

## OCCUPATIONAL HYGIENE MATTERS

Welcome to the January 2020 edition of Occupational Hygiene Matters.

A quarterly newsletter from

The Australian Institute of Occupational Hygienists, Inc. (AIOH)

Australia's premier professional association representing the interests of occupational hygienists and allied professionals.

Our mission is to promote and preserve the health and wellbeing of Australian workers through application of the knowledge, practice and standing of occupational health and occupational hygiene.

### FROM YOUR PRESIDENT



Andrew Orfanos - AIOH President 2020

First and foremost, I would like to wish you all a Happy New Year. I hope you were all able to take some time away from work and spend some quality time with family and loved ones over the festive season.

The Institute, the AIOH Executive and the External Affairs Committee have hit the ground running with plenty of activity going on in January.

Following on from the success of the 2019 Perth Conference theme, the 2020 AIOH Council has adopted a theme of Setting up for Success.

As you read this report, the 2020 AIOH Planning Day will have been completed. The 2020 Council and chairs / representatives of all committees will have identified a range of issues, challenges and projects that need to be considered and prioritized.

Key topics of focus at the planning day included;

- Communication between Council, Committees and Members (particularly younger members),
- Member Service Charter and AIOH Code of Conduct, and
- Council/ committee project review process.

I will discuss these items in more detail in future issues of OH Matters.

The information generated at the Planning Day will be used to draft a detailed two-year strategy/plan that continues the great work undertaken by the 2019 Council and that is consistent with our current 5-year strategic plan.

This draft will be provided to Council to finalise and ratify. The 2020/2021 final Strategic Plan will then be communicated to all stakeholders, and in collaboration with our committee chairs develop a 2020 plan that includes timelines for all committees and internal staff members to deliver on the 2020/2021 Strategic Plan.

The Chair of the External Affairs Committee, Martin Jennings and his team of Sharann Johnson, Barry Chesson and Julia Norris have been in overdrive delivering on our Institute's key objective of influencing government and industry to create healthier workplaces.

We have released a media statement (/static/uploads/files/9-january-2020-media-release-wfeantdxrygc.pdf) around the institute's concerns around the long-term health of the thousands of first responders dealing with the horrific bushfires that have ravaged much of our country. In our media statement we raised comparisons to the 9/11 tragedy, not to be alarmist, but to raise awareness of what has happened in the past, and to take these learnings and ensure that comprehensive health surveillance systems are effectively implemented to monitor the ongoing health of our first responders. Although we can't foresee what the long-term impact will be or the numbers that will be affected, as health professionals we are aware of the potential long term health consequences from significant exposure to bushfire smoke over a period of weeks/months. It is our role to raise this awareness within our leaders and the general public. As such, our letter (/static/uploads/files/aioh-ltr-bushfires-health-issues-in-fire-fighters-and-first-responders-wfwbgauhcaww.pdf)that was sent to the Hon Greg Hunt, Commonwealth Minister for Health, and all State and Territory Ministers requested that they give serious consideration to raising the health of fire fighters and first responders and the issue of a National Institute for Occupational Health at the next COAG Health Council.

Our media release and letter to the Commonwealth, State and Territory Ministers for Health had the desired effect with the ABC picking up on our media release and raising our concerns on the ABC News Channel. (https://www.youtube.com/watch?v=P9A2TIY5upo&t=1s)

Using all of the positive feedback that the Institute received regarding this media release, Martin and the EA committee will be working on developing a program that identifies the strategies and platforms that the Institute can utilise to provide professional support, advice and guidance relating to the short and long-term health effects associated with exposure to bushfire smoke.

To find out more about what the External Affairs committee is currently doing, including our recent submission to the ACCC please read Martin's External Affairs Committee Report.

The Breathe Freely Program continues to grow and build partnerships, thanks to the work by Sharann Johnson and our members to make it happen. As I write this report SafeWork SA has just come on board as a BFA Partner. To find out more about the great work Sharann has been doing with BFA and how you can become a BFA Partner please read her BFA update.

As you may be aware, following discussions in meetings during and subsequent to the Perth conference, the special general meeting (SGM) that was requested late last year will now not take place. The majority of members who requested the meeting were satisfied that sufficient progress was made towards resolving the issue and withdrew their request. Ongoing discussions and meetings are continuing to take place with the goal of achieving a suitable resolution. We will continue to keep members informed as we progress towards a satisfactory outcome.

Last but not least I would like to thank the outgoing President, Julia Norris and outgoing Council Member Gillian Felton for all of their hard work and contribution to the Institute. A big thank you to Julia for her efforts in getting both BFA to where it is today and initiating the momentum to make Resp-Fit a real work in progress. Her hard work, vision and enthusiasm in making these two key projects a reality allows the 2020 Council, the current custodians of the Institute, a solid platform to continue to deliver on our 5-year Strategy and these two important initiatives.

The AIOH would like to express our sincere gratitude to the American Industrial Hygiene Association for their concern regarding the Australian Bush Fire crisis, and their generous donation to the Australian Red Cross.

As we are committed to protecting worker health, the AIOH has donated \$1000 to each state & territories fire service, to provide much-needed safety equipment, support & training to protect those workers who protect us.

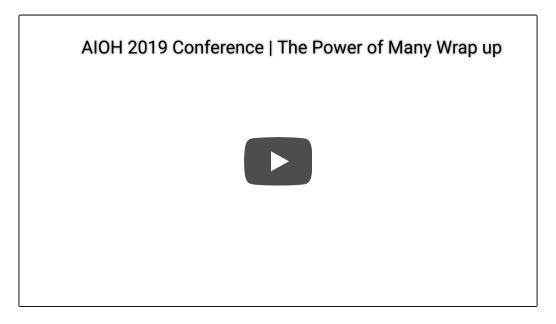
NATIONAL UPDATE

AIOH 2019 CONFERENCE |

THE POWER OF MANY: THANKS FOR THE MEMORIES!



The 37th Annual Conference and Trade Exhibition of the Australian Institute of Occupational Hygienists was held in Crown Perth from 30 Nov to 4 Dec 2019. With 600+ attendees, 70+ sessions, 16 continuing education sessions, 25+ sponsors, 60+ exhibition booths, this was one of the most successful conferences staged by the AIOH. Feedback from attendees has been extremely positive and they enjoyed the diversity of topics, technical presentations, networking opportunities, social program, excite sessions and Headshot café.



This year's conference theme, Recalibrate, Resynergise and Rebrand resonated loudly throughout our conference and it was amazing to see the Power of Many in action. The Power of Many recognises that united we can harness our collective power to achieve better worker health outcomes.

A special thanks to all our generous sponsors who have made this conference possible. In particular, to our major sponsors, who have been with us over the years, we say a huge thank you for supporting the AIOH conference again this year.

Thanks to all our exhibitors for an outstanding exhibition, showcasing world-class products and services. You ignite innovation and advancement within our profession.

Thanks so much to all our support groups, committees, service providers, volunteers who make this event possible.

Check out AIOH Website for presentations and photos (https://www.aioh.org.au/aioh2019/aioh-2019-conference)

Save the date for the 2020 AIOH Conference taking place in 28 Nov to 2 Dec 2020!

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# RESP-FIT – RESPIRATORY PROTECTIVE EQUIPMENT FIT TESTING TRAINING AND ACCREDITATION SCHEME



Mark Reggers provided an update at the 2019 Perth conference on the Rep-Fit progress. This is summarized below.

Fit testing for all tight fitting respirators (negative & positive) is a mandatory requirement of AS/NZS 1715 Respiratory Protective Equipment – Selection use & Maintenance. This standard also details the different fit testing methods. A key aspect in achieving the required level of protection for close fitting respirators is the compatibility of the selected mask with the wearer, to achieve an adequate seal. A respiratory fit test is performed to confirm that the fit of the respirator to the wearer is adequate.

With the recent focus by regulators across the country, over the past 12 months enforcing the requirement for fit testing, there is increased awareness around the requirement for fit testing in the workplace. However, there is currently no clear guidance in Australia on what defines a "good" RPE fit test and unfortunately, there are plenty of examples of poor fit testing practice and mis-information in many industries.

