

AUSTRALIAN INSTITUTE OF OCCUPATIONAL HYGIENISTS INC

occupational hygiene MATTERS

Issue # 136 • September 2016



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UPCOMING EVENTS

Basic Principles in Occupational Hygiene

Sydney - October

Gold Coast - November/December

Visit the [AIOH Events web page](#) for further information

FROM THE PRESIDENT • CAROLINE LANGLEY



Welcome to the Spring 2016 edition of Occupational Hygiene MATTERS.

In case you missed it, Council is delighted to welcome our new **Business Manager Kerrie Doherty**, who joined us in early August. She is already making a positive impact finalising our EOFY account processes, and reviewing business systems to improve efficiency.

We have made great progress in the establishment of the **AIOH Foundation**. **The AIOH Foundation Ltd** was officially registered with ASIC on 23 August 2016. Watch out for more exciting news about the AIOH Foundation and how

you can contribute.

Council has been working to represent the profession and give the AIOH a stronger voice. In August we wrote to the WA Department of Mines and Petroleum regarding the release of '**Mining Safety Bulletin 131 Management of Fibrous Minerals on Mining Operations**.' The AIOH had very serious concerns regarding the science underpinning recommendations in this bulletin. Following submissions by industry and the AIOH, Bulletin 131 has been temporarily withdrawn. The Institute will be invited to participate in a working group with industry representatives, regulators and other 'experts' to discuss the hazards of small mineral fibres. Council would like to thank members who made us aware of this publication and assisted us to rapidly and effectively respond.

We encourage all members to **keep the Institute informed** on proposed changes to regulations, guidance notes and industry activities. Drop us an email or call a Councillor. An early 'heads up' helps us to keep abreast of changes, and advocate for regulatory change based on sound occupational hygiene principles.

By the time you read this newsletter, nominations will be open for **Council vacancies**. All full and fellow members are strongly encouraged to apply. The AIOH needs passionate members to step up and be leaders. If you have ever thought you might join Council 'one day', then I really encourage you to 'back yourself and have a go'. Talk to a Councillor about what's involved and the rewards of serving your profession. The 2017 Council led by Philip Hibbs will continue to focus on providing great opportunities that build member skills & networks, our professional voice, and a sense of belonging to a global occupational hygiene family.

Our hard working Committees have been active. Some of their highlights include:

The **Exposure Standards Committee** has undertaken minor revisions and updating of Position Papers. Recent publications on our website include:

- Synthetic Mineral Fibres (SMF) and Occupational Health Issues (May 2016)
- Nickel and Its Compounds – Potential for Occupational Health Issues (May 2016)
- Polycyclic Aromatic Hydrocarbons – Occupational Health Issues (June 2016)
- Adjustment of Workplace Exposure Standards for Extended Shifts (June 2016).





The **Diesel Particulate Matter and Occupational Health Issues (2013) Position Paper** is under review with the Exposure Standards Committee currently considering member feedback on the revised draft. Thank you to all members who provided detailed and extensive feedback.

The Education Committee has **revised** the **Procedure for Accreditation and Re-Accreditation of University Courses**. Council has ratified these procedures which will result in a clearer process for all, and now includes a dispute resolution procedure.

Council is grateful for the work of the Ethics Committee who have completed an **internal review of the 2016 Council operations and achievements**. The results of this review will help the 2017 Council improve its focus and effectiveness.

Council has ratified the Certification Board's revised Requirements for Certification Policy and Procedures that will become effective on 1 January 2017. The Council is pleased to see that ethics training is now a core and compulsory part of the professional development that must be undertaken by all COHs in each 5 year cycle. Council is working towards requiring all members of the AIOH, regardless of grade or status, to undertake regular ethics training. This is in response to the increasing number of examples of unethical practice by professionals and people in public life.

The Awards and Sponsorship Committee is preparing to evaluate applications for generous AIOH professional development awards, when applications close on the 9 September.

September is asbestos in soil month! This month the very popular technical seminar **Asbestos in Soil: Identification Assessment and Management** was rolled out around the country.

Council has been working closely with the Membership and Qualifications Committee on membership applications. As a professional society we need to find ways to encourage our colleagues to join the AIOH as the leading professional body that advocates for their interests in worker health protection, AND supports their careers. We also need to encourage and support each other to move through the grades and seek certification. There are other societies working in the margins of occupational hygiene, and even certifying their members in core areas of our professional practice. We also recognise there are many industry sectors where Occupational Hygienists can make a huge impact that are not widely represented in our Institute such as agriculture and healthcare. We ask you to help the Institute by **sharing your enthusiasm for the AIOH and its work with your colleagues**. Encourage them to join you as a member of AIOH. And don't forget to tell us what is going on in your patch.

Council has been actively considering how we can better connect Occupational Hygienists and facilitate professional networking and discussions. In this newsletter there is more information on the results of the recent member survey on so called **'Special Expertise Groups'** or SEGs'.

Did you laugh with and applaud last year's Ignite presenters? Thought about doing it yourself? **Ignite AIOH 2016** is on again. In five-minute presentations, speakers using 20 slides that auto-advance every 15 seconds. Its funny, moving, inspiring, entertaining and a great high. Applications are still open for this year's Ignite presentations. So get cracking; the submission deadline is Friday October 14, 2016.

And finally if you have been in another universe and not registered for our **2016 'Hygiene that Works' annual conference** there is still time. The 2016 Conference Committee have put together a fantastic scientific program. Make the most of your time by registering for the PD program on the weekend before the conference. Highlights include Dennis Driscoll on Noise Control Engineering, Carter Ficklen on Leadership and Communication, Emily Hass on Dust Control, and Debbie Dietrich on sampling.

AIOH Council and staff are looking forward to seeing you at the conference, 7 to 9 December at the RACV Royal Pines Resort, Gold Coast Queensland.

OUR MEMBERS OUT & ABOUT

Congratulations to Alan and Phylis Rogers who recently celebrated their daughter's wedding in style!

Members, Philip Hibbs, Caroline Langley, Brian Davies, Linda and Michael Apthorpe and, Holly Fletcher, pictured with Alan, Phylis, Heidi and Dean, joined in the festivities at the Wedding of the Year!



PETA'S MOVING ON

We are sad to announce that our superstar Membership Coordinator, Peta Knight, will be leaving the administration team early October.

Peta has decided to change paths and will be pursuing a career in aged care.

On behalf of the AIOH Executive, Council and Administration, we wish Peta all the very best.

She will be missed!

EVOLVE OR PERISH • WHY THE AIOH NEEDS TO BE MORE INCLUSIVE •

PHILIP HIBBS

The AIOH has grown considerably over the past 35 years. We currently have 1000+ members; assets exceeding \$1,000,000; annual turnover exceeding \$1,000,000; and three employees. While the AIOH remains a learned and independent society, it is now a small business and needs to be run as such.

