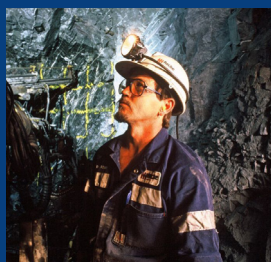


occupational hygiene MATTERS

ISSUE 132 • SEPTEMBER 2015



PRESIDENT • ALAN ROGERS



Since the last issue of President's Notes there has been 2 Executive, 2 Council, and 2 x RAFQ meetings dealing with a combination of routine and developing administration, financial and business activities of the AIOH. We have now nearly completed the end the business year including finalising financial matters as required by Victorian Consumer Affairs and the ATO. The target set in the strategic plan at the commencement of the year in combination with the implementation of the policies and procedures and associated restructuring of staff duties are now paying off in terms of efficiency and output. However there is to be no coasting towards the end of the year.

Our hard working Committees have responded well to the new reporting and accountability system, some highlights for the last 3 months include;

- The AIOH has accredited the restructured course at the University of Wollongong [Masters of Work Health and Safety (Occ Hygiene specialisation)]. A special thank-you for the hard work put in by members of the Education Committee.
- The members of the Exposure Standards Committee prepared Position Papers on Sulphuric Acid and an update on Asbestos to cover issues associated with naturally occurring asbestos, and asbestos contaminated soils and contaminated wastes.
- The Certification Board has revised and updated the certification systems, including the introduction of the requirement for Full membership before applying to sit the exam and or interview process associated with certification.
- Membership & Qualifications conducted a reorganisation of their work program to meet the increased demand for Full member applications in the transition year to sit for certification in 2015.
- Awards & Sponsorship commenced evaluation of applicants for the various members development awards. The committee obtained a considerable upgrade in sponsorship funding and continued commitment from sponsors.
- Brian Eva as Chair of Ethics Committee is commencing an internal review of the 2015 Council work and achievements, this is to be done as a regular function in each future year.
- The Communications Committee and Laura have been beavering away on an upgraded Web page which (fingers crossed) will launch on Monday 26th October. This has been a

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major work and financial commitment by our Administrative staff, Council and the Communications Committee. A newly designed front end will be near complete with updated information. The back end will have integrated administration functions for sending out and receiving fees, recording member details, tracking member attendances at conference, seminars and short courses, and keeping members records to meet the requirements of certification maintenance.

Nominations for 2016 Executive and Council positions are still open until 8 October. We need a vibrant and functional Council to carry forward the AIOH and the services it provides to the members. Caroline Langley will be the incoming President for 2016 and will continue along with the new elected members to deliver the Council visions and strategy. But it needs your direct participation if you want an AIOH that provides service for your professional development and career pathway, whilst the same time providing the intellectual experience associated with a learned society combined with fantastic social functions and the overall feeling of being part of a great profession that cares for its members within the concept of 'the family of occupational hygiene'.

Whatever you do, don't miss the Perth Conference which is sure to be a success due to the great work put in by the 2015 Conference Committee. Some of the sessions will be the commencement of our ongoing Professional Development program commencing on Sunday with the inspirational speaker Perry Logan's CES 'Strengthening Leadership and Teamwork for OH Professionals', and the program also covers the Wednesday morning forum on 'Mentoring and Giving Back'.

VALE DIETER HERRMANN - MAIOH, COH

It is with heavy heart that I inform the membership of the passing, after a long illness, of one of our long serving members Dieter Herrmann.

Dieter joined AIOH as a Full Member in 1986 becoming a COH in 2004. He commenced his career as an occupational hygienist with the NSW Governments Division of Occupational Health and Radiation Control. He later moved to the Occupational Health Unit at South Sydney Hospital and then on to his own consultancy business.

AIOH expresses its condolences to Dieter's family, friends and past colleagues. The funeral service for Dieter is to be held next Wednesday 7th October, further details will follow when they become available.

As AIOH President I will attend to represent the membership and say farewell to a well respected friend and colleague.