Whether the person performing the respiratory fit testing is someone fit testing workers within their own organisation or they have been engaged through an external company, the competence of that person is a critical component in the reliability of the fit test.

The AIOH approved the creation of a working group to develop an RPE fit testing training and accreditation scheme, to fill this gap in guidance and best practice, to improve the quality of RPE fit testing in Australian workplaces.

An expression of interest went out in early 2019 for those interested in being part of the working group. The response was amazing with over 30 submissions received.

With such a large group, smaller technical focal groups were created to focus on different aspects of the proposed scheme being training, accreditation, and communications. There is also a lead steering group to ensure communication across the focal groups and lead the project overall.

The training technical working group has developed a draft training course syllabus and approval process of training providers. It is currently proposed that training providers would develop their own course against the developed syllabus and submit for review and approval. Training companies and trainers would need to meet minimum experience and training qualifications. The draft syllabus is going through a final review before it is to be submitted to the AIOH council.

The accreditation technical working group has developed the conceptual framework of the accreditation process. It is currently proposed to involve an online exam, followed by a video submission showing a fit test being performed for review against set criteria. This online approach will make it more accessible for all fit testers no matter where they are in Australia. The next stage is to develop the documentation and process for the proposed framework.

The communications group has been working hard. They have created a number of draft FAQ's/Fact Sheets that will be made available on a future RESP-FIT website to provide information and education. They also have been investigating other organizations and opportunities where we can present/educate workers on the importance of fit testing.

Significant achievements have been made in 2019 with work continuing in 2020. So watch this space as you will be hearing a lot more about RESP-FIT in 2020 as we work toward a target launch period of late 2020 or early 2021.

For further information you can email respfit@aioh.org.au (mailto:respfit@aioh.org.au) or contact the AIOH Office

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## BREATH FREELY AUSTRALIA UPDATE, JANUARY 2020



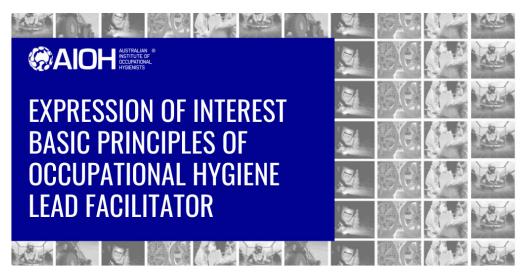
Breathe Freely Australia website was launched in June 2019 and since then the achievements of the program have been outstanding. Firstly, this has been a collaborative effort starting with BOHS and then the generosity of many members contributing to the seminar, roadshows on Silica & Silicosis, particularly the government hygienists for the Engineered Stone section.

BFA is an enabler and flag ship of the AIOH. BFA Partnerships have been developed with the following organisations: WA - Worksafe, Dept Mines, Industry Regulation and Safety, Master Builders & Commission for Occupational Safety & Health, QLD – Dept of Natural Resources, Mines and Energy, Workplace Health & Safety and CFMEU.

2019 highlights were roadshows with government departments, as well as participating in the HIA (Housing Industry Australia) seminars nationally in 2019. There were nine sponsors for our roadshows and we were able to reach out to over 1000 attendees, many who were trades people.

You can become a BFA Supporter. Early in 2020 we will launch the Supporters program so you can spread the word about Breathe Freely and help improve safe work practices to prevent dust-lung diseases. Watch this space. https://www.breathefreelyaustralia.org.au/partners-sponsors-supporters/. (https://www.breathefreelyaustralia.org.au/partners-sponsors-supporters/)

## EOI - Basic Principles of Occupational Hygiene Lead Facilitator



#### **EXPRESSION OF INTEREST**

The AIOH is calling for Expressions of Interest from members interested in assuming the role of Lead Facilitator for AIOH's Basic Principles in Occupational Hygiene Course (BPC) in 2021.

The BPC is our signature entry level course in occupational hygiene and with internationally recognised material to work with, the lead presenter of BPC 2021 will have a unique opportunity to entice the next generation of members to the art and science that is occupational hygiene. The BPC is run over 5 consecutive days and is usually held 6 to 7 times per year. The Course consists of theory supported by practical sessions. All Course logistics are managed by the AIOH Conference and Events Manager. The Lead Facilitator is responsible for the overall delivery of each course assisted by one Presenter.

There will be a transition period for the Lead Facilitator during 2020 with the successful person assisting with the presentation of 2 to 3 courses in 2020 and then taking over the full role facilitating all Courses run 2021.

#### **LEAD FACILITATOR - SPECIFIC RESPONSIBILITIES**

- The Lead Facilitator is expected to be present for the 5-day duration for most of the courses.
- The Lead Facilitator is responsible for the overall delivery of the 5-day course, assisted by one other presenter.

The Lead Facilitator should be competent to:

- present any of the components of the Course, including modules on recognition, evaluation and control of:
- 1. Chemical hazards;
- 2. Physical hazards (i.e. radiation, noise, vibration, thermal, and lighting);
- 3. Biological hazards;
- 4. Ergonomics; and
- 5. Psychosocial hazards.
- set-up and lead a variety of practical exercises including dust, fibre, gas and vapour sampling, noise monitoring and dosimetry, thermal and lighting assessments

#### **BENEFITS OF ROLE**

Benefits are many but include a lead facilitator fee, reasonable travel expenses and Certification Maintenance points.

#### **SUITABLE APPLICANTS WILL**

- Be a Certified Occupational Hygienist
- Have a passion for education and protection of worker health
- Be prepared to bring their knowledge of workplace hygiene practice to the classroom
- Have demonstrated and proven experience in delivering training packages in an engaging way
- A Certificate 4 in Workplace Training and Assessment is desirable.

#### **NEXT STEPS**

Interested members should be completing the EOI form by COB Friday 28th February 2020 by clicking here (/events-public/events-docs/basic-principles-of-occupational-hygiene-lead-facilitator). Any questions please contact AIOH Conference and Events Manager (conference@aioh.org.au)

#### **SELECTION PROCESS**

All EOIs submitted by the due date will be reviewed by the AIOH PD&E Committee members and current BPC Lead Facilitator. Applicants will be notified by mid-April 2020.

## YOUR WORK HEALTH AND SAFETY OBLIGATIONS REGARDING BUSHFIRE SMOKE.



Workers who are not directly involved in firefighting activities may be exposed to smoke while working indoors or outdoors during periods of significant bushfire activity. Find out about your WHS obligations here (https://www.safework.nsw.gov.au/safety-starts-here/physical-safety-at-work-the-basics/bushfire-smoke)

For more information on work health and safety, see www.safework.nsw.gov.au (http://www.safework.nsw.gov.au) or call 13 10 50.

## DGAG MEETING, PORT MELBOURNE, 5 FEB 2020, MELB

Dangerous Goods Advisory Group meeting, Wed 5th Feb 2020, 5.30pm for 6pm - 8.15pm meeting at Sandridge Trugo Community Centre (Port Melbourne). Corner Albert & Poolman Streets. \$3-\$5 cost to attendees (depending on numbers). There will be tea/coffee & biscuits, and those interested, go for a meal after.

Info:http://www.haztech.com.au/meetings/dangerous-goods-advisory-group-meeting/(http://www.haztech.com.au/meetings/dangerous-goods-advisory-group-meeting/)

For those who would like to be added to my Dangerous Advisory Group/Chemical Hazard Communication Network email meeting issues list, please email me at Jeff.Simpson@haztech.com.au (mailto:Jeff.Simpson@haztech.com.au)

You don't have to be in Melbourne, to be on this email meetings & issues alert list.

## CHCN MEETING, PORT MELBOURNE, 4 MAR 2020 MELB

CHCN Meeting, Port Melbourne, 4 Mar 2020 Melb

Chemical Hazard Communication Network meeting, Wed 4th March 2020, 5.30pm for 6pm - 8.15pm meeting at Sandridge Trugo Community Centre (Port Melbourne). \$3-\$5 cost to attend (depending on

numbers). Corner Albert & Poolman Sts.

