SPEAKER BIO AND DESCRIPTION OF TOPICS

AIHA ALBERTA SPRING PDC & SYMPOSIUM 2022

MARCH 10, 2022

AIHA ALBERTA LOCAL SECTION

WEDNESDAY, MARCH 9, 2022

SPEAKER ALL DAY

DAVE KEENAN, *CIH, ROH*

DOW CANADA

About: Dave Keenan worked at *Dow Canada in Fort Saskatchewan* from 1979 as an Occupational Hygienist until his retirement in 2015. Since then, he has been back at Dow twice as a contractor supporting the IH department through personnel changes. He also provides contract IH support to MEGlobal in Fort Saskatchewan.

He was designated a Certified Industrial Hygienist (CIH) by the ABIH in 1991 and a Registered Occupational Hygienist (ROH) by the CRBOH in 1992. He was a Sr. Industrial Hygiene Specialist in the Dow Global Industrial Hygiene Expertise Centre. He was the Global IH Business Focal Point for Hydrocarbons, Energy, Polyolefins and Ethylene Oxide/Ethylene Glycol businesses. He was the Global IH Technical Focal Point for Hearing Conservation.

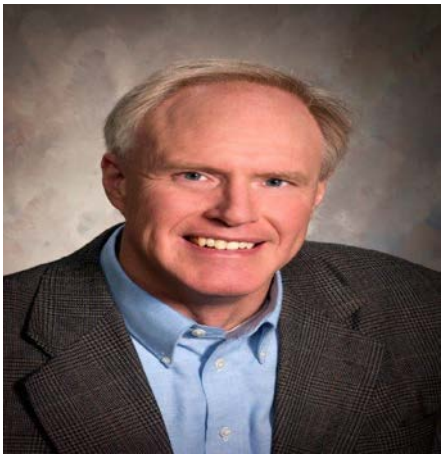
While supporting the multiple locations and businesses, he traveled extensively to audit and set up OH programs throughout the world. Dave was been associated with the University of Alberta- Faculty of Extension's Occupational Hygiene program as an instructor from 1992 to 2017. Dave was a former AIHA-Alberta Membership Director. In his "retirement", Dave continues to support Occupational Hygiene in Alberta via ASHSP and other endeavors. He is a coach in Athletics, including race-walking, an Athletics Alberta official and a World Athletics Course Measurer. Playing guitar in a church band is another passion.

Presentation Title: 2022 ACGIH TLV and Companion Calculations Workbook

This course will review the calculations found in the 2022 ACGIH® TLV® booklet. A copy of the booklet will be provided (by AIHA Alberta section) and a corresponding copy of the 2022 TLV® Companion Calculations Workbook. The genesis of the book was from students who struggled with mathematics. The workbook lays out a methodical way to calculate exposures to chemical, physical and ergonomic agents, without needing any knowledge of manipulating complex mathematical equations. The workbook saves the user time in writing out and checking formula accuracy. It allows users to test various scenarios/hypotheses through the calculations and graphs.

THURSDAY, MARCH 10, 2022

SPEAKER 1



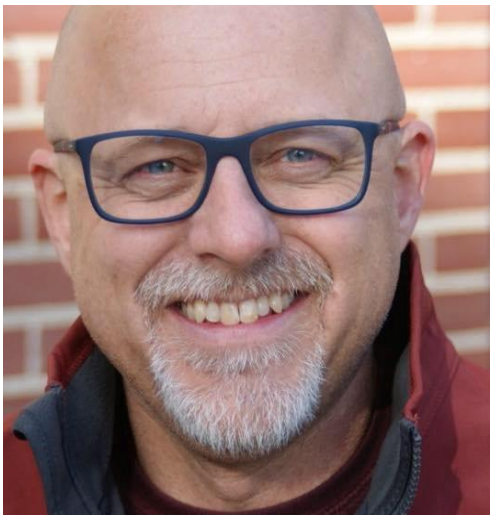
JOHN MULHAUSEN, *PHD, CIH, CSP*

PRESIDENT- AIHA NATIONAL

About: John Mulhausen Ph.D., CIH, CSP, is currently President of AIHA. He retired in 2018 from 3M where he worked for 31 years in a variety of global health and safety risk management roles, most recently as Director of Corporate Safety and Industrial Hygiene. He has authored / co-authored over 100 presentations, publications or professional development courses in forums throughout the world and contributed advice and expertise on various working committees sponsored by NIOSH, AIHA, ACGIH, and the National Academy of Sciences' Institute of Medicine. John is an adjunct assistant professor at the University of Minnesota, a Fellow of the AIHA, recipient of ABIH's Lifetime Achievement Award and AIHA's Edward J. Baier Technical Achievement Award and Henry F. Smyth Award.

Presentation Title: "Accelerating Advancements in Our Science and Practice to Better Protect Workers"

SPEAKER 2



KEN PAGE, *CRSP, CHSC*

ALBERTA HEALTH SERVICES

About: Ken Page is a CRSP and CHSC who has a BA in Economics and a Diploma in Occupational Science, with a specialization in Human Factors/Ergonomics. He has been part of the Alberta Health Services Workplace Health and Safety leadership team for 12 years primarily as the Manager for the Calgary Zone WHS Safety Team. Currently he is the Lead for the Business Planning and Data Management team. Additionally, he has over 25 years of experience in Occupational Health and Safety in several industries and focused on ergonomics, management systems, systems auditing, facility design and OHS/business integration. He was the WHS subject matter expert for the University of Calgary/AHS aspect of this research.