EXECUTIVE DIRECTOR • BARRY WESTHORPE



What is meant by the new governance buzzwords we are hearing?

It is becoming increasingly apparent that membership associations and NFP organisations are required to be more accountable, transparent and consultative.

What does this really mean at the AIOH?

- Being answerable for our results
- Being responsible for our decisions and

actions

- Making sure that information about our activities is clear and available upon request
- Making sure that information about the council and committees are clear and available upon request
- Being willing to ask stakeholders - members, groups, individu-

als – their view of a particular issue, strategy or direction and to consider their views before an action is taken

Why be more accountable, transparent and consultative?

- Greater efficiency and effectiveness results from better governance as this involves "getting the house in order", introducing new perspectives and ideas and being in tune with stakeholders needs
- Greater respect by those who take good governance seriously such as governments, businesses and academia
- Greater trust by the public
- With greater regulation in Australia likely, laying the right foundations for good governance now will help the AIOH more easily adjust to any future governance requirements that may arise.

professional development

FOCUS ON CERTIFICATION

MAINTENANCE • RUSSELL BOND

Many COHs are approaching the end of another maintenance points cycle. The certification cycle begins January 1st (of the year following awarding of or renewal of COH status) and ends December 31st 5 years later, and it is a requirement that a total of 40 certification maintenance points are accumulated over the 5 year cycle or 8 points per year.

There is no limit on how many points may be accumulated in any one year.

A minimum of 10 points must be achieved through attendance at approved meetings and educational programs in core occupational hygiene areas.

CM Worksheets are to be submitted at the end of the CM cycle by March 31st of the following year. So, that means March 31st 2016 for a lot of us.

You've done the hard yards and now it's time to claim your due.

There are a number of resources to help you collate your maintenance points:

- COH Points Search - searchable by date, event title, or provider
- COH Worksheet - prompts for points in each section
- COH Worksheet example
- Form for applying for certification points for events not otherwise listed
- Categories for Accruing Certification Maintenance Points - details and definitions of point categories

These are available on the AIOH website in the Certification section. Look for the links at the lower left of the page.

If you have not submitted a course or professional development activity for CM points please do so ASAP.

When submitting your CM worksheet there is no need to submit evidence of certification maintenance, just the completed form, unless you are selected for audit. If you are among the proportion of claimants selected for audit you will receive a subsequent request for evidence. Remember to retain receipts, invoices, attendance sheets, etc to prove your claim.

Examples of annual accumulation of points are detailed below.

Activity	Category	Points
100 % work in occupational hygiene	1	5 points
AIOH conference	3	2.5 points
1 half day CES at conference	3	0.5 points
Total		8 points

Activity	Category	Points
40 % work in occupational hygiene	1	2 points
AIOH conference	3	2.5 points
2 half day CES at conference	3	1 point
Active service on a technical committee eg Exposure Standards Committee	2	1 point
Presentation of paper at AIOH conference	5	1 points
Occupational teaching outside normal work – half day course	5	1 point
Total		8.5 points

Activity	Category	Points
60 % work in occupational hygiene	1	3 points
AIOH conference	3	2.5 points
1 half day CES at conference	3	0.5 points
1 day AIOH seminar	3	1 point
Active service on an AIOH sub-committee	2	1 point
Total		8 points

UOW ACCREDITATION • ALAN ROGERS

The UOW restructured Master of Work Health & Safety (Occupational Hygiene Specialisation) course has now been accredited by the Australian Institute of Occupational Hygienists.

A detailed assessment of the content and delivery of the UOW Course, was conducted by the AIOH Education Committee to verify that the Course meets the AIOH educational and training requirements listed for Full membership and Certification.

AIOH Council has fully endorsed the recommendation, and President, Alan Rogers acknowledged this important outcome by stating “the existence of courses such as this are critical to ensure educational pathways exist for future occupational hygiene professionals”.

