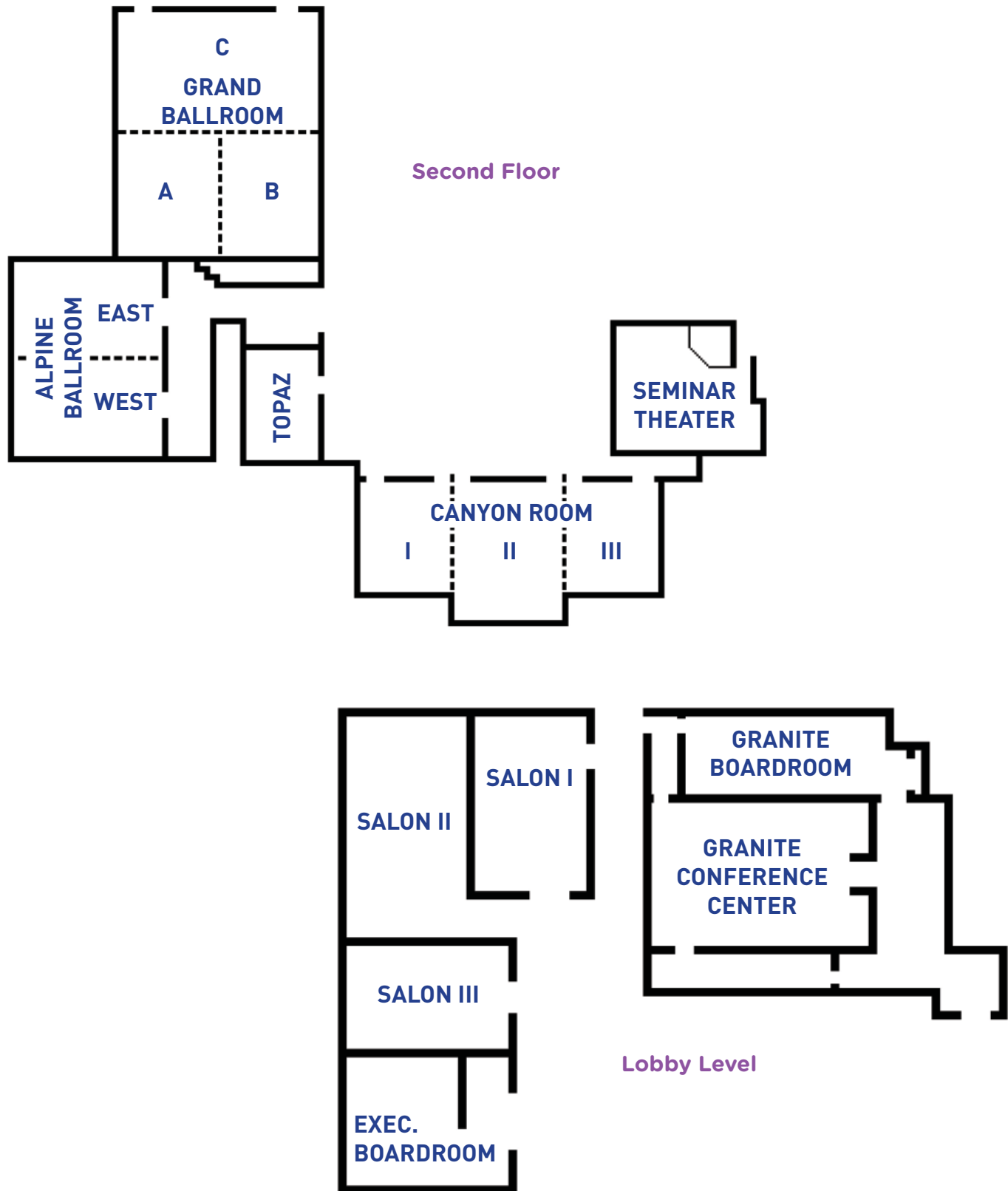
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Sunday, May 31

**Pre-Conference
Workshop: Essentials of
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8:00 AM - 5:00 PM

*(Preregistration and additional
fee required)*

SPCC, 151G

Wednesday, June 3

**Executive Leadership
Workshop: Enhancing
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and Growth through
Product Stewardship**

1:30 PM - 5:30 PM

*(Preregistration and additional
fee required)*

SPCC, 151A/B/C/G

Monday, June 1

10:00 AM - 11:30 AM

STEWARDSHIP OPENING SESSION

**REACH: 8 Years Later – Perspectives on Implementation
Challenges and Change of Practices, SPCC, 150A/B/C/G**

The European Union regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) entered into force on June 1, 2007. Eight years later, many key steps have been implemented or initiated, including a pre-registration phase, several registration waves, evaluations of substances and registration dossiers, and site inspections.

During this opening session, the panel of speakers will provide their broad and diverse perspective on REACH and the challenges faced by industry and regulators when implementing one of the most complex product regulations as well as discuss the change of practices driven by REACH.

Christel Musset, Director of Registration, European Chemicals Agency – ECHA

Klaas den Haan, Science Executive, Petroleum Products & Safety, Concawe

Herb Estreicher, JD, PhD, Partner, Keller and Heckman LLP

Patrice Szczygiel, REACH Manager, ExxonMobil Chemical Company

Monday, June 1

Noon - 12:30 PM

EXPRESS SESSIONS

Playing to Beat the Banned

SPCC, 150A/B/C/G

After over half a decade as a favored food packaging product, polystyrene foam (often called “Styrofoam”) has been banned in several coastal municipalities across the U.S. The basis for most of these bans is litter issues or the misconception that polystyrene foam is not recyclable. However, banning a single product does not address the real problem, which is behavioral in nature. This session will show how an industry banded together to demonstrate and promote recycling and repurposing of foam, and will cite pitfalls and successes along the path of changing the dialogue and opportunities for a beleaguered product.

Kristen Mertins, Global Styrene Business Development Manager, Shell Chemical, LP

OELs as the Ultimate Product Risk Management Tool: A Call to Action

SPCC, 150D/E/F

Chemical manufacturers may face negative consequences if more isn't done to support the development of new Occupational Exposure Limits (OELs) and ensure existing OELs remain valid in light of current available data, especially when more and more of that data is being placed into the public domain. This session will explore the use of OELs as one of the most effective tools for chemical manufacturers to manage product risk throughout a substance's industrial life cycle. Attendees will be asked to examine and prioritize their current product portfolios to identify substances where the OEL or measurement methods are not sufficiently valid.

John Mikan, CIH, President, Experien Health Sciences, Inc.

Take Back and Recycling Requirements in Latin America: A Challenge for Electrical & Electronic Device Producers

SPCC, 151A/B/C

Latin American countries are becoming more of the focus of manufacturers of electrical and electronic devices as their economies have been developing steadily in the last years. Successful

market access is connected to and depends upon the awareness and fulfillment of local producer obligations even if a product is imported by a local distributor. Otherwise, producers risk that the products could be stopped at customs. In recent years, Latin American countries have put a number of legal requirements targeting producers and addressing environmental issues into place. Among the obligations are those that apply to both the design and the end-of-life of a product. This session will give an overview about take back and recycling legislation and will also show the complexity of regulatory requirements and the challenge for producers to be aware of the various national requirements.

Ofira Varga, Senior Consultant, 1WEEE Corp/1cc GmbH

12:30 - 2:00 PM

LUNCH

As the conference gets underway, you'll have an opportunity to meet and share experiences with others during an extended lunch break. Visit the AIHce Expo or explore downtown Salt Lake City.

2:00 PM - 3:00 PM

TECHNICAL SESSIONS

Product Stewardship & Sustainability: In Alignment or Conflict – Informed Decision Making and Insights

SPCC, 150A/B/C/G

As manufacturers, retailers, and end users seek to decrease solid waste generation and increase recycling / re-purposing of products at end of life, necessary and surprising tensions arise between stewardship and sustainability objectives. In this session, case studies will address intended and unintended impacts of “greener product designs,” ingredient substitutions and use of recycled content in food-contact packaging, countertop surfaces; molded plastic pallets; reprocessing post-consumer containers into new containers; “preservative-free” products; and compostable packaging. Stewardship assessments of re-processing and of end-use impact will be reviewed along with regulatory hurdles encountered – including suitable

purity & product safety assessments, ingredient transparency, GMP, TSCA, and marketing claims.

Jonathan Hellerstein, CIH, CSP, Senior Lead Global Product Stewardship, MeadWestvaco

Gavin Thompson, PhD, Principal, ENVIRON International Corporation

Current Perspectives in Food-Contact Regulations

SPCC, 150D/E/F

Food-contact regulations are a key area of interest for those companies that manufacture products that are used in packaging applications, as well as those companies that manufacture final food packaging articles or are in the supply chain. Food-contact regulations continue to evolve globally and customer needs and demands for compliant products continue to grow. This session will focus on the U.S. regulations as a framework, which will include both a case study of the issues faced when a potential contamination/adulteration of a product event occurs and current “hot topics” in the food contact regulatory arena. A review of the emerging food-contact regulatory regimes will also be provided, including China, Japan, India and MERCOSUR.

Devon Hill, Partner, Keller & Heckman, LLP

Holly Foley, Scientist, Keller & Heckman, LLP

Adaptability of a Product Stewardship Program to Changing Business Portfolios

SPCC, 151A/B/C

Is your company or industry undergoing significant change? Does the change include the acquisition of new products, business portfolios or different technologies? Are you trying to understand what it will mean to an already established product stewardship program? This session will cover the transition of one company from largely a chemical industry to a company with a portfolio of agriculture, food and materials based businesses. It will also illustrate how the existing product stewardship program needed to change and, of equal or more importance, what has not needed to change.