There will be tea / coffee / biscuits & those interested, go for a meal after. www.haztech.com.au/meetings/chem-haz-comm-network (http://www.haztech.com.au/meetings/chem-haz-comm-network)

IF you would like to be added to my Dangerous Advisory Group / Chemical Hazard Communication Network meeting email issues list, please email Jeff.Simpson@haztech.com.au (mailto:Jeff.Simpson@haztech.com.au). You don't have to be in Melbourne, to be on this email list.

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### ICOH 2021



find out more (/static/uploads/files/icoh-2021-1st-announcement-wfuhualgwnqa.pdf)

## YOUNG HYGIENIST BLOG

find out more (https://younghygienist.wordpress.com/2020/01/07/welcome-back-young-hygienist-snapshots-a

## ANZSOM ANNUAL ACIENTIFIC MEETING



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## AIOH BASIC PRINCIPLES 2020 - REGISTRATIONS NOW OPEN!



The Basic Principles of Occupational Hygiene course provides an introduction to occupational hygiene and is an ideal first step for professionals looking to further their knowledge in this area. The course is designed to be delivered as a 5-day taught programme including student assessment. The AIOH course includes practical activities each day to reinforce the learnings and demonstrate occupational hygiene monitoring practices.

#### **WHY CHOOSE AIOH**

- Course conducted for over 15 years and successfully trained over 1000 students from across Australasia.
- Course is based on the internationally approved OHTA W201 Foundation Level Basic Principles in Occupational Hygiene course outlining the broad principles of Occupational Hygiene as the basis for anticipation, recognition, evaluation and control of hazards that can be encountered in the workplace.
- Course is taught using multimedia by professional, trained, practicing occupational hygienists, who are Members of AIOH, which is the pinnacle of the profession in Australia.

#### **COURSE AIMS**

- To provide a practical understanding of occupational hygiene for people who need to manage or advise on workplace health issues.
- To provide a foundation from which to undertake more in-depth study in individual occupational hygiene subjects.
- To inform and enthuse students about the contribution of occupational hygiene to worker health.

#### **TOPICS COVERED**

Introduction to Occupational Hygiene, Human physiology, Fundamentals of Toxicology, Examples of Hazardous Substances/Processes, Assessment of Health Risks, Measurement of airborne contaminants, Hygiene Standards and Occupational Exposure Limits, Biological monitoring and Health Surveillance, General Approaches to the Control of Risk to health, Ventilation, Asbestos, Biological Hazards, Noise, Vibration, Thermal Environment, Lighting and Non Ionizing Radiation, Ionizing Radiation, Introduction to Ergonomics, Display Screen Equipment, Human Factors, Stress Management, Careers in Occupational Hygiene.

At the completion of the course the attendees will be provided with a certificate of attendance issued by the AIOH. The course examinations will be returned to the BOHS for marking and issue of the of the W201 award for successful completion.

#### **FEES**

Course Cost: \$2,750 ex GST

Payment must be made in full by credit card at the time of registration.

There is no refund available for this course. You can transfer your registration to another attendee.

Click here to register (https://www.aioh.org.au/events-public/basic-principles-of-occupational-hygiene-2020)

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### INTERNATIONAL UPDATE

## HOMEWARD BOUND PURSUES LEADERSHIP IN STEMM TO THE ENDS OF THE EARTH



Homeward Bound is a ground-breaking, global leadership initiative, set against the backdrop of Antarctica, which aims to heighten the influence and impact of women in making decisions that shape our planet. Its three strategic focal points are:

## I AM WILLING AND ABLE TO LEAD WE ARE STRONGER TOGETHER WE ARE TAKING ACTIONS WITH IMPACT

Homeward Bound is a global 12-month leadership initiative for women with a background in STEMM (Science, Technology, Engineering, Mathematics and Medicine). The program aims to equip a 100-strong collaboration of women with the skills to demonstrate a new model of leadership, to create better outcomes for the planet.

Research repeatedly shows that while women demonstrate great integrity and a legacy mindset when it comes to leadership, decision-making and the creation of collaborative and effective teams, they are overwhelmingly under-represented in the traditionally male dominated professions. This 12-month program includes online learning to increase leadership capacity, strategic capability, visibility and collaboration and culminates with the 100 participants embarking on a three-week life-changing expedition to Antarctica.

Dr Lisa Mills, an Environmental Engineer and Occupational Hygienist and AIOH member joined 99 other women in the fourth cohort of Homeward Bound to be part of the largest all-women expedition to Antarctica in history in December 2019. Lisa was attracted to apply for the program after having worked in male-dominated industries such as mining and power generation for almost 20 years. She has never had a female manager or mentor and is currently working on developing a tool-box of skills to allow her to become a mentor to the younger generation of women in STEMM and provide the support that she missed as a junior engineer.

Lisa said that the ship was filled with extraordinary women, all equipped with enough intellect, passion and vision to change the world. "The leadership training encouraged us all to step up and lead based upon our personal values with the purpose of making a positive change in the world. We learnt the power of visibility, practiced having difficult conversations, explored how to recover from failure and learnt how to build trust and safety in teams".

"All of this occurred against the backdrop of Antarctica, which provided the participants with a deep connection to nature and provided the isolation and quiet to reflect on the often-intense training in which we were participating", Lisa said.

Applications for the sixth Homeward Bound cohort open in Q1 2020 and more information on the program can be found at www.homewardboundprojects.com.au (http://www.homewardboundprojects.com.au).



Homeward bound 2019 - on deck of the Hebredian Sky



**AIOH member, Dr. Lisa Mills** 

## BOHS have just released their Good Practice Guide for Consultants

## Global exposure Manager - IOHA Newsletter & Technical Updates

Read more here (https://www.ioha.net/wp-content/uploads/2019/11/GEMSept0ct-2019.pdf)

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### NZOHS Conference 2020

It is with great pleasure that the NZOHS would like to invite you to submit a paper for the NZOHS Work-related Health Conference 2020.

The conference will be held at the Heritage Hotel, Queenstown, from 5 to 7 May 2020.

Please find attached the call for papers with further information and details. You have the option to submit a platform presentation, workshop, poster or even photos.

All presenters of posters/presentations/workshops can attend the conference days for free (T&Cs apply).

If you are not interested in presenting at the conference, please still join us for a remarkable conference.

#### Registrations open 06 January 2020.

Also find attached the call for exhibitors. Only 10 spaces available. So ensure to secure your spot soon.

For more information, visit our website at https://nzohs.org.nz/conference-2020/ (https://nzohs.org.nz/conference-2020/)



### Member Scientific Committee IOHA 2020

The Asian Network of Occupational Hygiene held their 4th Conference in Bangkok, Thailand 9-12 November 2019. A number of AIOH members attended the event where many high-quality presentations were given and a large poster section on display.



AIOH President-Elect 2019 Andrew Orfanos, AIOH Members (Brian Eva, Kerry McDougall, Phillip Hibbs), Wollongong University Student (Shane McDougall) and ANOH student volunteers.

## Call for participation in an IOHA 2020 Symposium (October 17-22, 2020)

## Occupational risks assessment- knowns, unknowns, or emerging

Hello there, our "Aussie Symposium Topic" at IOHA 2020 is Occupational risks assessment- knowns, unknowns, or emerging. If you have not already submitted an abstract for a presentation at IOHA 2020, consider participation in this symposium. Your presentation needs to be 10 -15 minutes. I have two confirmed presenters but I'm looking for 2 or 3 more to make the Aussie Session one not to miss! At the conclusion of the presentations there will be a short panel session to bring the theme together. Rest assured, there will be insufficient time for you to be "stressed out"!!

Please call me to discuss on 0412 465315 or send me an email with an outline of your topic to brian\_eva@evaandassociates.com.au (mailto:brian\_eva@evaandassociates.com.au)

I need to provide an outline of our symposium package to the Scientific Committee on 31 January 2020 so don't delay.