The single biggest risk to the Institute identified by the Risk, Audit, Finance, and Quality Committee (RAFQ), is our long term financial viability. We have run deficit budgets for the last two financial years and the budget for 2016/2017 predicts a deficit of ~\$70K. This is unsustainable and your Council continues to develop and implement strategies to return to an operating surplus. A review of our expenses has confirmed there is little opportunity to reduce costs without substantial structural changes that would reduce services to members. This would be a backward step. Accordingly, strategies to return to an operating surplus must focus on increasing revenue.

One of the strategies recommended by RAFQ is to expand our membership base, and is the focus of this article. This will require some rethinking on the traditional roles of the occupational hygienist by our fraternity. In addition to increasing membership and revenue, the proposed strategy will also be responding to societal change and the evolving role of the occupational hygienist. The mining industry is presently in a slump and manufacturing in Australia is in decline. The traditional role of the occupational hygienist is evolving to incorporate other health, safety, and environment functions with far fewer opportunities to work in pure occupational hygiene. Tomorrow's occupational hygienist will require many more skills and will be responsible for managing related functions and disciplines. Occupational hygienists will also be increasingly employed in different industry sectors such as construction, human health, and agriculture, rather than mining and quarrying, or oil and gas. Consequently, as the role of the occupational hygienist evolves, the Institute must evolve with it or risk becoming irrelevant and going into decline.

This evolution was summed up perfectly by Perdita Dickson in her excellent Ignite session of occupational hygiene in the healthcare industry at BOHS2016 (Ignite Session OH2016 27 April 2016 - Part 3 on YouTube).

The AIOH defines occupational hygiene as the art and science dedicated to the Anticipation, Recognition, Evaluation, Communication, and Control of environmental hazards in, or arising from, the workplace that can result in injury, illness, impairment, or affect the well-being of workers and members of the community. There are professional groups working in specialised areas that use these fundamental principles in the everyday function of their job, but are not viewed as traditional occupational hygiene roles. Examples include:

- Environmental health officers.
- Consultants working in assessment and/or remediation of:
 - hazardous building materials (asbestos, lead-based paints, etc.).
 - illegal drug (clan) labs.
 - mould contamination.
 - indoor air quality.
- Environmental consultants responsible for WHS on remediation sites.

The British Occupational Hygiene Society (BOHS) has observed the phenomena of professionals working in the margins of occupational hygiene who form special interest groups that develop into competing professional societies. This is occurring in Australia. If the AIOH doesn't provide a professional home for these people, they will form their own special interest group, or join kindred societies (safety, air, and environment groups) and be lost to us. Arguably it is better to have them as members of the AIOH where we can ensure they receive opportunities for appropriate training and professional development. The AIOH must welcome these people to our fraternity, and encourage them to up skill and move into our professional membership ranks.

There was significant discussion about this at BOHS2016 and the response of the BOHS has been to introduce specialist faculties within its structure, the first being the Asbestos Faculty. The AIOH doesn't need to develop specialist faculties; we can accommodate these groups within our existing structure.

Council is not proposing a reduction of professional standards or membership requirements, or changing the rules; as noted these groups can be accommodated within the current structure. Section 6.2 of our Rules and Statement of Purpose lists as one of the requirements of both Provisional and Full Membership that the applicant must *"At the time application for membership is made, to be working in the field of occupational hygiene or one of its specialist branches"*. Provided the applicant has sufficient experience for the grade applied for (Provisional – 2 years and Full – 5 years), and can *"demonstrate to the Council that a satisfactory level of professional competence has been achieved"*, they are eligible for membership at that grade.

Council notes there are large numbers of Associate members, who have been members for some time. We must encourage all our members to continue to invest in themselves by seeking professional development and applying for appropriate professional membership grading. The AIOH must do its part by ensuring this process is fair, timely, and efficient, and remove any perceived barriers.

Associate and Provisional Members, Council welcomes and encourages you to apply for higher membership grades. We also encourage you to invite your colleagues to consider joining the AIOH.

MEMBER NEWS

THIS IS YOUR LIFE • DAVID KAMARA



NAME:	David Kamara
CURRENT EMPLOYER:	BHP Billiton
POSITION:	Specialist Hygiene (Occupational Hygienist)
JOB ROLE:	Health exposure risk assessment, evaluation, control and control effectiveness testing
WHAT GOT YOU INTO OCCUPATIONAL HYGIENE:	Two things - the desire to protect workers' health and my love for science, especially Chemistry and Physics; I'm not a nerd though.
FIRST HYGIENE POSITION:	Occupational Hygiene Technician, 2011
MOST INTERESTING JOB:	Designing and communicating a Health Exposure Risk Profile for the Central Maintenance Division in BHP Billiton Iron Ore.
MOST CHALLENGING JOB:	Working as a storeman in a warehouse and studying at the same time.
BEST ADVICE THAT YOU HAVE HAD:	In whatever circumstance you find yourself, make the most out of it.
WHAT ADVICE DO YOU HAVE FOR PEOPLE STARTING A CAREER IN OCCUPATIONAL HYGIENE:	Follow those who have gone before you and learn. Occupational Hygiene is a profession for learners; you are always learning a process. If you are not sure, reach out for help.
WHAT DO YOU SEE AS THE NEW OPPORTUNITIES IN OCCUPATIONAL HYGIENE:	The power of technology to diagnose and control health risks.
ACTIVITIES WITH THE AIOH:	Full Member and a mentee of the AIOH.
HOBBIES:	Reading, going for a walk and reflecting
FOOTBALL TEAM:	Fremantle Dockers. Even when they fail epically I see it as a test of my unwavering loyalty.
FAVOURITE MOVIE:	"Tears of the Sun" directed by Antoine Fuqua, starring Bruce Willis and Monica Bellucci. The movie is about the power of love to save those you don't even know, and the bravery of a soldier to function by his conscious to protect the weak in a deplorable condition of war.
FAVOURITE BAND:	Casting Crowns – Gospel Band
FAVOURITE RESTAURANT:	The Atrium at Burswood in Perth, it's a buffet which means there is no limit to how much I'm allowed.



MARK REGGERS SELECTED FOR STANDARDS AUSTRALIA'S YOUNG LEADERS PROGRAM

Launched in 2012, Standards Australia's Young Leaders Program is designed to bring together Australia's next generation of standards experts. Up-and-coming engineers, technicians and managers are given the opportunity to become involved in national and international standards development, supporting Australian industry, government and consumers.