Steve Benoit, Product Stewardship Competency Leader, E.I. du Pont de Nemours Company

STEWARDSHIP PROGRAM

3:30 PM – 4:00 PM

EXPRESS SESSIONS

Attracting the Next Generation of Product Stewards

SPCC, 150A/B/C/G

The product stewardship role can be difficult to grasp. 3M has established a strong culture around expanding the knowledge and network of employees, particularly new employees. This session will focus on how a new product steward at 3M is given opportunities to expand their horizons while promoting and educating other technical employees about the important role the product steward plays in business success. Personal stories will emphasize how collaborative efforts can benefit employees' understanding and also gives companies insight to attract new employees to the product stewardship role by promoting outside of the regulatory function to create the links between Environmental, Health and Safety and businesses.

Abbey Carson, Regulatory Affairs Analyst, 3M Company

Supporting Sustainability through Product Exposure Risk Assessment and Management Programs

SPCC, 150D/E/F

With increased customer awareness of sustainability and expectation for safe products, it's more important than ever to ensure a good understanding of

potential exposures to customers and ultimately exposure risk management for product use. Product exposure risk assessment and management programs can support important aspects of sustainability programs and understanding of product exposure risk. The effectiveness of these programs many times can rely on facilitating partnerships of key stakeholders and technical functions, including product stewardship, toxicology, industrial hygiene, research and engineering. This session will explore the process used to understand, define, and implement a product exposure assessment process at a large company and the challenges that were identified and addressed during this process.

Ann Lori, CIH, CSP, Product Exposure Risk Manager, 3M Company

Stuck in the Middle: The Challenge of Getting and Sharing Regulatory Information

SPCC, 151A/B/C

The combination of complex downstream regulatory pressures and company-driven sustainability leads manufacturers to require increasingly detailed information about the materials they purchase from their suppliers. These same manufacturers are simultaneously barraged by their customers for an increasing amount of information about the products they sell. Collecting, validating, storing, and communicating this data in a meaningful way is essential for a successful compliance program. This session will discuss the challenges manufacturers face

when they are stuck in the middle of the data pipeline and practical solutions. The challenges of raw material management will be discussed along with possible solutions to these challenges.

Angela Wutz, Assistant General Manager, Pace Analytical Services, Inc.

Steve Ernst, Client Services Manager, Pace Analytical Services, Inc.

Cody Olson, Client Services Manager, Pace Analytical Services, Inc.

4:00 PM – 5:30 PM

OPENING RECEPTION IN THE EXPO

SPCC, Exhibit Halls C/D/E

As the first day winds down, stroll over to the AIHce Expo where you can relax and socialize with new colleagues and friends while touring the expo hall and enjoying excellent food and drink.

5:30 PM – 7:00 PM

STEWARDSHIP RECEPTION

SPCC, 151G

Immediately following the Opening Reception, you'll have an exclusive opportunity to socialize with other Stewardship attendees during an evening reception - a perfect opportunity to make new connections and catch up with longtime friends.

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You can also start the conversation now in the Product Stewardship Society's online discussion group. Visit ProductStewards.org/Community to get started.



Tuesday, June 2

8:00 AM – 9:00 AM

TECHNICAL SESSIONS

Product Stewardship in the Era of Hazard-Based Ingredient Listings: Responses for the New Reality

SPCC, 150A/B/C/G

Today's regulatory and consumer perception landscape demands product stewardship attention on hazard-based listings of chemicals used to manufacture products. The goal of more accessible information on product safety has fueled a drive toward simplification with ingredients being prioritized initially based on hazard characteristics alone, leaving exposure potential and a complete risk analysis for subsequent consideration. States have incorporated hazard-based chemical lists into product safety regulations and a number of countries appear to be following the EU REACH model, which imposes substantial burdens upon product stewards seeking to have factors other than chemical hazard addressed. This session will examine product regulatory programs that have released lists of chemicals for disclosure or substitution, and responses from reformulation to risk-based demonstrations when you find your key ingredient has "made the list."

Robert DeMott, PhD, DABT, Principal Toxicologist, ENVIRON International

Robert Skoglund, PhD, CIH, DABT, Senior Laboratory Manager, 3M Company

Linda Dell, MS, Senior Epidemiologist, ENVIRON International

The "New" Old TSCA: How is Implementation of Existing TSCA Rules Changing?

SPCC, 150D/E/F

With only slow progress being made in Congress to reform the current TSCA law, the EPA has been working within existing regulations to enhance their review and assessment of new and existing chemicals and making information on chemicals more publicly accessible. In the last few years, EPA has increased scrutiny of new chemicals, increased the number of Significant New Use Rules (SNURs) regulating new chemicals, implemented risk assessment of existing chemicals under the Work Plan Chemical program, and issued new rules/proposed rules

for testing and reporting (including the 2012 Chemical Data Report – CDR). This session will explore what triggers EPA concerns when reviewing new chemicals, what can be done to position new chemicals for successful review, what a SNUR is and what it means in marketing a new product, and what the Work Plan Chemicals are and what type of reviews have been completed.

Imogene Treble, PhD, Managing Scientist, Exponent, Inc.

Elaine Freeman, MS, DABT, Managing Scientist, Exponent, Inc.

Electro-Mechanical Material Compliance: Implementing a Compliance Management Solution

SPCC, 151A/B/C

Electrical and electronic products have unique requirements when it comes to ensuring material compliance. Composition/compliance data must be shared, accessible, up to date, etc. Without a sustainable solution, a compliance process could quickly spiral out of control. Presenters will share their journey of successfully implementing an IT solution for material compliance management, including packaging their needs in such a way that gained the attention of key corporate decision makers, gathering key stakeholder support, project funding, ongoing funding, resources and project management. This session will also showcase details of their project management documentation, sub-team activities, deployment prioritization, training plan, and key learnings.

Linda Eichinger, Product Steward, 3M Company

Brad Dieringer, Product Steward, 3M Company

10:00 AM – 11:00 AM

TECHNICAL SESSIONS

Product Stewardship Management Systems

SPCC, 150A/B/C/G

Product stewardship is a cross-functional discipline that extends across the entire organization as well the entire value stream. This presentation highlights techniques that can be used to develop and implement a new product stewardship management system or to refine and

improve an existing program. Techniques include conducting a SWOT analysis, RACI as well as creating a risk map to identify priorities. This session includes the critical elements of a product stewardship management system, including governance (standards and SOP's) as well as awareness training for all aspects of the value stream. The concept of a chief product steward is also highlighted.

Randy Deskin, PhD, DABT, ERT, Managing Director, Deskin Associates

The Circular Economy as a Driver for Product Stewardship Innovation

SPCC, 150D/E/F

The Circular Economy is a concept that has been gaining momentum over the past several years and is now being discussed as a basis for EU environmental policy. It is a system that is restorative or regenerative by intention and is designed to eliminate waste and make better use of resources. At Hewlett-Packard, the Circular Economy is a useful framework for extending how they think about product stewardship beyond individual product designs to creating closed-loop materials cycles and product-as-service models that maximize resource efficiency. This session will show how HP is incorporating Circular Economy concepts into its business strategies and how other companies can use these concepts to enhance the business value and effectiveness of their product stewardship programs.

John Ortiz, Product Stewardship Manager for Desktop & Enterprise Printing, Hewlett-Packard Company

10:00 AM – 12:30 PM

DEEP DIVE SESSION

GHS Implementation: The First Wave after the Tsunami – The Work Is Just Beginning

SPCC, 151A/B/C

This interactive session will allow participants to discuss challenges ahead for the continued transition to the GHS. Prior to this conference, attendees will be surveyed on SDS management development and communication issues. Based on these results, presenters will introduce topics including customer and management communication, restricted and controlled chemicals, international

STEWARDSHIP PROGRAM

differences in classification, data gaps and classification impacts, perception of changes in risks and hazards of products, and practical labeling and SDS revision challenges. Attendees will discuss and identify key issues, gaps, solutions and future resource needs that can be addressed by the Product Stewardship Society.

Denese Deeds, CIH, Senior Consultant, Industrial Health & Safety Consultants, Inc.

Jonathan Hellerstein, CIH, CSP, Senior Lead Global Product Stewardship, MeadWestvaco

Bernie Lindquist, PhD, DABT, Senior Toxicologist, Ashland Inc.

11:30 AM – 12:30 PM

TECHNICAL SESSIONS

Product Stewardship's Tipping Point: Transition to Business Value

SPCC, 150A/B/C/G

The focus of product stewardship programs in many companies has been addressing compliance requirements imposed by various global laws. As these programs mature, these companies realize greater value can be achieved by aligning product stewardship efforts within the businesses. Engaging the businesses allows for greater focus on product development and working with the customers in the use of products. Performance metrics shift from compliance to cost of product sold, increased sales and customer satisfaction. Product stewardship becomes an integral part of the business and supports the advances with new products and markets.

John Harris, Global Product Stewardship Coordinator, Eli Lilly & Company

Legal and Stewardship Issues Associated with EPDs and HPDs

SPCC, 150D/E/F

Environmental Product Declarations (EPD) and Health Product Declarations (HPD) are increasingly being used to disclose environmental and health hazard information about products, and to demonstrate the declarer's commitment to sustainability and transparency. Whether used as a business-to-business or business-to-consumer declaration, the preparation and dissemination of these declarations have distinct legal, commercial, and transactional implications that need

to be observed consistently. This presentation will address what these declarations are, why they are legally and commercially relevant, and tips for preparing useful and legally defensible declarations.

Lynn Bergeson, Managing Partner, Bergeson & Campbell, PC

12:30 PM – 2:00 PM

LUNCH

Continue conversations outside of the meeting room. Join your fellow attendees for lunch in the AIHce Expo or venture out with your group to downtown Salt Lake City.