#### **Brian Eva**



### OHHR 2020 Speaker Invitation



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### RESEARCH BITES

## CQUniversity PhD Candidate Survey Request

Accidents are at epidemic proportions across Australia and the world. Sadly, the recurrence of similar accidents is a key feature of this epidemic. This makes the work of accident investigators essential, in analysing accident causation with the aim of recommending appropriate corrective actions that prevent recurrence of accidents. Many accident analysis tools claim to assist investigators to analyse and identify the causes of accidents.

When you are investigating, what accident analysis tools do you use? You can help to identify the most commonly used accident analysis tools in Australia by filling in this survey https://www.surveymonkey.com/r/2S7WHVB (https://www.surveymonkey.com/r/2S7WHVB)

Thank you for your help with this research.

#### **Allison Hutton**

CQUniversity PhD Candidate allison.hutton@cqumail.com (mailto:allison.hutton@cqumail.com)

## Implementation of new silica and coal dust exposure standards

Work Health and Safety (WHS) ministers have agreed to adopt new workplace exposure standards for respirable coal dust and respirable crystalline silica (including alpha quartz, cristobalite & tridymite).

#### Coal dust (containing < 5% quartz) (respirable dust)

The new standard of 1.5 mg/m3 (TWA) will apply from 1 October 2022 in all states and territories under the model WHS laws. This implementation date provides a three year transitional period.

States which have separate mining and quarrying WHS laws, such as Queensland and New South Wales, will need to carry out a regulatory change during the transitional period to set an implementation date.

#### Alpha quartz, cristobalite and tridymite (respirable crystalline silica dust)

While a majority agreement was reached by the states, each state jurisdiction will set an implementation date for the new respirable crystalline silica (and its polymorphs) standard of 0.05 mg/m3 (TWA). The following states have announced an implementation date:

Victoria: 17 December, 2019South Australia: 1 July, 2020

NSW: as soon as practicable, but not later than 30 September, 2022

The updated WES for respirable crystalline silica will have effect in a jurisdiction on the date set by that jurisdiction. You should contact your state's WHS regulator (https://www.safeworkaustralia.gov.au/whs-authorities-contact-information) to confirm whether the update to the WES applies in your jurisdiction, or if you need advice about how this change may affect your workplace.

A note about the role of workplace exposure standards under the model work health and safety laws - the workplace exposure standard is the legal maximum upper limit of exposure only. Duty holders are required to minimise the exposure of workers to all hazardous chemicals so far as is reasonably practicable. This precautionary principle has been acknowledged by the Victorian governmen (https://www.premier.vic.gov.au/silica-workplace-exposure-standard-halved/)t in the urging of workplaces

to reduce exposures below 0.02 mg/3.

#### **WorkSafe Victoria Implementation**

Victoria has adopted the reduced Safe Work Australia (SWA) workplace exposure standard for respirable crystalline silica (RCS) of 0.05 mg/m3 (8 hour TWA). SWA workplace exposure standards are incorporated into Part 4.1 (Hazardous substances) in the Occupational Health and Safety Regulations 2017. A media release (https://www.premier.vic.gov.au/silica-workplace-exposure-standard-halved/) from the Minister for Workplace Safety confirmed the adoption of the new standard on the 19th December 2019.

Control of risks from RCS exposure in workplaces remains a priority for WorkSafe Victoria (WSV) in 2020. During 2018 and 2019 WSV conducted an extensive program of workplace visits primarily focusing on RCS risks in kitchen/bathroom fabricators using engineered stone, but also expanding in to other industries.

During this period WSV has provided awareness and education sessions on the risks and control of RCS exposure in workplaces. A series of public seminars and TAFE college presentations have been conducted for employers, employees, apprentices and health professionals.

In 2020 WSV will continue its approach of conducting workplace visits and regulatory enforcement as well as promoting awareness of issues associated with crystalline silica issues. In particular the following education forum is highlighted:

On the 27th February a forum entitled *WorkSafe summit: 'Silicosis – A Preventative Approach'* is to be held at the Flemington Racecourse in Melbourne. The summit will target the stonemasonry (including engineered stone benchtop fabricators), construction, and earth resources industries (quarrying and mining). A trade show will also be held during the summit where a range of providers will have tools and equipment on display. The summit and trade show will provide attendees with the latest up to date information regarding the control of silica dust in the target industries.

Further information regarding the summit can be found by accessing the link below including an opportunity to pre-register for the summit.

https://comms.worksafe.vic.gov.au/pub/pubType/EO/pubID/zzzz5df2eec118893837/interface.html (https://comms.worksafe.vic.gov.au/pub/pubType/EO/pubID/zzzz5df2eec118893837/interface.html)

### NIOSH Seeks Feedback on Manual of Analytical Methods

The editors of the NIOSH Manual of Analytical Methods, or NMAM, are seeking feedback about the 5th edition of the resource. NMAM is a compilation of validated sampling and analytical methods that are used globally for occupational exposure assessment in industrial hygiene and related professions. The 5th edition of NMAM was released in April 2016 and has been continuously updated as new or revised methods are evaluated and their performance verified. The NMAM editors are conducting a customer

satisfaction survey to gather information about how customers use analytical methods in their work and their use of NMAM. According to NIOSH, the results of the survey will be used to help focus future method development activities, improve NMAM methods, and identify website content or features in need of improvement.

The NMAM survey is anonymous, and no individually identifiable data will be collected, published, or released. For more information about NMAM, visit NIOSH's website.

https://www.cdc.gov/niosh/nmam/default.html (https://www.cdc.gov/niosh/nmam/default.html)

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## Mesothelioma in Australia 2018: occupational asbestos exposure

This Infocus report presents information on occupational asbestos exposure in Australia, using data from the Australian Mesothelioma Registry (AMR). Mesothelioma patients recorded on the AMR can complete a voluntary asbestos exposure assessment to determine the circumstances of potential past exposure. This report presents results for the three most commonly assigned job-specific modules (or 'categories') – 'Trades', 'Land transport' and 'Water transport'.

## Australian Workers' Compensation Statistics 2017-18 now available



This report provides detailed statistics about workers' compensation claims in Australia, including data broken down by sex, age, occupation and industry.

Key findings in 2017-18 include:

The total number of serious workers' compensation claims was 107,335.

The three occupations with the highest rate of serious claims (per million hours worked) were:

- Labourers
- 2. Community and personal service workers
- Machinery operators and drivers

The three industries with the highest rate of serious claims (per million hours worked) were:

- 1. Agriculture, forestry and fishing
- 2. Manufacturing
- 3. Transport, postal and warehousing

To find out other interesting statistics, read the Australian Workers' Compensation Statistics 2017-18 report (https://safeworkaustralia.cmail20.com/t/j-l-cdkdtkd-ttvirutm-x/) on our website.

## UK regulation of welding

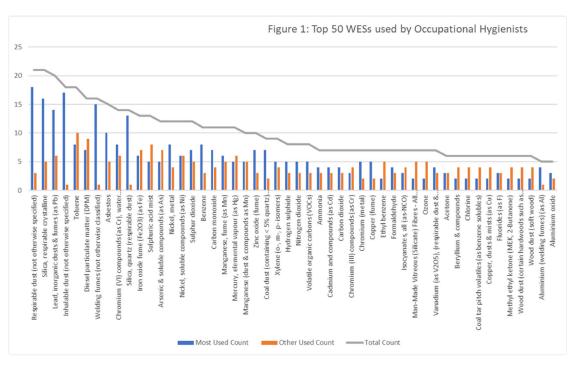
The UK Health and Safety Executive has acted to strengthen its enforcement expectations for fume control at welding activities based on the IARC declaration.

Read more here. (/static/uploads/files/uk-regulation-of-welding-oh-matters-jan-2020-wfueyxojormf.pdf)

## Safe Work Australia (SWA) Workplace exposure standards (WESs) review continues

SWA continues to evaluate the WESs for airborne contaminants "to ensure they are based on the highest quality, contemporary evidence and supported by a rigorous scientific approach". Their Engage website (https://engage.swa.gov.au/workplace-exposure-standards-review) contains the draft evaluation reports and recommendations for the WESs. Each report includes: a recommended WES value; information about the basis of the recommendation; and a summary of the data relied upon to make the recommendation. The Exposure Standards Committee is trying to respond to as many of the recommended changes as possible, but it is a big ask. We need your input also.