Ten young professionals have been selected and will be provided with training and direct exposure to the standards development process. Participants will develop the skills required to be successful in the technical committee environment. They will be paired with a mentor and will have the opportunity to attend relevant technical committee meetings for standards development projects and possibly other ISO/IEC meetings hosted in Australia.

Outcomes of the program include:

- Gain a better understanding of standardisation
- Gain the knowledge and expertise to participate on a technical committee
- Learn how to draft standards
- Develop skills to be an effective committee member
- Develop a lasting career network.

Mark is currently an Associate Member of the AIOH.



SPECIAL EXPERTISE GROUPS (SEGs) • OUR MEMBERS SPEAK • BROOKE BEST

In July, the AIOH invited members to participate in an online survey to provide feedback on the development of Special Expertise Groups (SEGs). The aim of developing a series of SEGs was to develop a community with a shared interest in advancing a specific area of knowledge in occupational hygiene. The AIOH aims to provide both structure and support for its members in a SEG which includes providing opportunities for networking, specialist learning, and information sharing relevant to the topic at hand.

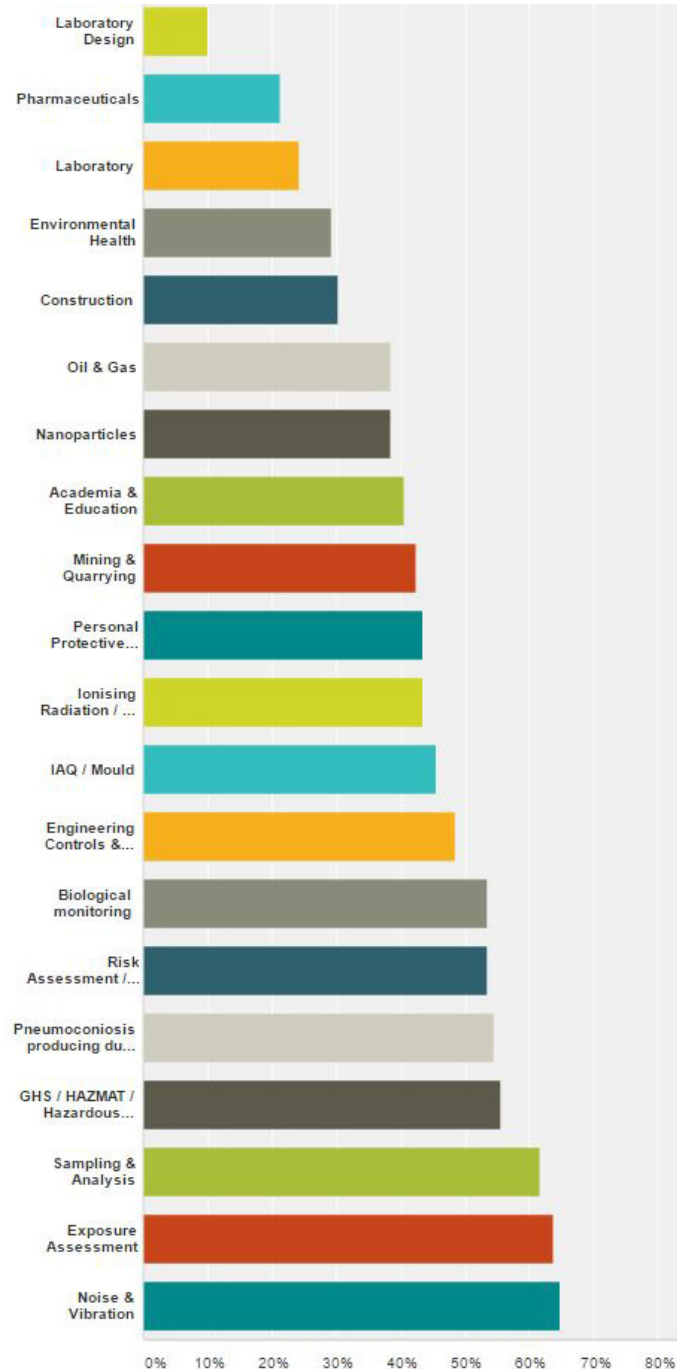
In all, ninety-eight respondents provided valuable feedback to a series of three questions. Firstly, members were asked what SEGs they saw as being beneficial to the membership of the AIOH through providing a set list of examples. The top three choices were Noise & Vibration, Exposure Assessment, and Sampling & Analysis. Secondly, members were asked to recommend any additional SEGs further to the recommended list, and suggestions from our members included thermal environment, legislation & compliance and dermal exposure.

Finally, our members were asked what support they would like to see from the AIOH in a SEG. The majority of our members would like to see the availability of seminars and education series on specialised topics for members and communications delivered to members on particular SEGs.

Several additional comments were received around using the new AIOH website to facilitate the coordination of SEGs, for example the development of collaborative forums where members could respond, links to resources, social media links to relevant SEG members and reference materials.

Council is working on creating a strategy around SEGs that meets with our member's suggestions.

Council would like to thank those members who participated and contributed valuable feedback to assist in further development of this project.



GET YOUR COH STAMP!!



As noted our last edition, the AIOH COH stamp has been redesigned and is available to all certified members for use on reports, email signatures, etc.

You may also be aware that the AIOH recently registered Certified Occupational Hygienist (COH) as a trademark with IP Australia. When using the term on correspondence it may only be displayed as follows:

Certified Occupational Hygienist (COH)®

No other variations (eg COH® or Certified Occupational Hygienist®) are allowable and must not be used.

Your support in using the registered trademark correctly would be appreciated.

For your own personalised stamp, or you have any queries regarding the above, please contact Laura in the AIOH office via email at laura@aioh.org.au.

ACROSS THE COUNTRY

WA CHAPTER • JANINE MCCLEMENTS

Our most recent WA Chapter Sundowner was held on August 22nd, at the ChemCentre Seminar Room, Curtin University, Bentley. First up, as has become customary, attendees chatted and enjoyed drinks and tasty snacks ahead of formal proceedings which were opened by WA SLO, Dr Barry Chesson.

Barry's update of Council activities touched on administrative changes and current initiatives including the proposal for special expertise groups and the focus on improving mentoring opportunities. He also reminded attendees to add a placeholder in their diaries for the final 2016 WA Sundowner scheduled for November 21st.

Barry then welcomed the first speaker for the evening, Professor Klinken, the Chief Scientist for Western Australia. Peter's presentation focused on science and innovation and challenged attendees, and scientists generally, to promote their profession and share its value widely. He gave examples of how science is integrated throughout all aspects for everyday life and went on to identify the strengths Australia has in terms of its science base, particularly in research. He then presented data from various sources in support of an argument that extending this strength to delivering valuable "products" is where our country now needs to focus.