As an AIOH accredited course, graduates will satisfy the educational requirements specified in section 6.2.1 part (a) of the AIOH Rules and Statement of Purposes, for Full Membership and then onward to certification (COH). Warm congratulations to Jane Whitelaw, Co-ordinator of the Occupational Hygiene Specialisation, and the WHS team at the University of Wollongong for developing

such a comprehensive theoretical and practical based course. The course also incorporates new learning strategies which enable students to comprehensively apply the key principles of occupational hygiene.



Pictured L to R: Terry Gorman (Honorary Secretary AIOH), Jane Whitelaw (Course Co-ordinator Occupational Hygiene Specialisation), Dr Heather Yeatman (Head of School of Health & Society), Alan Rogers (President AIOH), Dr Robyn Coman (Course Director WHS Program)

Representatives of AIOH Council presented the UOW team and Head of School with a Certificate of Accreditation to mark the achievement.

At the presentation, Alan Rogers remarked “We are confident that current and future members of AIOH will appreciate the existence of high quality post-graduate Occupational Hygiene courses such as those provided by respected institutions such as UOW”.

To apply online or request further information about the UOW Course, refer to the link below:

<http://coursefinder.uow.edu.au/information/index.html?course=BF0FF98B>

research bites

ANNUALS OF OCCUPATIONAL HYGIENE 59(5) 2015 • DR DEBORAH GLASS

Good article on a long term follow up of H&S improvements in 45 small auto collision shops. Reported intervention studies are rare and long term follow up even less common. There was a baseline survey and an active intervention period, described in a previous paper. This survey evaluated the workshops at after 2 years. Sustained improvement was seen in compressed gas handling and PPE but RPE had declined. Receiving post card reminders increased the requests for assistance. It's important to know what interventions are effective in the long term.

Does anyone have similar data that could be published?

There was an article discussing the role of hygienists in reducing smoking among employees.

Australia has two papers in this issue: The article on hydration and physiology among Australian firefighters working in hot conditions showed that core temperature could be raised in these circumstances. The second paper, about the prevalence of occupational exposure to diesel exhaust in Australia, estimates that 1.2 million Australian workers, mainly men, were exposed to diesel exhaust.

The issue also included articles on purging of freight containers, malignant mesotheliomas among rag pickers and carbon nanotubes among others.

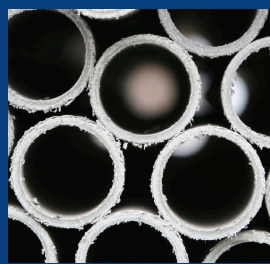
ANNUALS OF OCCUPATIONAL HYGIENE 59(6) 2015 • DR DEBORAH GLASS

This issue has a number of articles on exposure to nanoparticles, looking at occupational exposures and biological effects.

The Australian contribution was a Job-Exposure matrix for exposure to asbestos in Australia. This looks at 224 occupations and 60 industries over four time periods and identifies when the current exposure limit is likely to have been exceeded.

Another article of interest here was a survey of grain dust and microbial exposure in the grain and feed industry in Norway. This suggested that cleaning and process control operations were strongest determinants of exposure but winnowing was the strongest determinant for endotoxin exposure. Endotoxins are associated with the outer membranes of some gram-negative bacteria. The information suggests where exposure controls could be most effective in reducing exposure.

Measurements of exposure in paint mixing showed how realtime particulate monitoring could show important changes in exposure over time.



DEEMED DISEASES IN AUSTRALIA - SAFEWORK AUSTRALIA PUBLICATION • MICHEAL WELLER

In August, Safe Work Australia published a report "Deemed Diseases in Australia" which was prepared by Professor Tim Driscoll, a name many occupational hygienists will be familiar with. The deemed diseases list is used in the various Australian jurisdictions for workers compensation claims. The worker is assumed to have developed the disease in the course of their work, if it is on the list, and where there has been relevant exposure thereby effectively reversing the onus of proof. Of course diseases not on the list can be subject to workers compensation claims however the reverse onus of proof does not apply. The report also includes useful information on infectious diseases.