Back in 2017 we conducted a survey of members, where we asked a number of questions, importantly: what WESs do you use most; and what other WESs have you used. Although the response rate was disappointing, those that did respond identified some 227 WESs that they used. The top 50 WESs used by members is depicted in the following figure.



Please, can you take a look at the SWA draft evaluation reports for WESs that you are familiar with and provide some comment to the Exposure Standards Committee for our coordinated response. SWA are asking for feedback on their proposed health-based WES values, in particular, comments of a technical nature regarding:

- The toxicological information and data that the value is based upon, and
- The measurement and analysis information provided.

lan Firth (MSc, COH, FAIOH) MOBILE: 0467 711 027

EMAIL: ian.firth55@gmail.com (mailto:ian.firth55@gmail.com)

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### CAREX Canada DPM OEL Assessment

CAREX Canada (https://www.carexcanada.ca/) (CARcinogen EXposure) is a multi-institution team of researchers and specialists with expertise in epidemiology, risk assessment, toxicology, geographic information systems, and knowledge mobilization. They have recently (December 2019) published "Setting an Occupational Exposure Limit for Diesel Engine Exhaust in Canada: Challenges and Opportunities". This report, which highlights the variability in occupational exposure limits (OELs) that have been adopted in Canada for constituents of diesel engine exhaust (DEE), found that few jurisdictions in Canada outside of the mining industry have an OEL for DEE, and none have adopted an OEL that reflects the current state of knowledge. The purpose of the report was to: understand the regulatory landscape for occupational DEE

exposure; learn what experts thought are the key barriers and facilitators to setting and complying with OELs; and make a recommendation on a DEE OEL for Canada.

The report noted that elemental carbon (EC) is the best surrogate for measuring diesel exhaust particulate and that several international jurisdictions have proposed or adopted OELs based on measurement of EC. Legally enforceable OELs have been adopted by three countries in Europe (Switzerland, Germany, and Austria), three states in Australia (Queensland, Western Australia, and New South Wales), and New Zealand. The European Parliament adopted an OEL of  $50~\mu g/m^3$  of elemental carbon in December 2018, but has incorporated longer transitional periods before the OEL will apply in recognition that the OEL may be difficult to achieve in the short term. Four professional organizations have recommended OELs for DEE (California Department of Public Health, Finnish Institute of Occupational Health, the Health Council of the Netherlands, and the AIOH). They note that none of these are legally enforceable at present. The ACGIH® has placed DEE on its list of agents under study but does not currently recommend a TLV for DEE.

Key informants identified five key challenges and barriers to the development and implementation of a DEE OEL: uncertainty in the science, slow regulatory processes, economic impact, inconsistencies in the selected marker of exposure, and measurement and analytical issues. Other barriers identified were in relation to the OHS landscape in Canada and the fact that provincial reliance on the ACGIH® threshold limit values means that jurisdictions will wait until the ACGIH® issues a recommended limit for DEE.

While noting that other jurisdiction current DEE OELs vary between 50 to 100  $\mu g/m^3$ , based on evidence of increased lung cancer risk at very low levels, CAREX Canada recommended that Canadian jurisdictions move towards an OEL based on elemental carbon of 20  $\mu g/m^3$  for the mining industry and 5  $\mu g/m^3$  for other workplaces to protect worker health. The higher OEL recommended for the mining industry was said to take into account "the feasibility of implementation in this industry that will have particular challenges and is meant as an interim target in a staged approach to eventually have one harmonized OEL for all workers".

In coming to this conclusion, CAREX Canada placed emphasis on the health-based recommendations recently released by the Health Council of the Netherlands (https://www.healthcouncil.nl/documents/advisory-reports/2019/03/13/diesel-engine-exhaust), considered to be particularly noteworthy, "as they reflect the current state of the evidence and are two orders of magnitude lower than other existing OELs for DEE". This publication was reported on in the April 2019 OH Matters edition, which should be referred to for more detailed context.

The Dutch committee reviewed studies in workers who had been exposed to emissions from diesel engines with **no effective emission reduction systems** to arrive at a target risk level of  $0.011 \, \mu g/m^3$  and a prohibition risk level of  $1.03 \, \mu g/m^3$ . In fact, they used three large-scale cohort studies; one focused on miners, and the other two involving transport company workers, the same as those used by most reviewers, including the AIOH for their DPM Position Paper. They noted that three of four studies showed statistically significant positive associations and trends between cumulative respirable EC exposure and lung cancer mortality in the trucking and mining industry, in which workers were mainly exposed to DEE (Steenland et al. 1998, Garshick et al. 2012, Silverman et al. 2012). However, no association was found by Möhner et al. (2013), and this study was considered by the Dutch committee to be "less suitable for quantitative risk assessment". They do note the uncertainties associated with the epidemiology studies used that may have influenced the outcome, regarding actual historical exposure levels, smoking or co-exposure to known carcinogenic substances from other sources than diesel engines. They further point

out that as yet, there is insufficient scientific data to quantify the efficacy of the latest emission reduction systems, in terms of mitigating or eliminating the risk of cancer or of other adverse health effects incurred by long-term occupational exposure to DEE.

CAREX Canada interviewees identified the following six key facilitators that they perceive are necessary (or highly desirable) for the implementation of a DEE OEL in their jurisdiction: proof of achievability, strong scientific rationale, a national working group, availability of up-to-date measurement techniques and data, and a consensus recommendation.

A consensus recommendation will indeed need to be based on strong scientific rationale, be measurable and be achievable, and factor in the toxicity of DEE due to current emission reduction systems. The AIOH DPM Position Paper should be referred to for more context.

lan Firth (MSc, COH, FAIOH) MOBILE: 0467 711 027

EMAIL: ian.firth55@gmail.com (mailto:ian.firth55@gmail.com)

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## PROFESSIONAL DEVELOPMENT UPDATE

### ECU January 2020 Update

We wish to congratulate the following ECU Master of Occupational Hygiene and Toxicology students, alumni and staff who were recognised in the Awards presented at the AIOH2019 conference in Perth.



Pam de Silva Medal - Dr Barry Chesson AM (Alumni – PhD graduate)

The Pam de Silva Medal recognises AIOH Members that have demonstrated their commitment to the principles of leadership and scientific integrity in the field of occupational hygiene.

#### Fellow Member of the AIOH - Dr Martyn Cross (Senior Lecturer)

Fellow members must also have made a distinguished contribution to the advancement of the profession of occupational hygiene.

**Post Graduate Scholarship Award - Clare Di Corletto;** Master Occupational Hygiene and Toxicology (MOHT) student

The scholarship will provide for attendance at an AIOH accredited post-graduate course majoring in occupational hygiene, or at an Australian based academic postgraduate course where the subject matter studied is principally occupational hygiene.

#### Leadership and Management Skills Award - Melissa Milo (MOHT) past student

This award provides registration costs for the one day duration 'Leadership and Teamwork' Continuing Education Seminar (CES) run on the Sunday prior to the AIOH Annual Conference.

## Safe Work Australia, Scholars for Worker Protection Award – Carolyn Asbury (k97 OSH major); Hannah Menzies (MOHT) students

Sponsored by Safe Work Australia the Scholars for Worker Protection Award provides a University Students with the opportunity to participate in the premier Occupational Hygiene Conference in Australia. This award is open to Members of the AIOH and non-members of the AIOH that are current university student/s majoring in instructional occupational hygiene theory and practice.

**Best AIOH Conference Electronic Poster Award - Dr Lisa Mills** (MOHT) – yes we have students with masters degrees and PhD's in this course!

Best AIOH Conference Electronic Poster Award is given to the electronic poster judged by the Awards Committee to be the best occupational hygiene electronic poster submitted for the AIOH Annual Conference.

**AIOH Celebration of Achievement Award – A/Prof Sue Reed** (Director, Occupational and Environmental Health and Safety)

The AIOH Celebration of Achievement Award was established to recognise the considerable contribution made by a member throughout an extended period of their careers, to the long-term development of the Institute and the practice of occupational hygiene.