A strategic, forward looking approach for this would need to take into account the changing workplace and incorporate development in STEM education and improvements in collaboration between academia and industry, among other things. The Government has a place in this as well as industry and the scientists themselves. Peter went on to highlight changes that might support investment in science and promote innovation, and suggested WA was well placed to become a hub for innovation and creativity with the right approach applied.

Peter's informative and thought provoking presentation was an excellent lead into the second speaker for the night, Tom Chaney, from Quiet Acoustics. Tom explained some of the background and challenges associated with development of their high performance acoustic panel and this illustrated many of the points Peter made earlier. The good news for Tom and Quiet Acoustics is that they have successfully managed to turn scientific investigation into acoustics and noise control into a useful commercial product distributed internationally.

Of course, this is also good for industry looking for noise control solutions, particularly where low frequency noise absorption is required. Their micro-perforated aluminium honeycomb panel is a relatively lightweight, rigid and versatile product that has been used in a range of applications from heavy industry to hospitality - and the company continues to work with clients to look for new innovative solutions and different ways to use the material.



The WA Chapter of the AIOH would like to thank both Peter and Tom for their interesting presentations and

sharing their insights and experiences with the audience. The assistance of Greg Payne and Sarit Kanabar in manning the registration desk is also acknowledged. Finally, the ChemCentre deserves special recognition for providing the venue, staff to assist with set-up and AV matters, and on-going financial contributions to our Sundowner events.



Prof Peter Klinken and Tom Chaney with WA SLO Dr Barry Chesson

ACT CHAPTER • NICOLA POWER (SLO)

The AIOH ACT Chapter has now been re-established after a bit of a break, and I look forward to getting to know all the members located in the ACT and Southern NSW. So far we've had two events, and it's been great to catch up with familiar faces and also to get to know some of the new members in the ACT.

On the 16th of June there was a casual Meet and Greet event for members to re-connect, then on the 19th of July a joint meeting with the Australian Acoustical Society ACT was held.

Michael Ryan, a new member who has recently moved to the ACT has provided a summary of the event:

The ACT's Chapter conducted a joint meeting with the Australian Acoustical Society ACT group members, held on July 19th at the ADFA on the latest trends in hearing protection in the workplace. The meeting was well attended and it was excellent to see members from both organisations networking and enjoying refreshments prior to the presentation.

Terry Gorman, Senior Occupational Hygienist from 3M, presented to the group the 3M 'E-A-Rfit' system, that showcased the technology's ability to ensure workers are inserting ear plugs correctly and its usefulness as a training tool. Another interesting feature of the system demonstrated to members was the actual hearing protection provided by different ear plugs. It was shown there can be significant variance between the quoted protection levels achieved between individuals. The technology could also be used as an excellent tool to quantify real life noise attenuation for workers. Terry also summarised the various options now available for dealing with impulse noise, which all members enjoyed trying for themselves.

The meeting was a great experience for all and the ACT Chapter would like to thank the ADFA for providing the venue. Thanks should also go to Terry Gorman for the excellent presentation as well as Marion Burgess and Martin Jennings for making all of the arrangements.

TAS CHAPTER • RICHARD JACKSON (SLO)

Whilst it has been very cold in the southern state of Australia we hosted the GHS for Hygienist Seminar on July 6th. A good turnout of AIOH members and non-members made it a successful day (It also gave Richard Greenwood a chance to visit Hobart and check out Festival of Voices!). With a small member base in Tasmania these events allow members a good opportunity to catch up and share ideas throughout the day.

NT CHAPTER • WILL O'CALLAGHAN

With trepidation we stepped out of the Winnellie swamplands and through the pandanas into the Draeger workshop. Much like the explorer's theme from the AIOH conference 3M night a few years ago we had arrived at one of the first NT sundowners with its own presentation and we knew we were going to witness something special.

Brooke Best, the Territory liaison for the AIOH took a small but passionate group from the seedy bars of Darwin to a well organised presentation. The scene was set, Draeger Safety Pacific Darwin offices, and the topic was a sexy one, "Current issues in Workplace Impairment Testing" and our David Attenborough like narrator was Peter Twaddle.



Peter from Draeger took us through the comparisons between oral fluid and urine drug testing and touched on how certain drugs interact within the body. He also explained the technology of how the various testing techniques work. Following the presentation we tested the equipment and had an opportunity to use the various units that test oral fluids for drugs. The equipment tests for opiates, THC, amphetamines, etc and we got a feel for the time frames of the various techniques. Despite what you may think about the accuracies of the various testing methods, i.e. urine testing vs oral fluid, the night was an enlightening experience.

We all had a chance to network and discuss the next quarter's theme which will be a good one... thermal stress! Just in time for the "build up" to the wet season. Once again the NT proves that while we may be a small group of occupational hygiene enthusiasts we have some interesting dynamics to work in.

Thanks to Peter for presenting an interesting topic, Draeger Safety Pacific for providing a venue for the evening and of course Brooke Best for her exceptional organisational skills.



SA CHAPTER • JWALIT PARIKH (SLO)

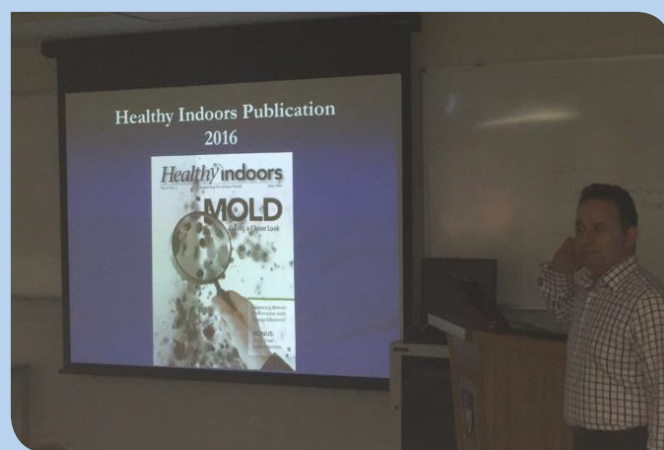
The AIOH SA Chapter meeting was held at lunch time on Friday 17th June 2016. Twenty one people representing industry, defence, government, consulting and academia/research attended this chapter meeting.

Mr. Robert Caporaletti, Principal Microbiologist with over 20 years of experience in the field, delivered his presentation titled "Indoor Air Quality Investigations – Methods, Analysis and Case Studies".

Robert's presentation outlined the history of IAQ dating back to 1970's when the world oil shortage acted as a catalyst to bring changes in the building and construction industry by advocating the need for energy efficient building designs. In the early 1980's, The World Health Organisation (WHO) described the terms Sick building syndrome, Building related illness and Building-associated symptoms, which subsequently had given rise to IAQ testing industry worldwide. Robert also discussed various factors, physical, chemical and biological, within IAQ that can pose health effects to occupants; especially when we are spending more and more of our time (about 90% as per the Financial Review in May 2004) in environments fitted with HVAC systems. A study from CSIRO suggested that poor IAQ costs Australian businesses \$12 billion a year in lost productivity and illness.