2:00 PM – 3:00 PM

TECHNICAL SESSIONS

Endocrine Disruptors: Regulatory Requirements, Implications, and Options

SPCC, 150A/B/C/G

Regulatory bodies around the world are developing requirements to evaluate the potential for chemicals to affect the endocrine system of humans and wildlife. In the U.S., List 1 testing focused on pesticides. However, List 2 includes 68 non-pesticide chemicals, some of which will likely be subject to Test Orders. At an estimated screening cost of over \$1 million dollars per chemical, companies need to understand the implications and options. What is OSRI and how can that obviate testing? What endpoints can help preempt testing? What lessons have been learned from the List 1 chemicals about Tier 1 testing, and how can weight of evidence evaluations be used? What is the current status of Tier 2 testing? What is the role of computational toxicology and predictive exposure assessment? What is the status of European regulation? These subjects will be explored with a focus on practical application.

Jane Staveley, MSPH, Senior Managing Scientist, Exponent

Barbara Neal, DABT, Senior Managing Scientist, Exponent

Elaine Freeman, MS, DABT, Managing Scientist, Exponent

Preparing for 2018: Unraveling the Myths of Joint Registrations

SPCC, 150D/E/F

The last REACH phase-in registration deadline is fast approaching and along with it, a tremendous number of registrations. Though there has been much

discussion of the challenges facing the 2018 lead registrants, there is a general misconception that joint registrations will be simple. This session will unravel the myths around joint registrations by sharing lessons learned from working on a broad array of substances and sectors and will focus on what issues were encountered in substance identity, in the technical dossier, the Letter of Assess, and what steps were taken to resolve them. The importance of ECHA's targeted compliance efforts and their impact on future proofing your registration will also be reviewed.

Beth Bidstrup, CIH, Director, H2 Compliance Inc.

2:00 PM – 4:30 PM

DEEP DIVE SESSION

Value Chain Outreach: How to Balance Transparency, Relevancy of Information and Innovation?

SPCC, 151A/B/C

Transparency is a common theme in the marketplace today. From certification labels to eco-rankings and right-to-know questions, many brands are making their product attributes more transparent. The disclosure of ingredients is increasingly used as a key attribute in product selection in some market segments. This call for disclosure has resulted in a number of challenges, questions, and concerns impacting both the value chain and consumers. For example, "What is the most relevant information needed by downstream customers to manage potential health and environmental effects? What is the right balance between information disclosure and protection of confidential business information and trade secrets? What is the best way to communicate to consumers on ingredients, both in terms of product safety and environmental impact?"

This session will bring together a number of organizations at the forefront of this issue and will include many of the current solutions offered by the marketplace for disclosure.

Steve Potlock, Planning & Improve Manager, PS&RA, ExxonMobil Chemical Company

Wednesday, June 3

8:00 AM - 9:00 AM

TECHNICAL SESSIONS

"Retail Regulation" in 20:20 Hindsight

SPCC, 150A/B/C/G

Why do certain issues ignite public outcry that leads to "retail regulation" and others do not? With the benefit of 20:20 hindsight, this case study will examine the scientific and regulatory context for the "Ban the Bead" campaign against microbeads in personal cleansing products. In an interactive format, attendees will have an opportunity to explore and discuss why such products evoked a passionate public outcry while analogous materials have not.

Kathleen Sellers, PE, Vice President, ARCADIS

The Development of a Restricted Substance List for a Multinational-Multiproduct Organization

SPCC, 150D/E/F

How can a globally marketed company deal with multiple regulatory requirements, selling thousands of SKUs, sourced from thousands of suppliers located all over the world? This case study will seek to share lessons learned working with a large retail organization that sold a huge array of products, all of which were impacted by chemical regulatory requirements. With the team seeking to develop a process that could allow the organization to have confidence in their products and supply chain for the next 15 to 20 years, this session will focus on the practical steps taken, issues encountered, solutions and how the company engaged in the program.

John Hayes, CTO, H2 Compliance

8:00 AM - 10:30 AM

DEEP DIVE SESSION

From Critical Reviews of Hazard Assessment Tools to Building a Product Evaluation Framework: Can We Bridge the Gaps with a Super Tool?

SPCC, 151A/B/C

Recent regulatory programs and retailer initiatives have created pressure

on manufacturers and designers to reconsider the chemical ingredients currently used in their products. In response, a variety of tools have been developed to aid in the chemical selection process.

This session will provide an in-depth look into the differences among existing tools used to evaluate chemicals and products. Additionally, a product evaluation framework to promote a robust assessment of chemicals and products and propose development of a super tool to accomplish the needs of sustainability practitioners and chemical and product assessors will be presented.

Julie Panko, CIH, Principal Health Scientist, Cardno ChemRisk

Kristen Hitchcock, Health Scientist, Cardno ChemRisk

Tony Kingsbury, President, T Kingsbury Consulting

9:30 AM - 10:30 AM

TECHNICAL SESSIONS

Product Stewardship Impact to Supply Chain Risk Management

SPCC, 150A/B/C/G

In today's industrial environment, the most certain item is change and increased risk to the supply chain. As companies use resilient supply chains as a competitive advantage, care needs to be taken so as not to increase the risks the supply chain already faces. Product stewardship implementation and the ever-changing world of the global regulatory environment drive actions in the supply chain that can unintentionally increase risk. For example, a common response to market country regulatory requirements is the implementation of country or region specific part numbers (PN). Although the short-term gains are immediate, the long-term risks can be significant with some not being immediately apparent. These risks include, but are not limited to, excess inventory, quality traceability, and manufacturing efficiency. This session will explore these risks by providing real life examples.

Mitch Fonda, CSCP, Senior Manager, Global Product Stewardship, Waters Corporation

The Rise of State-Based Chemicals Management Schemes

SPCC, 150D/E/F

In recent years, attempts to modernize federal management of chemicals have stalled in Congress. In the absence of federal reform, the number of states that have sought to impose their own chemical management scheme has tripled. This session will shed light on the agenda and tactics of the NGOs focused on environmental health and will focus on the rise of state-based legislative and regulatory initiatives aimed at managing chemicals in the marketplace.

Roger Bernstein, State Affairs Consultant, American Chemistry Council

Cynthia Mann, Regulatory Affairs Manager, ExxonMobil Chemical Company

11:00 AM - 12:30 PM

STEWARDSHIP CLOSING SESSION

GHS in North America: OSHA, Health Canada and Global Update

SPCC, 150A/B/C/G

The U.S. has completed the transition to the GHS and Canada has issued their final regulations. While much has been accomplished in the transition, there is still much to do. During this session, the latest information from OSHA on implementation, including new guidance documents that are available, will be presented. Additionally, the Canadian implementation of the GHS will be discussed, showing the details of the regulation and compliance dates, and an update on the status of global implementation of the GHS with an emphasis on regulatory deadlines and country-specific variations will be given.

Denese Deeds, CIH, Senior Consultant, Industrial Health & Safety Consultants, Inc.

Maureen Ruskin, Office Director, Office of Chemical Hazards - Metals, US Occupational Safety and Health Administration (OSHA)

Jason Wood, Director, Policy and Program Development, Workplace Hazardous Materials Directorate, Health Canada

Technical Sessions by Topic

Aerosols

PS401 - Poster Session 401	Monday, June 1 10:00 AM – Noon	66
RT201 - Novel Approaches in Industrial Hygiene Air Sampling	Monday, June 1 10:30 AM – 12:30 PM	20
RT210 - Welding Fume Generation, Exposure Monitoring, Assessment, and Control	Monday, June 1 2:00 PM – 5:00 PM	26
P0117 - Aerosols I	Tuesday, June 2 10:30 AM – 1:00 PM	36
RT217 - Hazardous Drugs: A Closer Look at Aerosols, Surface Sampling and Decontamination	Tuesday, June 2 2:00 PM – 4:30 PM	39
P0120 - Aerosols II	Wednesday, June 3 10:00 AM – Noon.....	46
RT234 - New Developments in Sampling and Analysis of Workplace Chemical Exposures.....	Wednesday, June 3 1:00 PM – 4:30 PM	53
SS004 - Inhaled Particles Update: Advancing the Science of Particle Deposition in the Respiratory System.....	Thursday, June 4 8:00 AM – 11:30 AM.....	61
RT247 - Occupational Hygiene in Animal Production Agriculture: New Approaches	Thursday, June 4 12:30 PM – 4:00 PM.....	64

Biological Monitoring

RT212 - Beryllium: Biological Monitoring.....	Tuesday, June 2 10:30 AM – 12:30 PM	35
P0121 - Biological Monitoring.....	Wednesday, June 3 10:00 AM – Noon.....	47

Biosafety and Environmental Microbiology

RT202 - The Ebola Virus (EBOV) Outbreak in West Africa: Occupational Health and Safety Concerns.....	Monday, June 1 10:30 AM – 12:30 PM	21
P0112 - Environmental Microbiology	Tuesday, June 2 10:30 AM – 12:30 PM	34
RT228 - Recognition, Evaluation and Control of Legionella in Building Water Systems	Wednesday, June 3 10:00 AM – 12:30 PM	50
RT235 - Occupational Hygiene in Agriculture – Exposure Controls	Wednesday, June 3 1:00 PM – 4:30 PM	53
RT247 - Occupational Hygiene in Animal Production Agriculture: New Approaches	Thursday, June 4 12:30 PM – 4:00 PM.....	64

Communication and Training

CR305 - 10 Ways to Leverage Safety Collaboration with Occupational Health Professionals	Monday, June 1 2:00 PM – 3:00 PM	35
RT209 - The Mentoring Circle: A 360 Degree View of Mentoring Programs and Relationships	Monday, June 1 2:00 PM – 5:00 PM	26
P0110 - Communications and Training Methods	Tuesday, June 2 10:30 AM – 12:30 PM	32
CR313 - Safety Training Games: Let's Play!	Tuesday, June 2 2:00 PM – 3:00 PM	39

Computer Applications

P0108 - Physical Hazards (Radiation, Vibration, Noise Control), Control Banding & Computer Apps: What a Mix!	Monday, June 1 2:00 PM – 4:40 PM	24
RT222 - Hack Hack: Who's There?	Tuesday, June 2 2:00 PM – 5:00 PM	41