CO- SPEAKER: DR. SARAH SIMMONS

About: Dr. Sarah Simmons is a human factors psychologist. She received her PhD in psychology from the University of Calgary in 2020, where she researched transportation human factors and healthcare human factors topics under the supervision of Dr. Jeff Caird in the Cognitive Ergonomics Research Laboratory. She completed the work presented today while working at the W21C Research and Innovation Centre as a Human Factors Research Associate. She currently works at the Traffic Injury Research Foundation.

Presentation Title: DeMaND Study summary – Innovations to support RPE supplies in times of global communicable disease crisis

The global pandemic created by the SARS-CoV-2 virus in 2019 quickly stressed the inventory levels, and supply chains for N95 disposable respirators and disposable medical masks worldwide. Specifically stressed were supplies required by healthcare workers. Many groups started looking at ways to preserve access to safe and reliable respiratory protection including decontaminating previously used but physically functional N95 respirators. This presentation will review the outcome of the *Addressing personal protective equipment (PPE) decontamination: Methylene blue and light inactivates severe acute respiratory coronavirus virus 2 (SARS-CoV-2) on N95 respirators and medical masks with maintenance of integrity and fit* (aka DeMaND study) study conducted between May to September 2020, and the associate study *Decontamination and Reuse of Personal Protective Masks and Respirators in Healthcare: Human-Centered Investigation and Implementation Considerations.*

These studies have particular significance to the AIHA as they address novel and validated approaches to preserving or extending the life of disposable N95 respirators and medical masks while also seeking input by frontline healthcare workers on their impressions of potentially using decontaminated, previously used disposable respirators and masks.

References

Simmons, S.M., Page, K.N, Davies, J.M., Mallot, R.J., Conly, J.M. Decontamination and Reuse of Personal Protective Masks and Respirators in Healthcare: Human-Centered Investigation and Implementation Considerations. *Human Factors in Healthcare*, Volume 1, 2021, https://doi.org/10.1016/j.hfh.2021.100003 .

Lendvay, T., Chen, J., Harcourt, B., Scholte, F., Lin, Y., Kilinc-Balci, F., . . . Chu, M. (2021). Addressing personal protective equipment (PPE) decontamination: Methylene blue and light inactivates severe acute respiratory coronavirus virus 2 (SARS-CoV-2) on N95 respirators and medical masks with maintenance of integrity and fit. *Infection Control & Hospital Epidemiology,* 1-10. https://doi.org/10.1017/ice.2021.230

Yen, Christina F. et al.**Assessing changes to N95 respirator filtration efficiency, qualitative and quantitative fit, and seal check with repeated vaporized hydrogen peroxide (VHP) decontamination**. American Journal of Infection Control, Article in Press. https://doi.org/10.1016/j.ajic.2021.11.005

Lin, Yi-Chan, et al. **Detection and Quantification of Infectious Severe Acute Respiratory Coronavirus-2 in Diverse Clinical and Environmental Samples**. Preprint 2022. With permission from Dr. John M Conly, January 9, 2022.

SPEAKER 3

SIMON SMITH

Retired Senior Specialist in respiratory protection with 3M Canada, Committee roles with Canadian Standards Association (CSA) and International Organization for Standardization (ISO)

About: Simon has recently retired after a career in respiratory protection research for over thirty-eight years. This started with doctoral work on sorbent media, followed by employment with respirator manufacturers: first Racal Health and Safety as research manager, and after its takeover by 3M, continuation as a research scientist in Brockville, Ontario. He worked in filter development and evaluation methods for new products for military, industrial, healthcare and emergency responder applications. Simon has been contributing to standards development for over fifteen years and currently chairs the ISO working group creating standards for respirators for emergency responders and contributes to several Canadian Standard Association committees addressing respiratory protection, and to the US National Academies of Sciences, Engineering and Medicine PPE committee. Simon has formerly served as President of the International Society for Respiratory Protection and as Chair of the American Industrial Hygiene Association Respiratory Protection Committee.

Presentation Title: "New developments in Canadian Standards – respirator selection for biological aerosols, and a new respirator certification system".

Standards for equipment performance and selection. The speaker will provide the background that lead to the development of this standard and explain the differences between this new Canadian standard and the NIOSH standard. Then I can cover the selection guidance standard component of the other standard as well, which probably not many people have heard about.

SPEAKER 4

DR. BERNADETTE QUEMERAIS, *PHD*

UNIVERSITY OF ALBERTA

About: I am an environmental chemist who began my career by studying the mass balance of contaminants, specifically mercury, in the St. Lawrence River basin. I then worked for the Canadian Forces as an occupational hygienist, where I did some work on noise in Sea King helicopters, but mainly on soldiers' exposure to atmospheric emissions produced during live gun firing. Since arriving at the University of Alberta, I have been developing a program on nanoparticles and ultrafine particles. Specifically, I am interested in developing techniques for sampling and analysing nanoparticles and ultrafine particles and assessing the health effects of these particles. I have presently projects on the health effects of welding fumes and I am looking at sampling and analytical methods for crystalline silica and nanomaterials. I am also in the process of developing a full program in Occupational Hygiene at University of Alberta.

Presentation Title: Risk of receiving non-reliable data from laboratories and how to prevent it.

Occupational hygienists rely on laboratory results to assess compliance. Unfortunately, not all laboratories provide high quality and reliable data. So what can we do to verify that the data we received from laboratories are accurate