Robert also provided an overview of IAQ monitoring equipment and techniques and outlined various leading publications available worldwide on IAQ along with media attention that the topic has received in Australia since 1990's. Various case studies, from simple investigations to complex scenarios, were shared with the attendees.

Robert's presentation was very engaging and insightful with various examples of his experiences and futuristic views on the need for improved codes and guidelines on ventilation and building design, government initiatives, provision of community education and availability of quantitative health based standards and guidelines on IAQ matters.



Ms Shelley Rowett, Chief Advisor Work Environment at Safework SA with experience in the regulatory arena, delivered her presentation titled "Updates and Discussion on the South Australian WHS Regulations".

Shelley provided recent updates on the WHS legislation, including Airborne fibre monitoring, Hazardous Chemicals, GHS requirements and proposal for regulatory auditing of Hazardous chemicals compliance.

The following key changes or proposed changes in WHS Regulations and Codes were discussed.

- Asbestos air monitoring to be extended for another 2 years via transitional regulations. The current regulations indicate that the requirement ceases 1 Jan 2017.
- GHS requirement for hazardous chemical manufactures (and suppliers) and that GHS implementation doesn't require existing workplace chemicals used by PCBU's (and labelled to the NOHSC Code) to be relabelled. Relevant regulations (e.g. Regs 341) are proposed to be changed before the end of the year.
- Labelling is to be done by persons competent in classification and labelling. Placards still need ADG code class symbols, and workplace container labels will require GHS pictograms. Labelling into decanted containers used repeatedly will be redrafted in the Code of Practice as the requirements for information currently do not match with the regulations.
- The bulk tanks are NOT specifically exempted in the WHS Regulations from GHS labels. Placarding and Labelling has to be fit for its purpose, e.g., the tank placards are based on emergency service requirements, and for the workplace containers the focus is on providing information to workers on hazards and appropriate risk controls etc.
- Audits of Hazardous Chemical Compliance are being proposed. If conducted in SA, the audit would include that the PCBU's have registers, SWP and training, labels and SDS are correct and risks of exposure are controlled.



Towards the end the attendees were briefed about the upcoming AIOH seminars and AIOH annual conference. Attendees continued their discussion on the two interesting topics of the day whilst networking over lunch.

The SA AIOH Chapter would like to thank Robert Caporaletti and Shelley Rowett for delivering very captivating sessions, and we look forward to our next meeting planned for September this year.

BASIC PRINCIPALS IN OCCUPATIONAL HYGIENE, BRISBANE • BEN GOVAN



In the heart of Brisbane a small group of eighteen safety professionals gathered at the George Williams Hotel to learn the basics of occupational hygiene. The course presented the opportunity for participants to grow in their knowledge of hazardous chemicals, noise, vibration, dust, light, thermal stress and methods to monitor common occupational hazards.

Beno, Simon, Peter and Gavin each presented their extensive knowledge and enthusiasm for OH, all the while keeping the group engaged with humour and real life examples. The students in the class were not without their merits however, with a wide range of industry and government experience represented in the room; from mining, to manufacturing, to the military.

I was the local government representative in the course and was able to share insights from a Council perspective. My work as a safety advisor for Gladstone Regional Council allowed

opportunities to discuss OH principles as it applies to public servants and the wider community.

Following this course I personally take home knowledge and increased enthusiasm for OH. I look forward to its application within my workplace as we strive for excellence and further implementation of the main objective of OH and WHS professionals alike; to protect the worker.

Ben is an Associate Member of the Institute.



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RESEARCH BITES

RECENT RESEARCH IN THE LITERATURE • DR DEBBIE GLASS

NIOSH eNews - August, 2016 (View as a webpage [here](#)).

In this Issue, there is an article that compares the effectiveness of a newly installed rock-crusher booth to remove airborne particles, namely silica and diesel exhaust during granite crushing activities. The new system fitted with heating, ventilation, and air conditioning (HVAC) and built-in air pressurization and filtration units was installed at the Wausau granite quarry near Wausau, Wisconsin. The article provides a sampling strategy to compare the new operator booth with the old model.

There is an interesting article about deaths from traumatic brain injury due to falls from height in the US construction industry with links to fall prevention strategies. There are also interesting articles about using wipe tests for assessing contamination from hazardous drugs used for chemotherapy, and research linking neck pain to psychosocial and organizational risks.

Annals of Occupational Hygiene

The BOHS Council has approved a change in the name of the Annals of Occupational Hygiene. Beginning with Volume 61, 2017, the new name will be: **Annals of Work Exposures and Health**.

Although the Annals will continue publishing work on traditional areas of occupational hygiene such as aerosol and chemical exposures in the workplace, this new title will be implemented with an expanded scope. (http://www.oxfordjournals.org/our_journals/annhyg/annals_of_work_exposures_and_heal.html). This change is being made to reflect changes in the field of occupational hygiene and to attract a broader range of subject matter likely to have a higher impact on the health of workers.

Annals of Occupational Hygiene 60(4) 2016

This issue has a spectacular cover showing firefighters dealing with a bus/car pile-up. There is an accompanying article exploring the relationship between noise and injury.

There is a brief commentary by Hans Kromhout who is unhappy with an approach to occupational hygiene labelled as "Hygiene without numbers". I share his concern. There is also a thoughtful letter from Kay Tesche about vehicle mechanics, chrysotile asbestos, mesothelioma and compensation.

There are other articles including a couple of articles on dust sampling.

Annals of Occupational Hygiene 60(5) 2016

This issue shows that the Annals is already widening its remit. There are articles on measuring safety climate and on psychosocial work conditions and burnout. The more usual topics are also covered, a sensor to measure dust in a swine building, how well surgical masks protect against surgical smoke, and noise in paper mills. I have to mention a short communication from Australia on the prevalence of silica exposure.

Annals of Occupational Hygiene 60(6) 2016

Something for everyone in this issue, airborne microbiological exposure during waste collection, pesticide exposure for re-entry workers, cobalt and tungsten in the hard metal industry, biological monitoring for PAHs in a foundry, carbon nanotubes, capture efficiency for welding fume extraction and effectiveness of respirators.

Annals of Occupational Hygiene 60(7) 2016

Hot off the press, another great cover photo. See what bioaerosols look like in crab processing. Other topics in this issue include: solar UV radiation in Canada, endotoxins in metalworking fluid aerosols and a useful looking web-based selection tool for respiratory protective equipment.