Confined Spaces

P0105 - Advances in Construction and Confined Space Safety.....	Monday, June 1 10:30 AM – 12:50 PM	21
CR319 - What's New in Confined Space Entry: A Look at the NFPA 350 Guide for Safe Confined Space Entry and Work	Wednesday, June 3 11:00 AM – Noon.....	50
RT231 - Notable Confined Space Events and Issues	Wednesday, June 3 1:00 PM – 4:00 PM	52

Construction

P0105 - Advances in Construction and Confined Space Safety.....	Monday, June 1 10:30 AM – 12:50 PM	21
RT210 - Welding Fume Generation, Exposure Monitoring, Assessment, and Control	Monday, June 1 2:00 PM – 5:00 PM	26
RT221 - Total Worker Health in Construction.....	Tuesday, June 2 2:00 PM – 5:00 PM	40

RT241 - Buy Quiet and Other Noise Control Methods in Construction.....	Thursday, June 4 8:00 AM – 10:30 AM.....	61
RT246 - Spray Polyurethane Foam: Best Practices for Indoor Air Quality	Thursday, June 4 12:30 PM – 3:00 PM.....	64

Control Banding

SS001 - Occupational Exposure Banding: The Solution for the Glacial Pace of OELs	Monday, June 1 10:30 AM – 12:50 PM	21
P0108 - Physical Hazards (Radiation, Vibration, Noise Control), Control Banding & Computer Apps: What a Mix!	Monday, June 1 2:00 PM – 4:40 PM	24
RT213 - How Are Occupational Exposure Bands Being Used in Practice?	Tuesday, June 2 10:30 AM – 12:30 PM	36
RT225 - Control Banding Applications in Laboratory Operations.....	Wednesday, June 3 10:00 AM – Noon.....	49

Emerging Issues

RT202 - The Ebola Virus (EBOV) Outbreak in West Africa: Occupational Health and Safety Concerns.....	Monday, June 1 10:30 AM – 12:30 PM	21
SP04 - Industrial Hygiene and Total Worker Health™.....	Monday, June 1 2:00 PM – 4:00 PM	23
SS002 - Progress and Key Considerations for Nanotechnology Development and Stewardship	Monday, June 1 2:00 PM – 4:30 PM	24
RT206 - Addressing Unique Industrial Hygiene Challenges in Pharmaceutical Industries	Monday, June 1 2:00 PM – 5:00 PM	25
General Session - Health and Safety Implications of the Fissured Workplace: A Conversation	Tuesday, June 2 8:00 AM – 9:00 AM	32
SP07 - NIOSH Response to Climate Change Challenge	Tuesday, June 2 11:00 AM – 12:00 PM	36
RT216 - NIOSH Health Hazard Evaluations: Results of Interesting and Unusual Health Hazard Evaluations.....	Tuesday, June 2 1:30 PM – 5:30 PM	38
RT221 - Total Worker Health in Construction.....	Tuesday, June 2 2:00 PM – 5:00 PM	40
RT227 - Occupational Hygiene and Safety in Africa	Wednesday, June 3 10:00 AM – Noon.....	49
RT239 - Electronic Cigarettes in the Indoor Environment.....	Wednesday, June 3 5:30 PM – 7:30 PM	55

Engineering

P0104 - Hazard Prevention and Engineering Controls: Traditional and Modern Approaches	Monday, June 1 10:30 AM – 12:30 PM	20
RT208 - Laboratory Exhaust Design and Renovation: What Industrial Hygienists Need to Know....	Monday, June 1 2:00 PM – 5:00 PM	26
RT218 - Computational Fluid Dynamics in Industrial Hygiene: Applications for Exposure Assessment and Control.....	Tuesday, June 2 2:00 PM – 4:30 PM	40
RT244 - Combustible Dust Risk Management: The WHY and the HOW	Thursday, June 4 9:00 AM – Noon.....	62
RT248 - Prevention through Design (PtD) Ergonomics	Thursday, June 4 1:00 PM – 4:00 PM	64

Environmental Issues

CR304 - Stormwater Management: Stemming the Tide	Monday, June 1 11:30 AM – 12:30 PM	22
CR306 - Managing Hazardous Waste Treatment and Disposal Risks	Monday, June 1 2:00 PM – 3:00 PM	23
CR309 - Industrial/Occupational Hygienists: Working “Outside” the Box	Tuesday, June 2 10:30 AM-11:30 AM.....	32
SP07 - NIOSH Response to Climate Change Challenge	Tuesday, June 2 11:00 AM – 12:00 PM	36
P0126 - Environmental and International EH&S Issues	Wednesday, June 3 10:00 AM – 12:20 PM	50
CR318 - Industrial Ecology.....	Wednesday, June 3 11:00 AM – Noon.....	50
RT240 - The “Environmental Hat”: The Role of the Industrial Hygienist in Environmental Projects	Wednesday, June 3 5:30 PM – 7:30 PM	58

Technical Sessions by Topic

Ergonomics

RT205 - The AIHA® Value Strategy and Return-on-Investment for Ergonomics Initiatives	Monday, June 1 2:00 PM – 4:30 PM	24
P0113 - Ergonomics: Sprains, Strains, and Strategies	Tuesday, June 2 10:30 AM – 12:30 PM	34
RT220 - Vibration: the Forgotten Risk Factor	Tuesday, June 2 2:00 PM – 5:00 PM	40
SS003 - Physical Risk Factors and Musculoskeletal Disorders: A Review of Findings from the NIOSH Field-Based Studies	Wednesday, June 3 1:00 PM – 3:30 PM	52
RT235 - Occupational Hygiene in Agriculture – Exposure Controls	Wednesday, June 3 1:00 PM – 4:30 PM	53
RT248 - Prevention through Design (PtD) Ergonomics	Thursday, June 4 1:00 PM – 4:00 PM	64

Ethics

CR314 - Ethics for the EHS Professional	Tuesday, June 2 3:30 PM – 4:30 PM	42
RT232 - Ethics in Healthcare	Wednesday, June 3 1:00 PM – 4:30 PM	52

Exposure Assessment Strategies

PS401 - Poster Session 401	Monday, June 1 10:00 AM – Noon	66
SS001 - Occupational Exposure Banding: The Solution for the Glacial Pace of OELs	Monday, June 1 10:30 AM – 12:50 PM	21
P0106 - Exposure Assessment Strategies: Something for Everyone	Monday, June 1 10:30 AM – 1:30 PM	22
RT211 - PCBs in the Built Environment: Exposure Assessment and Mitigation Strategies	Monday, June 1 2:00 PM – 5:30 PM	27
RT213 - How Are Occupational Exposure Bands Being Used in Practice?	Tuesday, June 2 10:30 AM – 12:30 PM	36
P0119 - Exposure Assessment Strategies: Modeling	Tuesday, June 2 2:00 PM – 4:00 PM	39
RT218 - Computational Fluid Dynamics in Industrial Hygiene: Applications for Exposure Assessment and Control	Tuesday, June 2 2:00 PM – 4:30 PM	40
SP09 - Bayesian and Professional Judgment Users Group	Wednesday, June 3 10:00 AM – Noon	49
SP10 - Donald E. Cummings Award Lecture: Using Isometric Particles and Fibers in Lung Tissue of Workers as Complementary Analysis to Improve Knowledge and Understand Workers' Exposure	Wednesday, June 3 12:30 PM – 1:30 PM	51
RT229 - Quantifying Dermal Exposure: Comparisons of Sampling Methods to Assessment Models	Wednesday, June 3 1:00 PM – 3:30 PM	51
SS004 - Inhaled Particles Update: Advancing the Science of Particle Deposition in the Respiratory System	Thursday, June 4 8:00 AM – 11:30 AM	61
SP12 - Train the Trainer: Improving IH Exposure Judgments	Thursday, June 4 8:00 AM – 5:00 PM	62
RT249 - Isocyanates: Key Practical Information for the Industrial Hygienist	Thursday, June 4 1:00 PM – 4:30 PM	65

Hazardous Chemicals

PS402 - Poster Session 402	Monday, June 1 2:00 PM – 4:00 PM	66
RT204 - Oil and Gas Wellhead Exposure Pathways	Monday, June 1 2:00 PM – 4:30 PM	23

Healthcare

RT202 - The Ebola Virus (EBOV) Outbreak in West Africa: Occupational Health and Safety Concerns	Monday, June 1 10:30 AM – 12:30 PM	21
P0114 - Healthcare Industries	Tuesday, June 2 10:30 AM – 12:30 PM	35
RT217 - Hazardous Drugs: A Closer Look at Aerosols, Surface Sampling and Decontamination	Tuesday, June 2 2:00 PM – 4:30 PM	39
RT232 - Ethics in Healthcare	Wednesday, June 3 1:00 PM – 4:30 PM	52

Incident Preparedness and Response

CR320 - Why Incident Management Matters	Wednesday, June 3 1:00 PM – 2:00 PM	51
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Techinal Sessions by Topic

Indoor Environmental Quality

P0102 - Assessment, Evaluation, and Control of Indoor Environmental Issues	Monday, June 1 10:30 AM – 12:30 PM	20
PS402 - Poster Session 402	Monday, June 1 2:00 PM – 4:00 PM	66
RT211 - PCBs in the Built Environment: Exposure Assessment and Mitigation Strategies	Monday, June 1 2:00 PM – 5:30 PM	27
P0111 - Chemical Characterizations of Contaminants in Indoor Environments:		
Sampling and Analysis	Tuesday, June 2 10:30 AM – 12:30 PM	34
RT228 - Recognition, Evaluation and Control of Legionella in Building Water Systems	Wednesday, June 3 10:00 AM – 12:30 PM	50
RT239 - Electronic Cigarettes in the Indoor Environment	Wednesday, June 3 5:30 PM – 7:30 PM	55
RT246 - Spray Polyurethane Foam: Best Practices for Indoor Air Quality	Thursday, June 4 12:30 PM – 3:00 PM	64