We would also like to welcome two new staff to our group in February 2020, Adelle Liebenberg and Edmore Masaka.

ECU is accepting applications for Semester 1, which starts on 24 February, until 20 February, and will in April start accepting applications for Semester 2 which starts on 27 July2020.

More information about studying occupational hygiene at ECU can be found at: http://www.ecu.edu.au/degrees/courses/master-of-occupational-hygiene-and-toxicology (http://www.ecu.edu.au/degrees/courses/master-of-occupational-hygiene-and-toxicology), or by contacting A/Prof Sue Reed (s.reed@ecu.edu.au (mailto:s.reed@ecu.edu.au)) or at 08 6304 2243.

If you are interested in studying OHS then go to: https://www.ecu.edu.au/degrees/courses/master-of-occupational-health-and-safety (https://www.ecu.edu.au/degrees/courses/master-of-occupational-health-and-safety) or by contacting Dr Marcus Cattani (m.cattani@ecu.edu.au (mailto:m.cattani@ecu.edu.au)) or

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## The University of Wollongong: Enrolments closing!



#### By Jane Whitelaw

News for 2020: We have launched a dedicated Master of Occupational Hygiene degree and reintroduced a Graduate Certificate in Occupational Hygiene as a stand-alone qualification; or as an alternate entry pathway to the Masters.

President Andrew Orfanos took time out at the recent AIOH conference to present us with our Accreditation Certificate.

These courses will allow students even more practical hands-on time with academics who are also practising COH's to concentrate on Occupational Hygiene techniques and apply skills and knowledge to a broader range of workplace issues. **Apply Now:** 

https://coursefinder.uow.edu.au/information/index.html?course=master-occupational-hygiene (https://coursefinder.uow.edu.au/information/index.html?course=master-occupational-hygiene) Contact Jane Whitelaw for more information: jane\_whitelaw@uow.edu.au (mailto:jane\_whitelaw@uow.edu.au)

Commonwealth Supported Places are available for domestic students.

#### **AWARDS:**

A big thank you to the sponsors who continue to support AIOH and the major Awards.

We were again well represented at the annual awards night, taking 4 of 6 major awards:

- Lachlan McPhail Industrial Scientific Conference package
- Alumni and UOW Industry Ref Group member, Kate Cole (with Michael Fisher) 3M best paper for their work on controlling exposures to silica dust in the demolition sector.
- Carmen Naylor (UOW PhD candidate and Alumni) –Drager Young Hygienist award to attend the
   British Occ Hyg conference and conduct scientific visits in Europe
- Peter Aspinall (M OH alumni) Air Met mid-career award to attend the American Industrial Hygiene
   Conference and conduct scientific visits in the US.
- Jen Hines also received recognition for her dedication to our profession and significant contributions to AIOH over many years by being made a Fellow of the Institute; a high and worthy honour.

...And, we won the trivia at the 3M night!

#### **RESEARCH:**

We are also pleased to announce a number of exciting research opportunities commencing in 2020. Please contact Brian Davies for further information: bdavies@uow.edu.au (mailto:bdavies@uow.edu.au)

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## AIOH COMMITTEE UPDATES

### Certification Board

#### **Exams**

The COH Board facilitated a record number 47 exams across June and November 2019. A huge thank you to the volunteers who gave up their personal time to help facilitate the exams across Brisbane and Perth. The results from these exams are consistent with previous years, with success rates remaining just below 50%. Unsuccessful candidates are encouraged to contact the office and seek feedback on their performance so they can address knowledge and skills gaps to improve their chances should they decide to re-sit.

Mid-year exams will be offered subject to demand. Dates and city are to be confirmed with approximate timing set to mid-June. Candidates are encouraged to request a COH-mentor through the Mentoring committee to help them prepare for the exams.

#### **Audit and My COH**

The Audit process will commence this month for those members where their COH cycle ended in 2019. All COH members are encouraged to visit the My COH portal to update their activity and upload evidence relating to that activity.

Felicity the Membership Coordinator also offers personalized refreshers on using the My COH portal for anyone who has been having trouble navigating the site. Contact membership@aioh.org.au (mailto:membership@aioh.org.au) or 03 9338 1635 to arrange an appointment

#### **Board changes**

Following the 2019 conference, Ross Di Corleto stepped down to take on President-Elect position and Natalie Everett joined the Board. A big thank you to Ross for his contribution to the Board over these past few years and welcome to Nat.

Neil Goulding, Chair - Certification Board coh@aioh.org.au (mailto:coh@aioh.org.au)



## AIOH Foundation Update

2019 has been a busy year for the Foundation and 2020 promises to be even busier. We were very excited to announce at the December Conference that our inaugural grant application process is about to open! For organisations to be successful in receiving a grant, their projects must improve the understanding, prevention and control of workplace disease in Australia. More information on the project **grant application process** will shortly be available on the Foundation's website. The conference also marked the launch of the Foundation's first position paper, examining the current gaps in official workplace illness fatality statistics. The paper has had hundreds of views and generated lots of discussion – we hope it will eventually drive real change.

Lastly, 2019 was a year of transition for the Foundation as we bade farewell to some of our augural board members Mel Windhurst, Ryk Eksteen and our Chairperson Charles Steer. All three have made incredible contributions to the Foundation and will remain valued friends of the Foundation. At our AGM we welcomed Rob Golec, Raelene Young and Sally North onto the board joining existing board members Phil Hibbs, Caroline Langley and myself. We are very excited about 2020 as we aim to start to make bigger impacts on the prevention of occupational disease in Australia.

Andrew Bennett

AIOH Foundation Chair

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### AIOH Mentoring Committee

#### **AIOH Conference 2019**

#### **Mentoring Meeting**

- On behalf of the AIOH Mentoring Committee thank you to all the conference delegates who attended the Mentoring Meeting at the AIOH 2019 Conference at Crown Perth.
- As we all know, mentoring offers more than a brain to pick and an ear to listen it's a push in the right direction and offers a range of benefits to both the mentee and mentor.
- The mentoring committee has a strong vision for 2020 and we look forward to welcoming new mentors & mentees.
- Click HERE (https://www.aioh.org.au/static/uploads/files/aioh-2019-jason-greenwfziedweiatk.pdf)for the PPT from the session from the Mentoring Workshop

#### **Mentoring Workshop**

- The mentoring Workshop was very well attended, and this gave the attendees much greater insight into Mentoring and how to run a successful MENTOR-MENTEE relationship.
- Click HERE (https://www.aioh.org.au/static/uploads/files/aioh-2019-jason-greenwfziedweiatk.pdf)for the PPT from the session from the Mentoring Workshop

#### New Committee members - WA & VIC - WELCOME!

- VIC Nirajkumar Shah to step into the shared role with Kerri-Ann.
- WA Dianne Allen to step into this role.

#### Mentoring Testimonials - Very Happy Mentors and Mentees

- Mentee -"My Mentor was extremely generous with his time and made every effort to inspire me to reach my goals even through the difficulties. He never gave up hope in me even when I doubted myself or the circumstances of my life had changed. This inspired me to keep those goals in mind and search for alternative ways for me to reach my goals. I still have a long way to go, but for me I will keep his kind words close to my heart and hope that he can look back one day and say, I remember Mentee, she was the girl that had big ambitions and dreams. Though it wasn't easy, she got their in the end and I helped contribute to that. I still see Mentoras a professional contact that I could get in touch with if I had any questions. Thank you, Mentor, for your time and your support."
- Mentee -"my Mentor has challenged me, been my guide, supported me and provided encouragement in the past two years with my career development and aspirations. I have been able

to learn from her experience, knowledge and apply these learnings in my current employment. Being involved in the Mentoring Program has been invaluable for my professional and career development. I highly recommend the program to any others that are interested in being involved as a Mentor or Mentee."

#### **Reverse Mentoring**

 Reverse mentoring will be a thing in the program in 2020! Check out the Mentoring Workshop PPT (above) for more information.