FROM THE UNIVERSITY OF WOLLONGONG • JANE WHITELAW



In the last Newsletter we reported on preliminary studies Kerrie Burton had undertaken evaluating **"The Efficiency of Respirator Filter Media against Diesel Particulates"** as part of her **S.E.A. Scholarship**. Following on from this work, we received \$88,000 in grants from WorkCover NSW and Coal Services Health & Safety Trust to investigate respirator filtration efficiency against ultrafine particles.

Kerrie and one of her PhD supervisors, Professor Brian Davies recently attended the 20th ETH-Conference on Combustion Generated Nanoparticles in Zurich where Kerrie presented a poster showcasing her latest findings **"Are Respiratory Protection Standards Protecting Workers against Ultrafine DPM Emissions: An Australian**

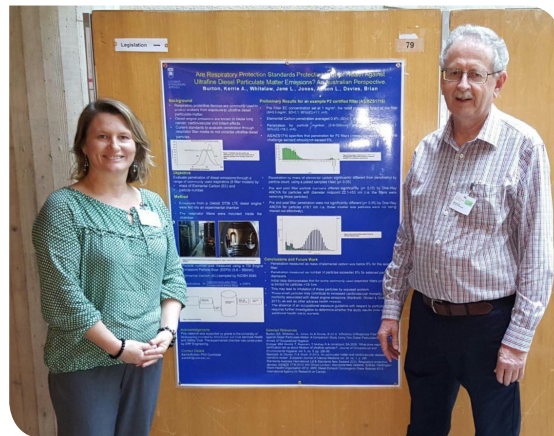
Perspective".

Brian continued his many years of DPM research by presenting a plenary paper on **"Disposable Diesel Exhaust Filters Used in the Australian Underground Coal Mining Industry"**.

Visit the conference website for more information:

http://www.nanoparticles.ch/2016_ETH-NPC-20.html

Stay tuned for more on this research at AIOH2016 on the Gold Coast!



Kerrie with Professor Brian Davies

FROM EDITH COWAN UNIVERSITY • DR SUE REED



With over 300 students in the ECU Occupational Hygiene and OHS Program, 2016 has been a busy year. We are proud of our Masters of Occupational Hygiene and Toxicology (MOHT) students, particularly when we see the quality of their research projects. These supervised projects over one year aim to result in a publishable paper. Recent projects include Indoor Air Quality, Heat Stress and Radon exposures and are all interesting contributions to our science. We also have over 20 other OHS Masters research projects.

The other good news is that from July the ECU MOHT is government funded for all new commencing students.

ECU staff are looking forward to catching-up with students and potential students at the conference on the Gold Coast, so please come visit!

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INTERNATIONAL AFFAIRS

OCCUPATIONAL HYGIENE TRAINING ASSOCIATION (OHTA) • NOEL TRESIDER

There has been a lot of activity with OHTA since June.

- Following from the second OHTA AGM (at the AIHce 2016 in Baltimore), and the expansion of the OHTA board, there are two new directors Chris Laszcz-Davis (USA) (MAIOH) and Alan Leibowitz (USA), both with extensive experience in IH leadership roles.
- OHTA is now a charitable organisation under the United Kingdom Charities Commission. This removes the need to pay UK VAT (20%) and also provides an opportunity for donations to OHTA to be tax deductible under UK law.

I will have more news in the next AIOH newsletter.

WORKPLACE HEALTH WITHOUT BORDERS UPDATE • NOEL TRESIDER

In June an international team comprised of Workplace Health Without Borders (WHWB) members and the Ambassador to Vietnam (Tuan Nguyen) ran the OHTA W201 Basic Occupational Hygiene Course in Hanoi, Vietnam for the National Institute of Occupational and Environmental Health (NIOEH).

The team of five (all certified hygienists) was led by Dr. Elaine Lindars (MAIOH) and was comprised of Dr Mary O'Reilly, Jonathan Haney, Tuan Nguyen from the USA and Noel Tresider from Australia. There were some 50 students including representatives from Laos and Cambodia.

Noel and Elaine presented the director of the Vietnamese National Institute with two copies of the Vietnamese translation of the **AIOH Principles of Occupational Health and Hygiene** book (donated by the AIOH) which was well received.

SPECIAL FEATURE • 2015 AIR-MET SCIENTIFIC AWARD REPORT • DR RAELENE YOUNG



All smiles with Peter Shiels at the AIOH Gala Dinner

I was exceedingly fortunate to be presented with the Air-Met Scientific Professional Development Award by Peter Shiels (General Manager Technical Sales and Product Development Air-Met Scientific) last December at the AIOH conference in Perth. The purpose of the award is to provide a mid-career Occupational Hygienist with the opportunity of professional development through attendance at the American Industrial Hygiene Conference and Exposition (AIHce), a site visit to SKC Inc and up to two other professional site visits. It was a fantastic opportunity and I am very grateful to Air-Met Scientific who sponsor this award, in particular Peter who took the time to accompany me to SKC Inc, Industrial Scientific and the AIHce conference and the AIOH Awards and Sponsors Committee who selected me as the award recipient.

The trip presented me with four development opportunities in three different locations; Pittsburgh (SKC Inc and Industrial Scientific), Cincinnati (NIOSH) and Baltimore (AIHce 2016). Planning the trip to ensure that I complied with the award recipient guidelines meant that I facilitated my professional development site visits prior to attending AIHce. This is a reversal from the standard format and it was very advantageous for me as I had already met some of the AIHce attendees and I could catch up with them while in Baltimore and the time zone changes were not as bad, so I was ready for the breakfast meetings at AIHce. Some advice for future recipients, look for learning opportunities that are within a short flight of the conference location to maximise your time.

My development journey officially started with a visit to the Hearing Loss and Prevention Team at the National Institute for Occupational Health and Safety (NIOSH) in Cincinnati with Dr Thais Morata. However, the journey started 3 months prior to ensure that I could physically get into the Federal facility. There appeared to be an unending amount of paperwork to ensure that I didn't pose a legitimate threat to the facility. I was granted permission to access the facility by the NIOSH administration, but it was still dependent on US Customs approval when I landed at LAX to give me a "WB" stamp in my passport.

But it was definitely worth the effort and I wish I could have spent a week with them. I had previously met Dr Morata at the 2013 Sydney AIOH conference where she presented a plenary on Ototoxicants in the Workplace: Implications for Hearing Loss Prevention. With my primary stakeholder within Viva Energy Australia being that of the Geelong Refinery, I was very interested in learning how I could better manage the health risks associated with Ototoxins in an elevated noise environment.