Industrial Hygiene General Practice

IL03 - Unsolved IH Mysteries Workshop – SOLD OUT	Monday, June 1 12:30 PM – 2:00 PM	23
SP03 - ABIH Forum	Monday, June 1 2:00 PM – 3:30 PM	23
RT207 - Interesting Health Cases: Facts from the Field (Previously known as the Glen Williamson Forum)	Monday, June 1 2:00 PM – 5:00 PM	25
IL05 - Unsolved IH Mysteries Workshop – SOLD OUT	Tuesday, June 2 12:30 PM – 2:00 PM	37
P0118 - IH General Practice I	Tuesday, June 2 1:30 PM – 5:30 PM	37
RT216 - NIOSH Health Hazard Evaluations: Results of Interesting and Unusual Health Hazard Evaluations	Tuesday, June 2 1:30 PM – 5:30 PM	38
RT219 - Industrial Hygiene and Safety in Non-traditional Industries	Tuesday, June 2 2:00 PM – 5:00 PM	40
P0127 - IH General Practice II	Wednesday, June 3 1:00 PM – 5:00 PM	54

Interactive

IL01 - Ask the Expert with Alison Levine	Monday, June 1 10:30 AM – 11:30 AM	18
IL02 - Student and Early Career Professionals Table Topics	Monday, June 1 Noon – 1:00 PM	22
IL03 - Unsolved IH Mysteries Workshop – SOLD OUT	Monday, June 1 12:30 PM – 2:00 PM	23
IL04 - Ask the Expert: Dr. David Weil and Jordan Barab	Tuesday, June 2 10:30 AM – 11:30 AM	37
IL05 - Unsolved IH Mysteries Workshop – SOLD OUT	Tuesday, June 2 12:30 PM – 2:00 PM	37
IL06 - Ignite: Enlighten Me but Make it Quick! Offering Enlightenment and Knowledge – In a Hurry!	Tuesday, June 2 2:30 PM – 4:00 PM	41
IL07 - The Un-Session	Wednesday, June 3 10:00 AM – Noon	46
IL08 - Global Industrial/Occupational Hygiene Issues Table Topic Discussions	Wednesday, June 3 Noon – 1:00 PM	51

International

RT203 - Current Safety and Health Issues in International Mining	Monday, June 1 10:30 AM – 1:00 PM	21
RT206 - Addressing Unique Industrial Hygiene Challenges in Pharmaceutical Industries	Monday, June 1 2:00 PM – 5:00 PM	25
RT227 - Occupational Hygiene and Safety in Africa	Wednesday, June 3 10:00 AM – Noon	49
P0126 - Environmental and International EH&S Issues	Wednesday, June 3 10:00 AM – 12:20 PM	50
IL08 - Global Industrial/Occupational Hygiene Issues Table Topic Discussions	Wednesday, June 3 Noon – 1:00 PM	51

Ionizing Radiation

P0108 - Physical Hazards (Radiation, Vibration, Noise Control), Control Banding & Computer Apps: What a Mix!	Monday, June 1 2:00 PM – 4:40 PM	24
RT230 - Radiation Safety in the Oil and Gas Industry	Wednesday, June 3 1:00 PM – 3:30 PM	52

Techinal Sessions by Topic

Laboratory Health and Safety

RT208 - Laboratory Exhaust Design and Renovation: What Industrial Hygienists Need to Know.....	Monday, June 1 2:00 PM – 5:00 PM	26
P0115 - Laboratory Health and Safety	Tuesday, June 2 10:30 AM – 12:30 PM	35
SP15 - AIHA Laboratory Assurance Programs: Quality Programs Value Proposition for Both Participants and Customers.....	Tuesday, June 2 1:30PM – 5:00PM.....	37
RT225 - Control Banding Applications in Laboratory Operations.....	Wednesday, June 3 10:00 AM – Noon.....	49
RT233 - Improving Safety Culture through Lessons Learned	Wednesday, June 3 1:00 PM – 4:30 PM.....	53
RT242 - Vivarium Risk Assessments in the Research Environment.....	Thursday, June 4 8:00 AM – Noon.....	61

Legal, Regulatory, Guidelines, and Standards

CR303 - Preventing Ammonium Nitrate Explosions NFPA 400 Hazardous Materials Code	Monday, June 1 10:30 AM – 11:30 AM	18
RT207 - Interesting Health Cases: Facts from the Field (Previously known as the Glen Williamson Forum).....	Monday, June 1 2:00 PM – 5:00 PM	25
CR307 - Implementing the New NFPA 70E (2015 Edition) Electrical Safety Requirements.....	Monday, June 1 3:30 PM – 4:30 PM	27
CR315 - Combustible Dust Hazard Identification and Control: NFPA Standards Overview	Tuesday, June 2 3:30 PM – 4:30 PM.....	42
RT237 - Mock Trial: Industrial Hygiene Expert Witness Testimony in Deposition and Trial.....	Wednesday, June 3 1:00 PM – 5:00 PM.....	54

Management

Opening General Session - On the Edge: The Art of High-Impact Leadership	Monday, June 1 8:00 AM – 9:30 AM	18
CR301 - EHS Leadership NOW	Monday, June 1 10:30 AM – 11:30 AM.....	18
IL01 - Ask the Expert with Alison Levine	Monday, June 1 10:30 AM – 11:30 AM.....	18
P0107 - Joint Session on Management, Stewardship, and Incident Preparedness	Monday, June 1 2:00 PM – 4:40 PM	24
CR310 - EHS Accountability and Responsibility: Maintaining Focus on Delivering Results Amidst Organizational Change	Tuesday, June 2 11:30 AM – 12:30 PM	36
CR312 - A Practical Approach to World-Class EHS Leading Indicators: Cross-Industry Lessons from the Best of the Best.....	Tuesday, June 2 2:00 PM – 3:00 PM	39
RT223 - OEHS Management Skills for the 21st Century	Tuesday, June 2 2:00 PM – 5:00 PM.....	41
CR316 - Taking Process Safety to the Next Level: Organizational Culture and Organizational Capability.....	Wednesday, June 3 10:00 AM – 11:00 AM	46
RT226 - Managing Fall Protection Programs for Optimal Safety and Efficiency.....	Wednesday, June 3 10:00 AM – Noon.....	49
CR322 - Safety Leadership and Engagement: Why It's Important and How to Do It	Wednesday, June 3 5:30 PM – 6:30 PM.....	55
CR325 - Risky Business: Decision Theory and Implications for Health and Safety	Thursday, June 4 12:30 PM – 1:30 PM.....	64

Nanotechnology

SS002 - Progress and Key Considerations for Nanotechnology Development and Stewardship	Monday, June 1 2:00 PM – 4:30 PM	24
P0122 - Nanotechnology: New Developments in Exposure Assessment, Sampling Technology, and Respirator Protection.....	Wednesday, June 3 10:00 AM – Noon.....	48

Noise

PS402 - Poster Session 402	Monday, June 1 2:00 PM – 4:00 PM	66
P0109 - Noise: Exposure Assessment and Control.....	Monday, June 1 2:00 PM – 5:00 PM	25
RT241 - Buy Quiet and Other Noise Control Methods in Construction.....	Thursday, June 4 8:00 AM – 10:30 AM.....	61

Occupational and Environmental Epidemiology

PS403 - Poster Session 403	Tuesday, June 2 10:00 AM – Noon.....	67
RT214 - Cancer and Non-Cancer Endpoints in Asbestos Risk Assessment.....	Tuesday, June 2 1:30 PM – 5:30 PM.....	38
RT224 - Industrial Hygiene and Occupational Health in Mining	Tuesday, June 2 2:00 PM – 5:30 PM.....	41

Techinal Sessions by Topic

SS003 - Physical Risk Factors and Musculoskeletal Disorders: A Review of Findings from the NIOSH Field-Based Studies.....	Wednesday, June 3 1:00 PM – 3:30 PM.....	52
RT249 - Isocyanates: Key Practical Information for the Industrial Hygienist.....	Thursday, June 4 1:00 PM – 4:30 PM.....	65

Oil and Gas Industry

RT204 - Oil and Gas Wellhead Exposure Pathways.....	Monday, June 1 2:00 PM – 4:30 PM.....	23
RT230 - Radiation Safety in the Oil and Gas Industry.....	Wednesday, June 3 1:00 PM – 3:30 PM.....	52

Protective Clothing and Equipment

P0125 - PPE Related.....	Wednesday, June 3 10:00 AM – 12:20 PM.....	49
CR323 - The PPE Conundrum: When Both Chemical and Flash Fire Hazards Collide.....	Thursday, June 4 8:00 AM – 9:00 AM.....	61

Real-Time Detection Systems

RT201 - Novel Approaches in Industrial Hygiene Air Sampling.....	Monday, June 1 10:30 AM – 12:30 PM.....	20
P0123 - Real-Time Detection Systems.....	Wednesday, June 3 10:00 AM – Noon.....	48
RT231 - Notable Confined Space Events and Issues.....	Wednesday, June 3 1:00 PM – 4:00 PM.....	52

Respiratory Protection

P0101 - Respiratory Protection I.....	Monday, June 1 10:30 AM – 12:30 PM.....	18
P0116 - Respiratory Protection II.....	Tuesday, June 2 10:30 AM – 12:30 PM.....	35