According to the report deemed diseases lists are not commonly used in Australia as the basis for claims. This is because original lists were developed many decades ago without being reviewed, the lists do not include many diseases for which there is a strong causal connection with exposure; and for other diseases, the connection with causation is often not clear. In this report three criteria are used to determine inclusion on the deemed diseases list:

1. Strong causal link between the disease and occupational exposure
2. Clear diagnostic criteria
3. The disease comprises a considerable portion of the cases of that disease in the overall population or in identifiable subset of the population

There is also a list of diseases excluded from the list because they do not meet all of the above criteria. Later sections of the report include guidance material on each disease e.g. disease description, high risk

occupations/industry and latency periods, thus also providing useful information from a disease prevention viewpoint. Finally there is a comparison with the ILO Schedule 42 List of Occupational Diseases. It is well worth reading.

<http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/deemed-diseases>

On the subject of occupational diseases, released in August was the 4th Annual Report of Australian Mesothelioma in Australia 2014 by the Australian Mesothelioma Registry.

<http://www.mesothelioma-australia.com/publications-and-data/publications>

Also, on the Cancer Council's website is a selection of video presentation from the "kNow Cancer Risks at Work Forum" held in Sydney in May 2015. The event focused on occupational cancer risks within Australia and abroad, namely those associated with diesel engine exhaust, asbestos, pesticides, firefighting and shift work. Other topics included the burden of occupational cancer, epidemiology, workplace cancer clusters, exposure modelling and the Australian WHS regulatory framework.

<http://www.cancer.org.au/health-professionals/know-cancer-risks-at-work>

The Occupational Health Society of Western Australia has a publication called the "Monitor"

<http://www.marcsta.com/news-publications/marcsta-monitor.aspx>

See the August NIOSH research rounds

<http://www.cdc.gov/niosh/Research-Rounds/ResRoundsV1N2.html>

state liaison officers

QUEENSLAND CHAPTER • CAROLYN TOPPING



Risk-based approach to controlling the risks from NORM - Chapter Meeting - October 6, 2015

We are exposed to radiation from a variety of natural and artificial sources. While the concentration of naturally occurring radioactive materials is low in most natural substances, the potential exposure of workers to NORM concentrated by industrial processes needs to be managed.

Dr Ian Ellison will discuss the main features of an effective radiation management plan based on the Queensland guideline for management of NORM. Dr Ellison will give practical examples of effective NORM management and highlight the critical role of occupational hygienists in its management.

This seminar is a must for occupational hygienists in the mining, petroleum and gas, and construction industries.

For further information or to register visit <https://aioh.cvent.com/AIOHQldChapterOct2015>.

SOUTH AUSTRALIAN CHAPTER • JWALIT PARIKH

The AIOH SA Chapter meeting was held at lunch time on Friday 3rd July 2015. Fourteen people representing industry, defence, government, consulting and academia/research attended the chapter meeting.

Ms. Jo Bill, the founding director of PhysioLink, delivered her presentation titled "Conserving the Conservator: Applied Ergonomics in the Art Conservation Industry". Jo is the founding director of PhysioLink. She has worked in the field of Work Health and Safety for over 30 years, providing on-site industrial physiotherapy services, consultant ergonomics services, training and workplace rehabilitation services. She completed tertiary studies in Occupational Health at Adelaide University. Her special interest is the design of workplaces, particularly applied to art conservation, courtroom design, dental ergonomics and office ergonomics. A prototype of her courtroom workstation re-design is currently in use at the Adelaide Magistrates Court.

Jo's presentation outlined ergonomics hazard identification in the Art Conservation industry in South Australia, employee awareness, and designing of in-house tools (e.g. large tilting mechanisms for tables, framing work rearrangement etc) to fit the worker's height and work posture to reduce and eliminate neck, shoulder and back injuries. Her presentation detailed the amount of work that has been done over a period of 8 to 10 years to achieve significant reduction in worker musculoskeletal injuries, with an increase in worker awareness and participation in creative problem solving with respect to workplace design and continual improvement philosophy.

Dr. Michael Tkaczuk of OEH Consulting, University of Adelaide provided the history of the role of the Technical Advice Coordinator in South Australia for the MFS and CFS. Michael also discussed a number of interesting case studies of chemical related emergencies that had occurred at a variety of places and under various situations in South Australia. His presentation detailed the statistics and the prompt responses and advice that was provided to state emergency services.