Dr Morata had arranged for me to sit in on the weekly team meeting, which includes members from the U.S. Public Health Service as a way of introduction to the team. During the visit, the team discussed and they demonstrated their research into:

- Developing instrumentation to accurately characterise impulsive noise exposure.
- Designing engineering controls for noise sources in the construction industry.
- Improving hearing protection, testing methods and rating schemes.
- Establishing surveillance systems for occupational hearing loss.
- Web based noise information through virtual media.

I was also able to try the HPD WellFit™ which is a portable PC-based system that can be used as part of the audiometric monitoring and hearing conservation program to support hearing protection fit-testing with Dr Murphy. The test itself should take less than 5 minutes to facilitate; unless you are an Occupational Hygienist who likes everything to be perfect!

The next stop on my trip was Pittsburgh Pennsylvania, where I met up with Peter Shiels for our SKC Inc. (SKC) and Industrial Scientific site visits. The hotel was located in Downtown Pittsburgh opposite PNC Park which is the home of the Pittsburgh Pirates baseball team. Lucky for me, the Pirates were playing at home against the Braves so I was able to see all the fan-fare that is a baseball game including the fireworks. We missed out on seeing the Pittsburgh Penguins Ice Hockey team play as it was the final series, but they won the Stanley Cup a couple of weeks later. This was a rather big deal to the Penguin fans at SKC who were wearing their Penguin jerseys at work.

Our first site visit was the SKC facilities in the picturesque town of Eighty Four. SKC are one of Air-Met Scientific's suppliers and they are leaders in the development of sampling technology including media and equipment. We were picked up at our hotel by Douglas Dowis, the Vice President of Corporate Development and driven to the site. Interestingly the location of the facility in the township of Eighty Four was selected by the founder Lloyd Guild in 1962, as there was no air contaminants present within the area which would benefit the production of his sample media. The site consisted of several buildings which housed the majority of the business elements; from the creation of the sampling media and pumps, maintenance & calibration of the pumps, hire equipment and the warehouse operations.

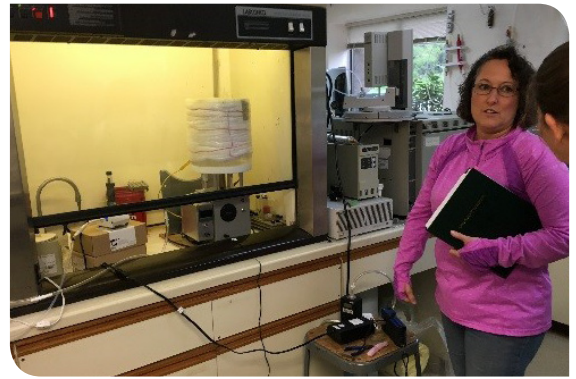
We started the tour in the Research and Quality Control (QC) Laboratories where Cindy (pictured overpage) explained the processes involved with the validation and testing of existing sampling media that SKC manufacture and the testing processes around new sampling media. An item that I had never really considered prior to the visit to the facility was that all of the SKC sampling

media (charcoal, XAD tubes, etc.) are assembled by hand and tested within the facility. The SKC research team were busy with the final stages of the development of their new Chek-Mate pump calibrators, which have now been launched post the AIHce conference.

The weather held out long enough for us to have the traditional photo opportunity with Doug at the SKC sign at the entrance to the facility before heading off to a lovely lunch and back to the hotel.



The following day, Peter had arranged for us to visit Industrial Scientific, who are also one of Air-Met Scientific's suppliers and a leader in gas detection and portable gas detectors. We had a full agenda for the day which included a meet and greet with Scott Hayzelden, a tour of 'One Life Way' with Tom Craig, lunch with Garth Miller (including cake for my birthday), an Introduction to the Industrial Scientific Way with Justin McElhattan (CEO), a product overview with Michelle Hammonds & Brad Day and a demonstration of iNet Control with Joe Buckley.



From left; Raelene, Tom Craig, Kathleen Szczur and Scott Hayzelden in the atrium of One Life Way

The innovative design of the new facility was remarkable. The entire business is housed within One Life Way to ensure a stream lined operation and the ability to collaborate within a team and/or department. Each floor had dedicated team break out and brain storming areas to enable a relaxed conversation. It was very clear that the company vision and values were embedded into the culture of the Industrial Scientific employees. It was interesting to find out that to ensure quality control and the integrity of their gas detectors, nearly all of the components used, from the circuitry to the sensors were manufactured within the building.

After lunch during the Introduction to the Industrial Scientific Way conversation, I had the opportunity to meet one of the founders of Industrial Scientific Kenton McElhattan. Kenton



*Top from left; Raelene, Peter Shiels, Justin McElhattan.
Front: Kenton McElhattan*

still comes into the office on a regular basis to keep in touch with his team and he is still very passionate about the family business. He had a few stories to share including how the business started and his personal history within the mining industry. He particularly loves Australia and our neighbours New Zealand.

We ended the day with the opportunity to view some of the Industrial Scientific gas detectors including the Ventis Pro and the integration with the iNet control program. iNet is definitely an innovative way of tracking the use of individual or a fleet of gas monitors to ensure that they are maintained, calibrated and assigned to the appropriate person.

It was now time for the big event, the AIHce 2016 Pathways to Progress which was held at the Baltimore Convention Centre, Inner Harbor. My personal interpretation of the theme for the conference 'Pathways to Progress' was linked to the American Industrial Hygiene Association (AIHA) Career Stages Initiative relating to the career stages of an Industrial Hygienist. At the conference AIHA unveiled its new Industrial Hygienist (IH) Professional Pathways program that, when fully complete, will accomplish three goals:

- Represent to the public what an IH career looks like
- Provide direction and support for current IH professionals in directing their own career paths
- Categorize essential resources and materials for current IH professionals to succeed at their current position

I was overwhelmed by the initial AIHce program and the number of Professional Develop Courses (PDC) and Technical Sessions that were available. Knowing my personal development goals made it simpler to find the Technical Sessions that I wanted to attend and the PDC that was the most value add. I downloaded the AIHce 2016 "App Nerd" which enabled me to plan what sessions I would like to attend and where they were so that I didn't get lost in the conference venue. The AIHce conference also had support for first time conference delegates which included being buddied with a seasoned conference attendant so that you didn't feel alone among the 4500+ delegates.

On the Saturday night I attended the annual A-Team (Aussie-American IH) dinner. Unfortunately Howard and Florence Kusnetz could not attend the dinner, so John Henshaw (who also was recognised with the ABIH Lifetime Achievement Award at the conference and is an AIOH Honorary Fellow) was left to carry the flag for the Americans with Howard and Florence skyping in for a chat. It was a fabulous dinner with nearly all of the Aussies that were attending the conference present and their partners.