Risk Assessment and Management

P0103 - Characterizing and Communicating Past, Present and Future Risk.....	Monday, June 1 10:30 AM – 12:30 PM.....	20
RT205 - The AIHA® Value Strategy and Return-on-Investment for Ergonomics Initiatives.....	Monday, June 1 2:00 PM – 4:30 PM.....	24
PS403 - Poster Session 403.....	Tuesday, June 2 10:00 AM - Noon.....	67
RT214 - Cancer and Non-Cancer Endpoints in Asbestos Risk Assessment.....	Tuesday, June 2 1:30 PM – 5:30 PM.....	38
RT220 - Vibration: the Forgotten Risk Factor.....	Tuesday, June 2 2:00 PM – 5:00 PM.....	40
RT224 - Industrial Hygiene and Occupational Health in Mining.....	Tuesday, June 2 2:00 PM – 5:30 PM.....	41
P0124 - Risk Modeling Tools in the Current and Future Toolkit.....	Wednesday, June 3 10:00 AM – Noon.....	48
RT236 - Toxicological Challenges to the Derivation and Application of Occupational Exposure Limits.....	Wednesday, June 3 1:00 PM – 4:30 PM.....	54
CR321 - Airplane Bird Strike Analysis Risk Assessment, Integrating Bow-Tie Analysis.....	Wednesday, June 3 2:30 PM – 3:30 PM.....	55
RT243 - Lead Poisoning Prevention: On the Threshold of New Initiatives and Discoveries.....	Thursday, June 4 9:00 AM – 11:30 AM.....	62
RT244 - Combustible Dust Risk Management: The WHY and the HOW.....	Thursday, June 4 9:00 AM – Noon.....	62

Safety

CR301 - EHS Leadership NOW.....	Monday, June 1 10:30 AM – 11:30 AM.....	18
CR302 - Workplace Safety: Young Employees and Summer Jobs.....	Monday, June 1 10:30 AM – 11:30 AM.....	18
CR303 - Preventing Ammonium Nitrate Explosions NFPA 400 Hazardous Materials Code.....	Monday, June 1 10:30 AM – 11:30 AM.....	18
CR305 - 10 Ways to Leverage Safety Collaboration with Occupational Health Professionals.....	Monday, June 1 2:00 PM – 3:00 PM.....	23
CR307 - Implementing the New NFPA 70E (2015 Edition) Electrical Safety Requirements.....	Monday, June 1 3:30 PM – 4:30 PM.....	27
CR308 - Food Manufacturing: Safer to Eat There than to Work There.....	Tuesday, June 2 10:30 AM-11:30 AM.....	32
CR310 - EHS Accountability and Responsibility: Maintaining Focus on Delivering Results Amidst Organizational Change.....	Tuesday, June 2 11:30 AM – 12:30 PM.....	36
CR311 - Frances Perkins: The Social Cost of Fire and the Current Need for Worker Fire Safety	Tuesday, June 2 11:30 AM – 12:30 PM.....	36
CR312 - A Practical Approach to World-Class EHS Leading Indicators: Cross-Industry Lessons from the Best of the Best.....	Tuesday, June 2 2:00 PM – 3:00 PM.....	39
CR313 - Safety Training Games: Let's Play!.....	Tuesday, June 2 2:00 PM – 3:00 PM.....	39

Techinal Sessions by Topic

Safety (continued)

CR314 - Ethics for the EHS Professional	Tuesday, June 2 3:30 PM – 4:30 PM	42
CR315 - Combustible Dust Hazard Identification and Control: NFPA Standards Overview	Tuesday, June 2 3:30 PM – 4:30 PM	42
CR316 - Taking Process Safety to the Next Level: Organizational Culture and Organizational Capability.....	Wednesday, June 3 10:00 AM – 11:00 AM	46
CR317 - The Hazards of Tower Safety: What an Industrial Hygienist Should Know About the Hazards and Controls Required to Ensure Safety for Workers on These Ubiquitous Systems of Complex Hazards	Wednesday, June 3 10:00 AM – 11:00 AM	46
RT226 - Managing Fall Protection Programs for Optimal Safety and Efficiency.....	Wednesday, June 3 10:00 AM – Noon.....	49
CR319 - What's New in Confined Space Entry: A Look at the NFPA 350 Guide for Safe Confined Space Entry and Work	Wednesday, June 3 11:00 AM – Noon.....	50
CR320 - Why Incident Management Matters.....	Wednesday, June 3 1:00 PM – 2:00 PM.....	51
CR321 - Airplane Bird Strike Analysis Risk Assessment, Integrating Bow-Tie Analysis.....	Wednesday, June 3 2:30 PM – 3:30 PM.....	55
CR322 - Safety Leadership and Engagement: Why It's Important and How to Do It	Wednesday, June 3 5:30 PM – 6:30 PM.....	55
CR323 - The PPE Conundrum: When Both Chemical and Flash Fire Hazards Collide.....	Thursday, June 4 8:00 AM – 9:00 AM	61
CR324 - Road Collision and Fatality Reduction through Driver Monitoring and Incentives	Thursday, June 4 9:30 AM – 10:30 AM.....	63
CR325 - Risky Business: Decision Theory and Implications for Health and Safety	Thursday, June 4 12:30 PM – 1:30 PM.....	64

Sampling and Laboratory Analysis

PS404 - Poster Session 404	Tuesday, June 2 1:00 PM – 3:00 PM	67
RT215 - Analytical Quality in Laboratories: The Triumvirate of Standard Methods, Proficiency Testing and Reference Materials and Their Roles in Assisting the Generation of High Quality Occupational Hygiene Data	Tuesday, June 2 1:30 PM – 5:30 PM	38
RT234 - New Developments in Sampling and Analysis of Workplace Chemical Exposures.....	Wednesday, June 3 1:00 PM – 4:30 PM	53
RT242 - Vivarium Risk Assessments in the Research Environment.....	Thursday, June 4 8:00 AM – Noon	61
P0128 - Advances in Laboratory Sampling and Analysis.....	Thursday, June 4 9:00 AM – 12:20 PM.....	38

Social Concerns

SP06 - 15th Annual Upton Sinclair Memorial Lecture for Outstanding EHS Investigative Reporting	Tuesday, June 2 10:30 AM – 11:30 AM	32
CR311 - Frances Perkins: The Social Cost of Fire and the Current Need for Worker Fire Safety	Tuesday, June 2 11:30 AM – 12:30 PM	36
SP11 - AIHce Movie Matinee	Wednesday, June 3 2:30 PM – 5:00 PM	55
RT243 - Lead Poisoning Prevention: On the Threshold of New Initiatives and Discoveries	Thursday, June 4 9:00 AM-11:30 AM	61

Special

Opening General Session - On the Edge: The Art of High-Impact Leadership	Monday, June 1 8:00 AM – 9:30 AM	18
SP02 - Jeffrey S. Lee Lecture – Two Decades Spent Helping Workers Protect Their Own Health and Safety in a Pitiless, Globalized Economy.....	Monday, June 1 12:30 PM – 1:30 PM.....	22
SP03 - ABIH Forum.....	Monday, June 1 2:00 PM – 3:30 PM	23
SP04 - Industrial Hygiene and Total Worker Health™.....	Monday, June 1 2:00 PM – 4:00 PM	23
General Session - Health and Safety Implications of the Fissured Workplace: A Conversation	Tuesday, June 2 8:00 AM – 9:00 AM	32
SP06 - 15th Annual Upton Sinclair Memorial Lecture for Outstanding EHS Investigative Reporting	Tuesday, June 2 10:30 AM – 11:30 AM	32
SP07 - NIOSH Response to Climate Change Challenge	Tuesday, June 2 11:00 AM – 12:00 PM	36
SP08 - William P. Yant Award Lecture: Advancing Industrial Hygiene Worldwide: Do We Have Enough People With IH Technical Skills? IH Certification Programs Around the World.	Tuesday, June 2 12:30 PM – 1:30 PM	37

Techinal Sessions by Topic

SP15 - AIHA Laboratory Assurance Programs: Quality Programs Value Proposition for Both Participants and Customers.....	Tuesday, June 2 1:30PM – 5:00PM.....	37
NEW! - Mark of Excellence Breakfast.....	Wednesday, June 3 7:00 AM – 9:00 AM.....	46
SP09 - Bayesian and Professional Judgment Users Group.....	Wednesday, June 3 10:00 AM – Noon.....	49
SP10 - Donald E. Cummings Award Lecture: Using Isometric Particles and Fibers in Lung Tissue of Workers as Complementary Analysis to Improve Knowledge and Understand Workers' Exposure.....	Wednesday, June 3 12:30 PM – 1:30 PM.....	51
SP11 - AIHce Movie Matinee.....	Wednesday, June 3 2:30 PM – 5:00 PM.....	55
SP12 - Train the Trainer: Improving IH Exposure Judgments.....	Thursday, June 4 8:00 AM – 5:00 PM.....	62
SP13 - SDS Authoring and Reviewing, and IH Insomnia: What's Keeping You up at Night? – SOLD OUT	Thursday, June 4 9:00 AM – 11:00 AM.....	62
SP14 - Herbert E. Stokinger Award Lecture – A 21st Century Paradigm for Evaluating the Health Hazards of Agents in the Workplace: The Challenge of Nanoscale Materials.....	Thursday, June 4 11:30 AM – 12:30 PM.....	63

Stewardship and Sustainability

SP13 - SDS Authoring and Reviewing, and IH Insomnia: What's Keeping You up at Night? – SOLD OUT	Thursday, June 4 9:00 AM – 11:00 AM.....	62
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Students and Early Career Professionals

CR302 - Workplace Safety: Young Employees and Summer Jobs.....	Monday, June 1 10:30 AM – 11:30 AM.....	18
IL02 - Student and Early Career Professionals Table Topics.....	Monday, June 1 Noon – 1:00 PM.....	22
RT209 - The Mentoring Circle: A 360 Degree View of Mentoring Programs and Relationships.....	Monday, June 1 2:00 PM – 5:00 PM.....	26
RT219 - Industrial Hygiene and Safety in Non-traditional Industries.....	Tuesday, June 2 2:00 PM – 5:00 PM.....	40
PS405 - Poster Session 405.....	Wednesday, June 3 10:00 AM – Noon.....	68
RT238 - Perspectives on Preparation for the CIH Exam v10.0.....	Wednesday, June 3 1:00 PM – 5:00 PM.....	55
RT245 - Oh! The Places You'll Go!.....	Thursday, June 4 12:30 PM – 3:00 PM.....	64