#### **Mentoring Postcard**

 If you want to email someone with the electronic version of the MENTORING POSTCARD – you can download this HERE (/static/uploads/files/mentoring-postcard-2-wfjuvbcnsegm.pdf). Or contact the Mentoring Chair.

#### We Need Mentors (and Mentees!)

- As per the AIOH broadcast earlier in 2019 'The AIOH Mentoring Program needs YOU!' We have had
  a few mentors and mentee come on-board which have been great! BUT...we still need more Mentors.
  Please think about it and if can spare a few hours a month the mentee from our AIOH would really
  really appreciate it!
- COH Points are earned by Mentors!! 1CM per year per allocated Mentee.

#### **Current Committee Members – Thank you!!**

Thank you for the all the Mentoring Committee – who now looks like – Chris Aebi, Anthony Bamford, Jason Green (Chair), Kerri Ann Jessep, Andrew Bennett (transitioning out in early 2020), Samantha Forster, Brett Young and newbies - Dianne Allen & Nirajkumar Shah.

#### For further information and to join please select from the following:

- Click HERE (https://www.aioh.org.au/education-cpd/mentoring-program) for further information on the AIOH mentoring program.
- Click HERE (https://www.aioh.org.au/static/uploads/files/mentoring-information-package-240518-wfqeyjassawk.pdf)for the AIOH Information Package.
- Click HERE (https://www.aioh.org.au/website-forms/request-to-be-an-aioh-mentor-form)for the AIOH Mentor Form to become a Mentor.
- Click HERE (https://www.aioh.org.au/website-forms/request-to-be-an-aioh-mentee-form)for the AIOH Mentee Form to become a Mentee.

#### Jason Green, Chair - AIOH Mentoring Committee

Jason.Green@greencap.com.au (mailto:Jason.Green@greencap.com.au)

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## External Affairs (EA) Committee

The EA Committee was established just over 12 months ago by immediate past-President Dr Julia Norris. Since then, its members have worked hard to raise the profile of occupational hygiene and the AIOH.

The main success story in 2019 was Breathe Freely Australia, due largely to Dr. Sharann Johnson's sheer hard work. She was responsible for establishing the website, redrafting much of the BOHS material to suit Australian workplaces and working on the roadshows. In addition, Breathe Freely Australia has opened the door for the AIOH to collaborate with new partners, such as the Housing Industry Association (HIA) and the CFMEU.

The other major success story was the establishment of the National Dust Diseases Taskforce. This followed lobbying of the Commonwealth government by the AIOH, as part of a consortium of organisations, including the Royal Australasian College of Physicians (RACP), the Thoracic Society of Australia and New Zealand (TSANZ), the Australian New Zealand Society of Occupational Medicine (ANZSOM) and the Lung Foundation. The AIOH has provided written and verbal submissions to the Taskforce and continues to monitor their activities. The EA committee also responded to a review of the NSW Dust Diseases Scheme, and provided a written submission and appeared in from of the Review Committee.

In W.A., firstly Dr. Barry Chesson, and now Julia have been appointed as expert members of the tripartite WA Commission for Occupational Safety and Health (COSH). This is a very influential role, whereby they can work with the social partners to raise the profile of occupational hygiene in workplaces where traditionally, there has not been a strong focus on occupational hygiene. This has led to roadshow partnerships with the WA government, Master Builders Association and Union bodies. Moreover, this has led to a knock-on effect in other states and at the time of writing, we are working with SafeWork South Australia to deliver Breathe Freely Australia in SA.

Most recently the AIOH has written to the Commonwealth, State and Territory Health Ministers. The AIOH publicly expressed concern about the long-term health of firefighters and first responders working in bushfires. It was felt that there were obvious parallels with the long term effects in 9/11 survivors. This has been picked up in the media, with our President being interviewed on ABC News. For those who missed it, you can watch it here (https://youtu.be/P9A2TIY5upo). This item sparked (!) considerable interest from members and from outside the AIOH, with a number of members sending in scientific papers on bushfire smoke. We have since heard the Prime Minister is considering a Royal Commission on the Bushfires. If this comes to fruition, the AIOH will be making a submission. Also, at the time of writing, the Commonwealth Health Minister has just announced \$5 million funding for bushfire related health research.

The EA committee has been successfully raising the AIOH profile using all available opportunities. Following a meeting with Greens leader Richard Di Natale, the Senator had a motion passed in the Senate, calling upon the government to recognise the need for qualified and competent occupational hygienists to be involved in the recognition, evaluation and control of silica exposures. While still President-Elect, Andrew Orfanos was interviewed last October on the ABC midday News, in connection with silica dust. Julia has since been interviewed on ABC radio in Perth following a presentation on asbestos, and she was also interviewed for a feature article in the Herald Sun, last December.

Most of our activity has been confined to domestic affairs. However, we have written recently to Sen. Faruqi, in which we commended her moving a motion calling on the Federal Government to lobby for a change in policy to end the use of asbestos in Asian Development Bank financed projects. We felt this was an example of where the AIOH could help address a serious problem, outside Australia, in this case, asbestos related disease in Indonesia. We are continuing to work on this through our membership of the IOHA and ANOH, strong relationships with Workplace Health without Borders and personal relations with Presidents of fellow associations in SE Asia.

The committee has a busy year ahead. *Breath Freely Australia* will continue to be rolled out nationally with our partners. We await any further developments from the Dust Diseases Taskforce. We are meeting with the Commonwealth Assistant Minister for Vocational Education, Training and Apprenticeships to raise the inadequacy of occupational health awareness in tradespersons. There may be a Royal Commission into the bushfires, in which we will again raise our concerns. Finally, there is a Senate inquiry into a cancer cluster on the Bellarine Peninsula, which may be related to dieldrin exposure.

Martin Jennings FAIOH, COH, CIH

Chair, External Affairs Committee

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### REGIONAL UPDATE

## NSW Chapter Meeting - Occupational Hygiene in the Construction Industry

LIAISON OFFICERS: Kerry McDougall, John Tiong, Carmen Naylor

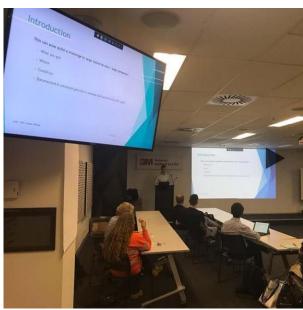
Thank you Andrew Orfanos of Advanced Occupational Health and Hygiene Solutions and now 2020 AIOH President who shared his knowledge associated with the challenges large organisations can face with managing asbestos across their sites at the last NSW AIOH Chapter meeting for 2019. One key topic of conversation was the challenge of developing a consistent asbestos register across the organisation. Asbestos registers are not only a requirement for PCBUs but can provide retrospective assurance that appropriate controls were developed and in place following its removal.

Andrew further highlighted that large industrial sites tend to utilise online software systems to allow all site registers to be made available to both internal and external stakeholders (employees and contractors). The importance of a consistent risk based approach e.g. by utilising a universally consistent risk assessment matrix to risk rank identified ACM's so that these hazards can be effectively managed across the business was also highlighted.

Thank you to 3M Terry Gorman and Mark Reggers for hosting us.

Thank you to everyone who has attended the AIOH Inc NSW chapter meetings for 2019, it was great to meet you all and hope to see you next year. If you were unable to make some of these presentations if you go to the AIOH Website>Events>AIOH Online Content (https://www.aioh.org.au/events-public/events-docs/aioh-online-content) you can find a range of topics presented at State chapter meetings and other presentations through collaborations with industry stakeholders.





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### WA Sundowner - November 2019

#### **LIAISON OFFICER: Kelly Hey**

The WA Chapter's final sundowner for 2019 was held on November 11 at the ChemCentre rooms in Bentley. The session included briefings from various speakers with updates on AIOH activities and Breathe Freely Australia roadshows, as well as some general reminders and tips for mining Health & Hygiene Management Plans based on a number of submissions reviewed by that time.