The following day I attended a PDC on Assessing Inhalation Hazards during an Emergency Response. In light of the Inquiry into the CFA Fiskville training centre, I chose to attend this PDC to ascertain if there were any similar scenarios within the United States and any advances in sampling methodology for an emergency response situation. The PDC was delivered from a consultant perspective on how they respond to an emergency when called and simple sampling strategies. It did highlight that the Process Safety requirements within Australia appeared to be more stringent with the requirements relating to the development of Pre-Incident Plans for emergency response than those in the United States.

Following on from the PDC was the first of the AIHce special events (aka Social Events) to kick off the conference. The AIHce Social was sponsored by Chemwatch and it was the only evening social event for all of the conference delegates, with the balance of the dinners by invite only. The Social was very similar to the AIOH Conference Welcome function with a live band and lots of delegates in attendance.

The following morning I attended the First Timer's orientation Breakfast sponsored by Dupont. It was nice to sit and network with other delegates who had not been to an AIHce conference before. Just like me they were using the Conference App to plan their days.

The AIHce opening speaker was Adam Steltzner with the presentation titled 'The Right Kind of Crazy: A True Story of Teamwork and Leadership and High Stakes'. As the Lead Landing Engineer of NASA's Mars Science Laboratory Curiosity Rover Project, Adam engaged the audience with his recount of the leadership skills that supported and engaged his team with the design, build and fly systems that were required to slow the Curiosity rover down from 15,000 miles/hour (at 50 miles above Mars) and deliver it safely to the Mars surface.

The Technical Sessions over the next four days were either concurrent sessions on specific topics or special presentations within the Expo Hall. As the sessions were located in multiple locations within the convention venue, it was very difficult to "chop 'n change" and go to different sessions. Jane Whitelaw provided me with some sound advice at the end of the first day when I was looking a little "frazzled" which was "Choose the sessions that will give you the most value and just stay there." I did start to be more specific with what I wanted to attend over the balance of the conference and it saved a lot of running between sessions and missing the start of presentations that I was keen to hear. Also, I was already beating my daily step count and I had to pace myself. The technical sessions that I was able to attend varied from Noise, Risk Assessment & Management, Real Time Instruments, MSD, Ionising Radiation and Indoor Environment Quality Concerns during Wildfires. Each presentation provided me with a new insight into the topic.

Running concurrently to the Technical Sessions was the Expo Hall which was massive. In addition to the 200+ exhibitors in the hall, it also displayed over 100 posters, had food vendors (as no food is provided like the AIOH conference) and dedicated areas for sessions for exhibitor product demonstrations and presentations. It took over an hour to walk around the expo and that didn't include stopping and talking to the exhibitors. The Expo also provided me with the opportunity to catch up with the SKC and Industrial Scientific teams that I had met the previous week in Pittsburgh. Even with so many delegates you can still find the other Australian Delegates at the conference!

At the close of the first day I attended an International Delegate dinner hosted by the AIHA Board and the International Affairs Committee. This dinner also provided me with the opportunity to catch up with other Australian delegates and International Delegates that I knew through the AIOH.



From left Peter Shiels, Raelene, Caroline Langley, Phillip Hibbs, Jane Whitelaw, Kate Cole

After another day of Technical Sessions, which varied from round table to podium sessions, I was very fortunate to be invited to the 3M SKC Hat Party. The hat party is an annual function for SKC Distributors and employees. However, Debbie Dietrich loves Aussies (just as much as we love her), so she extends the invite to Australian delegates who are attending the conference so that you can dance the night away with the SKC team. It is mandatory to wear the hat that Debbie selects for you. No hat = no entry!

The following morning was the Mark of Excellence Breakfast which started at 6 am. The purpose of the breakfast is to celebrate the contributions made by members and the volunteer community to the profession either through AIHA or ACGIH. This year Dan Anna (AIHA President) took the initiative to include the Air-Met Scientific Award winner (me) in the award recipient list. After attending the full rehearsal the day before to make sure that I knew where to stop, shake hands with Dan, smile for the camera and receive my AIHA

plaque I was all prepared for the following morning. But with so many award winners it got a little crazy towards the end, but I still got the opportunity to go up on stage and shake Dan's hand.

So to finish. I would like to thank Air-Met Scientific for sponsoring the award and to Peter for all of the photos that you took for me while I was away to remind me of what I had seen and learnt. I know that I would not have had the opportunity to attend a conference such as AIHce, visit NIOSH, SKC & Industrial Scientific and further develop as an Occupational Hygienist if it had not been for the Air-Met Scientific award. I would also like to thank my employer Viva Energy Australia for enabling my professional development journey to include time to travel to the United States to attend the conference.



Annual A-Team Dinner

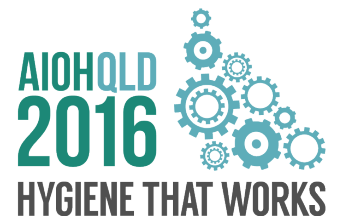


Registrations are still open for the 34th Annual Conference & Exhibition of the Australian Institute of Occupational Hygienists, Inc., at the beautiful RACV Royal Pines Resort on the Gold Coast from 3 to 7 December 2016.

We have an amazing round up of international and local presenters who will be presenting keynote, plenary and Continuing Education Sessions including the **AIHce's highest rating PDC presenter over many years, Dennis Driscoll of Associates in Acoustics, Inc., USA!** Dennis will be the conference's only Keynote Speaker, sponsored by **Safety Equipment Australia**, he will be discussing a Practical Approach to Hearing Loss and presenting a CES on Noise Control Engineering.

Other presenters include:

- Dr Phil Jauncy – Performance Psychologist
- Dr Ian Gardner – Australian Defence Force Occupational Physician
- Kate Jones – Health & Safety Executive, UK
- Dr Emily Haas – NIOSH, USA
- Andrew Cecala – NIOSH, USA
- Dr Malcolm Sim – Monash University
- Dr Deborah Glass – Monash University
- Victoria Arrandale – University of Toronto
- Dr Rob McDonald – BHP Billiton
- Terry Elms – RMIT
- Dr Laurie Glossop – Glossop Consultancy Services
- Debbie Dietrich – SKC, USA
- Ian Firth – IC Firth OHs Solutions
- Glenn Johnson – The Hearing Company
- Carter Ficklen III – Mission Technologies, Inc., USA



In addition to the professional interactivity of the conference, a full trade exhibition will be held as well as our ever popular social functions lending a friendly atmosphere to network and facilitate exchange.

For further information and to register, visit <https://aioh.cvent.com/AIOH2016C>

NEXT EDITION

The next edition of Occupational Hygiene Matters is due out on 15th December 2016 with copy due to the administration office by 1st December 2016.

All copy should be sent to Laura Loschiavo via email at laura@aioh.org.au.

We look forward to your contributions.

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