Toxicology

RT212 - Beryllium: Biological Monitoring.....	Tuesday, June 2 10:30 AM – 12:30 PM.....	35
RT236 - Toxicological Challenges to the Derivation and Application of Occupational Exposure Limits.....	Wednesday, June 3 1:00 PM – 4:30 PM.....	54



Meetings and Networking Events

AIHA

A

ACADEMIC ACCREDITATION COMMITTEE MEETING

Sunday, May 31, 6:00 p.m.–8:00 p.m., Marriott (HQ), Solitude

ACADEMIC SIG MEETING

Wednesday, June 3, 2:00 p.m.–4:00 p.m., Marriott (HQ), Alta/Snowbird/Brighton

AEROSOL TECHNOLOGY COMMITTEE MEETING

Tuesday, June 2, 5:00 p.m.–7:00 p.m., Hilton, Salon 2

AIHA ANNUAL BUSINESS MEETING

Thursday, June 4, 8:30 a.m.–10:30 a.m., Hilton, Canyon B

AIHA BOARD OF DIRECTORS MEETING (BY INVITATION)

Sunday, May 31, 8:00 a.m.–4:30 p.m., Marriott (CC), Olympus

AIHA BOARD OF DIRECTORS MEETING (BY INVITATION)

Thursday, June 4, 11:30 a.m.–12:30 p.m., Marriott (CC), Olympus

AIHCE 2015 WELCOME PARTY

Sunday, May 31, 7:00 p.m.–10:00 p.m., Gallivan Plaza, 239 S. Main St.

AIHCE FIRST TIMER'S ORIENTATION

Monday, June 1, 6:45 a.m.–7:45 a.m., SPCC, 255 A/B/C

ANALYTICAL ACCREDITATION BOARD (AAB) MEETING (BY INVITATION)

Saturday, May 30, 8:00 a.m.–5:00 p.m., Marriott (HQ), Deer Valley II/III

ANALYTICAL ACCREDITATION BOARD (AAB) STRATEGIC ADVISORY GROUP MEETING (BY INVITATION)

Sunday, May 31, 1:00 p.m.–4:00 p.m., Marriott (HQ), Grand Ballroom C

B

BIOLOGICAL MONITORING COMMITTEE MEETING

Sunday, May 31, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom J

BIOSAFETY & ENVIRONMENTAL MICROBIOLOGY COMMITTEE MEETING

Sunday, May 31, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom I

BLUE COUNCIL MEETING

Monday, June 1, 1:00 p.m.–2:00 p.m., Hilton, Salon 1

C

CAREER & EMPLOYMENT SERVICES COMMITTEE MEETING

Wednesday, June 3, 5:00 p.m.–7:00 p.m., Marriott (HQ), Park City

CENTER FOR SAFETY AND HEALTH SUSTAINABILITY BOARD MEETING (BY INVITATION)

Saturday, May 30, 8:00 a.m.–5:00 p.m., Marriott (HQ), Deer Valley I

CLANDESTINE LAB WORKING GROUP MEETING

Tuesday, June 2, 2:00 p.m.–4:00 p.m., Hilton, Canyon B

COMMUNICATION & TRAINING METHODS COMMITTEE MEETING

Wednesday, June 3, 2:00 p.m.–4:00 p.m., Marriott (HQ), Park City

COMPUTER APPLICATIONS COMMITTEE MEETING

Wednesday, June 3, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom B/C

CONFINED SPACES COMMITTEE MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom B/C

CONSTRUCTION COMMITTEE MEETING

Tuesday, June 2, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom G/H

CONSULTANTS SIG MEETING

Wednesday, June 3, 2:00 p.m.–4:00 p.m., Marriott (HQ), Cottonwood

CONTINUING EDUCATION COMMITTEE MEETING

Monday, June 1, 2:00 p.m.–4:00 p.m., SPCC, 258

CONTROL BANDING WORKING GROUP MEETING

Monday, June 1, 4:30 p.m.–6:30 p.m., Marriott (HQ), Park City

E

ENGINEERING INDUSTRY SIG MEETING

Tuesday, June 2, 4:30 p.m.–6:30 p.m., Hilton, Salon 3

ENVIRONMENTAL ISSUES COMMITTEE MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Solitude

ENVIRONMENTAL SIG MEETING

Wednesday, June 3, 10:30 a.m.–12:30 p.m., Hilton, Canyon A

ERGONOMICS COMMITTEE MEETING

Tuesday, June 2, 5:30 p.m.–7:30 p.m., Hilton, Grand Ballroom A/B

EXPO HALL NETWORKING RECEPTION

Monday, June 1, 4:00 p.m.–5:30 p.m., SPCC, Exhibit Halls C/D/E

EXPOSURE ASSESSMENT & STRATEGIES COMMITTEE MEETING

Sunday, May 31, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom F

F

FALL CONFERENCE PLANNING COMMITTEE MEETING

Monday, June 1, 12:30 p.m.–1:30 p.m., Marriott (HQ), Solitude

FELLOWS SIG MEETING

Wednesday, June 3, 4:00 p.m.–6:00 p.m., Marriott (HQ), Grand Ballroom F

FINANCE COMMITTEE MEETING

Monday, June 1, 2:00 p.m.–4:00 p.m., Marriott (HQ), Snowbird/Brighton

G

GOVERNMENT AFFAIRS UPDATE

Monday, June 1, 2:00 p.m.–2:30 p.m., Marriott (HQ), Park City

GREEN BUILDING WORKING GROUP MEETING

Monday, June 1, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom J

GREEN COUNCIL MEETING

Tuesday, June 2, 10:45 a.m.–12:45 p.m., Hilton, Salon 1

GUIDELINE FOUNDATION BOARD MEETING (BY INVITATION)

Monday, June 1, 11:00 a.m.–1:00 p.m., Marriott (HQ), Alta

H

HAZARD PREVENTION & ENGINEERING CONTROLS COMMITTEE MEETING

Wednesday, June 3, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom E

HEALTHCARE WORKING GROUP MEETING

Sunday, May 31, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom G/H

I

INCIDENT PREPAREDNESS & RESPONSE WORKING GROUP MEETING

Monday, June 1, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom B/C

INDOOR ENVIRONMENTAL QUALITY COMMITTEE MEETING

Tuesday, June 2, 10:00 a.m.–Noon, Hilton, Alpine

INTERNATIONAL AFFAIRS COMMITTEE MEETING

Monday, June 1, 3:30 p.m.–6:30 p.m., Marriott (HQ), Grand Ballroom H

INTERNATIONAL RECEPTION (BY INVITATION)

Monday, June 1, 6:00 p.m.–8:00 p.m., Hilton, Grand Ballroom A/B/C

IONIZING RADIATION COMMITTEE MEETING

Wednesday, June 3, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom G

J

JOINT INDUSTRIAL HYGIENE ETHICS EDUCATION COMMITTEE MEETING

Wednesday, June 3, 7:00 p.m.–9:00 p.m., Marriott (HQ), Solitude

L

LABORATORY HEALTH & SAFETY COMMITTEE MEETING

Wednesday, June 3, 5:00 p.m.–7:00 p.m., Marriott (HQ), Deer Valley

LEGAL ISSUES COMMITTEE MEETING

Monday, June 1, 2:00 p.m.–4:00 p.m., Marriott (HQ), Cottonwood

LOCAL SECTIONS COUNCIL BUSINESS MEETING

Tuesday, June 2, 1:00 p.m.–3:00 p.m., Marriott (HQ), Grand Ballroom F

LOCAL SECTIONS OFFICER TRAINING (BY INVITATION)

Wednesday, June 3, 2:00 p.m.–3:00 p.m., Hilton, Canyon C

M

MANAGEMENT COMMITTEE MEETING

Wednesday, June 3, 2:30 p.m.–4:30 p.m., Marriott (HQ), Grand Ballroom G

MARK OF EXCELLENCE BREAKFAST

Wednesday, June 3, 7:00 a.m.–9:00 a.m., SPCC, Grand Ballroom C-J

MENTORING & PROFESSIONAL DEVELOPMENT COMMITTEE MEETING

Tuesday, June 2, 10:30 a.m.–12:30 p.m., Hilton, Grand Ballroom A/B

MINING WORKING GROUP MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom F

MINORITY SIG MEETING

Tuesday, June 2, 2:00 p.m.–4:00 p.m., Hilton, Salon 1

MSA/AIHA RECEPTION

Tuesday, June 2, 6:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom

N

NANOTECHNOLOGY WORKING GROUP MEETING

Tuesday, June 2, 2:00 p.m.–4:00 p.m., Hilton, Alpine

NOISE COMMITTEE MEETING

Tuesday, June 2, 5:00 p.m.–7:00 p.m., Hilton, Alpine

NON-IONIZING RADIATION COMMITTEE MEETING

Tuesday, June 2, 5:00 p.m.–6:30 p.m., Hilton, Salon 1

O

OCCUPATIONAL & ENVIRONMENTAL EPIDEMIOLOGY COMMITTEE MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom J

OCCUPATIONAL & ENVIRONMENTAL MEDICINE COMMITTEE MEETING

Tuesday, June 2, 10:30 a.m.–12:30 p.m., Marriott (HQ), Park City

OIL & GAS WORKING GROUP MEETING

Tuesday, June 2, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom E

ORANGE COUNCIL MEETING

Tuesday, June 2, 12:00 p.m.–1:00 p.m., Hilton, Salon 2

P

PAST PRESIDENT'S FORUM (BY INVITATION)