Dr Silvia Black from the ChemCentre was the main speaker and was given a warm welcome by the audience to speak on "A study of nanodiesel particulate matter (nDPM) behaviour and physico-chemical changes in underground hard rock mines of Western Australia". Silvia is Manager of Project Development at ChemCentre, and in that role leads and manages a portfolio of mineral resources projects that are funded directly by industry and by research funding bodies.

In this case, the collaborative study had a group of objectives focused on expanding current knowledge and understanding of nDPM generation, characteristics and behaviour. In turn, the aim is to provide an improved opportunity for more effective management of exposures of underground miners into the future. In the part of the study led by Dr. Black, tracer gas technology was used as a surrogate for diesel exhaust to examine aspects including the contribution of different sources to exposure of nearby equipment operators and the impact of ventilation on exposure, focusing on auxiliary ventilation at mine headings. SF6 tracer gas was used as it had been shown to provide repeatable and reliable results, with portable FTIR units able to detect concentrations at very low levels and with no cross-sensitivity.

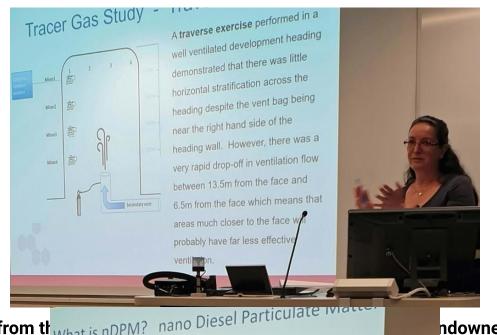
The way the tracer gas was introduced into the atmosphere and the position of the detectors was tailored to the various study objectives. For example, SF6 was released into a truck tailpipe and monitored in cab during representative operation. When the driver opened the window for a few minutes during loading, tracer gas concentrations indicated a nine-fold increase in truck exhaust gas entering the cabin. Perhaps even more significantly it took approximately 20 minutes after the window was closed before the levels in the cabin reduced to what they were before the window was opened.

In another example, SF6 was released into the secondary ventilation system near its outlet in the development heading. This demonstrated there was little horizontal stratification across the heading despite the vent bag being closer to one side of the heading wall. It also showed how areas much closer to the face have far less effective ventilation.

Further details of the study, including the part undertaken by Curtin University and Queensland University of Technology, are publicly available on the Minerals Institute of WA website at https://www.mriwa.wa.gov.au/publications/previous-project-reports/. (https://www.mriwa.wa.gov.au/publications/previous-project-reports/.)

The WA Chapter extends their sincere thanks to Silvia for sharing details of her work with our attendees. Not only was this interesting and informative, it was especially appreciated given Silvia stepped-in when unforeseen circumstances forced a late change to the advertised speaker.

Another vote of thanks goes to those who assisted with planning, registration and administration related to the event, including WA SLO Kelly Hey. And lastly, but certainly not least, we thank the ChemCentre for once again opening their rooms to us and for all of their support throughout the year that ensured the success of the 2019 WA Chapter sundowner series.



Dr Silvia Black from the What is nDPM? nano Diesel Particulate Matter

• Diesel engines generate Ultrafine particles (even Tier3 and Tier4)

not all captured by filtration

• nDPM - Ultrafine particles (< 80nm) behave more like gases

Penetrate deep in the lung

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## MEMBER INSIGHTS

What took me so long?

#### or, How I became an Occupational Hygienist by Richard Manuel

At the ripe old age of 16 in 1945 I started my industrial life as a junior laboratory chemist in the coal gas industry in Port Melbourne, Victoria, and after a brief training period became a shift chemist, working rotating shifts over a three week cycle. As I was working among gas workers I soon became aware of the health hazards they endured. Heat exposure, ammoniacal fumes, carbon monoxide, sulphuric acid and ferrocyanides being some of the hazards I recall. Thick wooden soled boots provided some personal protection for those working on hot retort surfaces (including me) and milk was available for those inhaling pungent gases, but little other protection except for the duty firemen. I felt concern for the working conditions experienced by the workers, but did nothing to help them.

Shortly after I was promoted off shift work, the young chemist who replaced me was asphyxiated from exposure to carbon monoxide on the job and I had to take his place. I decided that was enough of the coal gas industry for me and I left as soon as I could find a less hazardous, day shift job. That was at a dry cell battery manufactory, where the main health hazard for me was the preparation of mercuric chloride solutions used in the process. The only protection advice I received from the chief chemist was to not make any dust while working with the chemical and to wash my hands when I had finished. Needless to say, I soon moved on, to the oil industry, where I found a quite different culture, based on the need for fire safety and the avoidance of product spills.

Among my duties as a chemist, I was required to test atmospheres within confined spaces such as the large tanks, road wagons, or rail tankers holding petrol or other volatile hydrocarbons, ketones etc., using a Poole Explosimeter capable of indicating that an atmosphere was, or was not, explosive and fit, or not fit, to breathe and to provide a written "gas free report" to the supervisor before any work could be carried out within the container, on a daily basis if requested. Confined space entry rules required that those entering the space wore a harness and had a buddy standing at the entry point holding the safety rope. In events where emergency entry was necessary before being gas freed, workers wore a supplied air respirator connected to a hand-cranked blower outside the vessel as well as their safety harness.

When I became branch chemist, with a staff of five, I was able to put into practice some of the management practices I had been learning about, particularly those which took workers' concerns into consideration. I was influenced by the works of Mary Parker Follet, who encouraged "participatory democracy", allowing workers a say in their working conditions. It seemed sensible to encourage workers to have an interest in making their working conditions more congenial, less onerous and safer. So, for example, although open gas burners were used in some parts of the laboratories, but not others, through an open discussion of all of us ( the whole 6!), we reached an amicable decision that all the labs would be non-smoking. My interest in healthier working conditions was growing, but still nascent.

After an extended period in market research and marketing, I became very interested in environmental conservation and control of pollution, which led me directly into the field of OH because the sources of many pollutants originated in the workplace and control there saved having to do so in the wider community. It also gave me the opportunity to do something more positive about the health of workers. The last 20 years of my working life were spent in the field of OH and were the best years of it. I had finally found my vocation – to ensure that those who were exposed to workplace health hazards were protected from those hazards.



**About Richard (Dick) Manuel:** Dick was born in 1928 (now 91 years young) and a retired Fellow of AIOH. He was fortunate enough to be in the first group of students to participate in the OH course established in 1977 at the School of Public Health and Tropical Medicine, Sydney University.

Practical teachers like Tony Findlay, Gersh Major, Alan Rogers, Chris DuPressoir, among others, taught 8 students the essentials of OH and they took that knowledge back to a variety of venues in industry and government organisations. The photo of that first class. Dick is on the right, second row. Barry Chesson left side, back row is still very active in AIOH affairs.

### AIOH CONTACTS

#### **AIOH President**

**Andrew Orfanos** 

president@aioh.org.au (mailto:president@aioh.org.au)

#### **AIOH President-Elect**

Ross Di Corleto

presidentelect@aioh.org.au (mailto:presidentelect@aioh.org.au)

#### **AIOH Treasurer**

Aleks Todorovic

treasurer@aioh.org.au (mailto:treasurer@aioh.org.au)

#### **AIOH Secretary**

Sharann Johnson

secretary@aioh.org.au (mailto:secretary@aioh.org.au)

#### **AIOH Business Manager**

**Kerrie Doherty** 

0498 007 975

kerrie@aioh.org.au (mailto:kerrie@aioh.org.au)

#### **AIOH Conference & Events Manager**

Samira Wadhavkar

0488 733 814

conference@aioh.org.au (mailto:conference@aioh.org.au)

#### **AIOH Bookkeeper**

**Craig Price** 

03 9338 1635

accounts@aioh.org.au (mailto:accounts@aioh.org.au)

#### **AIOH Membership Coordinator**

**Felicity Webster** 

03 9338 19635

membership@aioh.org.au (mailto:membership@aioh.org.au)

#### **Breathe Freely Australia**

03 9338 1635

bfa@aioh.org.au (mailto:bfa@aioh.org.au)

breathefreelyaustralia.org.au (http://breathefreelyaustralia.org.au)