Wednesday, June 3, 9:30 a.m.–11:00 a.m., Marriott (HQ), Grand Ballroom A

PERMANENT CONFERENCE COMMITTEE MEETING

Wednesday, June 3, 4:00 p.m.–6:00 p.m., SPCC, 258

PHARMACEUTICAL ROUND ROBIN COMMITTEE MEETING

Wednesday, June 3, 8:00 a.m.–9:30 a.m., Marriott (HQ), Solitude

PRESIDENT'S RECEPTION (BY INVITATION)

Wednesday, June 3, 6:30 p.m.–8:00 p.m., Marriott (HQ), Grand Ballroom A-E

PRODUCT STEWARDSHIP SOCIETY BOARD MEETING (BY INVITATION)

Wednesday, June 3, 12:30 p.m.–4:00 p.m., Marriott (HQ), Solitude

PROTECTIVE CLOTHING & EQUIPMENT COMMITTEE MEETING

Monday, June 1, 2:00 p.m.–4:00 p.m., Marriott (HQ), Grand Ballroom A

PROTECTIVE CLOTHING & EQUIPMENT: TRAIN THE TRAINER MEETING

Tuesday, June 2, 4:00 p.m.–6:00 p.m., Marriott (HQ), Cottonwood

PUBLICATIONS COMMITTEE MEETING

Tuesday, June 2, 10:30 a.m.–11:30 a.m., SPCC, 252

R

REAL TIME DETECTION SYSTEMS COMMITTEE MEETING

Tuesday, June 2, 10:30 a.m.–12:30 p.m., Marriott (HQ), Deer Valley

RED COUNCIL MEETING

Monday, June 1, Noon – 1:00 p.m., Hilton, Salon 2

RESPIRATORY PROTECTION COMMITTEE MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom I

RISK ASSESSMENT COMMITTEE MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom D

S

SAFETY COMMITTEE MEETING

Monday, June 1, 5:30 p.m.–7:30 p.m., Marriott (HQ), Grand Ballroom H

SAMPLING & LABORATORY ANALYSIS COMMITTEE MEETING

Monday, June 1, 2:00 p.m.–4:00 p.m., Marriott (HQ), Grand Ballroom H

SDS & LABEL AUTHORIZING REGISTRY EXAM

Monday, June 1, 1:00 p.m.–6:00 p.m., Hilton, Salon 3

SOCIAL CONCERNS COMMITTEE MEETING

Monday, June 1, 4:30 p.m.–6:30 p.m., Marriott (HQ), Grand Ballroom, Salon E

STEWARDSHIP & SUSTAINABILITY COMMITTEE MEETING

Tuesday, June 2, 2:00 p.m.–4:00 p.m., Hilton, Grand Ballroom A/B

STUDENTS & EARLY CAREER PROFESSIONALS (SECP) COMMITTEE MEETING

Wednesday, June 3, 10:30 a.m.–12:30 p.m., Marriott (HQ), Grand Ballroom D

STUDENTS & EARLY CAREER PROFESSIONALS (SECP) MENTORING PROGRAM NETWORKING RECEPTION

Monday, June 1, 6:00 p.m.–8:00 p.m., Gracie's, 326 S. West Temple

Meetings and Networking Events

STUDENT LOCAL SECTIONS COUNCIL BUSINESS MEETING

Tuesday, June 2, 11:30 a.m.–1:00 p.m., Marriott (HQ), Grand Ballroom B/C

T

TOXICOLOGY COMMITTEE MEETING

Tuesday, June 2, 2:00 p.m.–4:00 p.m., Hilton, Salon 2

V

VIOLET COUNCIL MEETING

Wednesday, June 3, 11:00 a.m.–12:00 p.m., Hilton, Canyon B

VOLUNTEER OFFICER TRAINING (BY INVITATION)

Wednesday, June 3, 12:15 p.m.–1:30 p.m., Marriott (HQ), Grand Ballroom H/I

VOLUNTEER ORIENTATION

Wednesday, June 3, 11:00 a.m.–12:00 p.m., Hilton, Canyon C

Y

YELLOW COUNCIL MEETING

Tuesday, June 2, 1:00 p.m.–2:00 p.m., Hilton, Salon 3

ACGIH

ACGIH BOARD OF DIRECTORS MEETING (BY INVITATION)

Sunday, May 31, 8:00 a.m.–5:00 p.m., Marriott (HQ), Grand Ballroom A

ACGIH MEMBERSHIP RECEPTION & ANNUAL MEETING OF THE MEMBERSHIP

Sunday, May 31, 5:30 p.m.–7:00 p.m., Marriott (HQ), Grand Ballroom D

ABIH

ABIH BOARD OF DIRECTORS MEETING (BY INVITATION)

Saturday, May 30, 7:30 a.m.–5:00 p.m., Marriott (HQ), Grand Ballroom B

ABIH BOARD OF DIRECTORS MEETING (BY INVITATION)

Sunday, May 31, 7:30 a.m.–5:00 p.m., Marriott (HQ), Grand Ballroom B

ABIH PAST CHAIRS BREAKFAST (BY INVITATION)

Tuesday, June 2, 6:30 a.m.–8:00 a.m., Marriott (HQ), Grand Ballroom A

AIHF

AIHF BOARD OF TRUSTEES MEETING (BY INVITATION)

Tuesday, June 2, 4:15 p.m.–6:15 p.m., Marriott (HQ), Park City

AIHF DONOR RECEPTION (BY INVITATION)

Sunday, May 31, 5:30 p.m.–7:00 p.m., Marriott (CC), Olympus

AIHF FUNRUN/WALK

Tuesday, June 2, 6:30 a.m.–8:00 a.m., Memory Grove, 300 N. Canyon Rd.

JOEH

JOEH EDITORIAL REVIEW BOARD MEETING

Sunday, May 31, 7:00 p.m.–9:00 p.m., Marriott (HQ), Deer Valley

JOEH, LLC BOARD MEETING

Tuesday, June 2, 12:00 p.m.–2:00 p.m., Marriott (HQ), Alta

Ancillary

AMERICAN ASSOCIATION OF RAILROADS (AAR) INDUSTRIAL HYGIENE FORUM

Wednesday, June 3, 3:00 p.m.–6:00 p.m., Hilton, Canyon A/B

ANNUAL PHARMA FORUM (BY INVITATION)

Wednesday, June 3, 1:00 p.m.–5:00 p.m., Marriott (CC), Capitol Ballroom A

ANNUAL PHARMA FORUM RECEPTION (BY INVITATION)

Wednesday, June 3, 5:00 p.m.–7:00 p.m., Marriott (CC), Capitol Ballroom B

CANADIAN REGISTRATION BOARD OF OCCUPATIONAL HYGIENISTS (CRBOH)

ANNUAL GENERAL MEETING

Tuesday, June 2, 3:00 p.m.–5:00 p.m., Hilton, Grand Ballroom C

FOCUS ON ACCREDITATION

Tuesday, June 2, 9:00 a.m.–11:00 a.m., Hilton, Canyon B

FOREST PRODUCTS INDUSTRY IH FORUM

Wednesday, June 3, 1:30 p.m.–5:00 p.m., Marriott (HQ), Grand Ballroom J

GASMET MARKETING MEETING (BY INVITATION)

Tuesday, June 2, 5:00 p.m.–7:00 p.m., Hilton, Canyon A

HARVARD ALUMNI RECEPTION

Monday, June 1, 6:00 p.m.–8:00 p.m., Hilton, Canyon A

INTERNATIONAL TRAINING/QUALIFICATIONS IN OH MEETING

Monday, June 1, 10:30 a.m.–12:30 p.m., SPCC, 355A

ISS FORUM (BY INVITATION)

Sunday, May 31, 5:30 p.m.–7:30 p.m., Marriott (HQ), Alta/Snowbird

JOHN'S HOPKINS RECEPTION

Monday, June 1, 6:30 p.m.–8:00 p.m., Hilton, Salon 2

MEDGATE AIHCE RECEPTION

Monday, June 1, 5:30 p.m.–7:00 p.m., Marriott (HQ), Alta

PURDUE UNIVERSITY – SCHOOL OF HEALTH SCIENCES RECEPTION

Tuesday, June 2, 7:30 p.m.–8:30 p.m., Hilton, Grand Ballroom C

UC BERKELEY SCHOOL OF PUBLIC HEALTH RECEPTION (BY INVITATION)

Tuesday, June 2, 4:00 p.m.–6:00 p.m., Marriott (CC), Sundance

UNIVERSITY OF CENTRAL MISSOURI ALUMNI & FRIENDS (BY INVITATION)

Tuesday, June 2, 4:30 p.m.–6:00 p.m., Marriott (CC), Amethyst

UNIVERSITY OF MICHIGAN ALUMNI RECEPTION (BY INVITATION)

Tuesday, June 2, 4:30 p.m.–6:00 p.m., Marriott (CC), Olympus

UNIVERSITY OF SOUTH FLORIDA RECEPTION

Wednesday, June 3, 6:00 p.m.–8:00 p.m., Martine Café, 22 East 100 South

UNIVERSITY OF TEXAS, UNIVERSITY OF HOUSTON CLEAR LAKE, & UNIVERSITY OF NORTH TEXAS HEALTH SCIENCE CENTER RECEPTION

Tuesday, June 2, 4:30 p.m.–6:00 p.m., Hilton, Canyon C

UW ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCE RECEPTION (BY INVITATION)

Tuesday, June 2, 5:00 p.m.–7:00 p.m., Marriott (HQ), Deer Valley

WORKPLACE HEALTH WITHOUT BORDERS MEETING

Wednesday, June 3, 1:00 p.m.–3:30 p.m., Marriott (HQ), Grand Ballroom D

Board and Conference Committees

Thank You...

*to the following volunteers for their time and expertise
in assembling the AIHce 2015 program.*

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A photograph of a Baltimore harbor scene. In the background is a large, historic red brick building with a prominent green dome and arched windows. In the foreground, there is a wooden pier and a red building with a white awning. The water is calm, reflecting the buildings and sky.

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