Informal discussions on musculoskeletal injuries and chemical emergency response were continued among attendees over lunch. The AIOH SA Chapter would like to thank Ms. Jo Bills and Dr Michael Tkaczuk for delivering such informative sessions and we look forward to our next chapter meeting to be held in October this year.



VICTORIAN CHAPTER • SIMON THOMAS

Challenges in the G.H.S poses for Occupational Hygienists - Chapter Meeting - August 3, 2015

On Monday the 3rd of August 2015, the Victorian Chapter of the AIOH held a Sundowner meeting at the Greencap offices in Kew with approximately 30 people in attendance.

The evening began at 5pm with a chance for all attendees to catch up with colleagues and network over drinks and finger food. The formal part of the evening commenced at 6pm with the meeting being opened by Victorian SLO Simon Thomas.

AIOH Executive Director Barry Westhorpe then gave a Council update which elaborated on the four key strategic areas below:

1. Organisational and business development of the AIOH;





AIOH COMMUNICATIONS COMMITTEE UPDATE •

KATE COLE

The Communications Committee have been working with Laura and Council towards developing a new and improved AIOH website. The aim is to ensure the website is resourceful and user friendly, for members and the public. A vendor has been engaged following an extensive proposal review of potential vendors. The Communications Committee established a Website Content document for review and approval by relevant Stakeholders, to outline the structure and content of the new website. Keep an eye out in the near future for the new look AIOH website!

The Committee have also been working with Jen Hines and Brian Davies to develop a webinar presentation for the upcoming 2015 SWA Virtual Seminar Series, which occurs as part of Safe Work Australia month in October. The webinar titled *"What's that cloud? Dangers of diesel exhaust fumes for business"*, will focus on assisting small business with identification, measurement and control of diesel exhaust hazards in the workplace.

The Communications Committee has been busy liaising with the Conference Committee on conference promotion ideas, in particular utilising social media, so be on the lookout for hashtags across social media platforms. The 2015 Conference will again host an Ignite session and the CANARY will be making another appearance!

2. Provision of better quality member services;
3. Member education and professional development;
4. Consolidation and rationalisation of national and international activities and relationships.

Barry also covered the current and long term strategies for the AIOH over the next five years.

Following on was the feature topic of the evening presented by Richard Greenwood. Richard delivered an interactive and energetic presentation on the challenges and impacts that occupational hygienists face as businesses transition to the new Globally Harmonised System (GHS) for the classification and labelling of chemicals.

The GHS applies not only to a company's products, but also any chemicals stored and used within the workplace. Richard explained that as much of the GHS is concerned with health effects, occupational hygienists have a critical role to play in assessing the risk of exposure and providing practical guidance based on this new system.

A very big thank you goes out to Richard Greenwood for an informative presentation and to all meeting attendees.

A very special thank you also to the AIOH for supporting this event.

Congratulations to Theo Karaikos from Incitec Pivot who won the door prize on the evening.



Richard Greenwood in action.

Flood, fire and mould assessment process: The impact of an informed Occupational Hygienist - Chapter Meeting - October 12, 2015

Following a major event and subsequent impact to a building and its occupants whether flood, fire or discovery of extensive mould growth, the initial steps taken by the project team are fundamental to protecting occupant health and mitigating loss.

The critical role that can be played by an informed occupational hygienist in anticipation, recognition, evaluation and control of physical, chemical and biological hazards during these events is often not known, understood or valued by the project team.

The AIOH is delighted to have Brian Murphy presenting on these assessment processes and the challenges occupational hygienists face in this particular area.

Brian will outline some processes, tools and techniques available to hygienists and a logical approach to building assessment methodologies after a major event. Specifically, the key roles and responsibilities played by different parties' and in particular occupational hygienists in pre and post-remediation assessment.

For further information or to register visit <https://aioh.cvent.com/VicSundownerOct2015>.

WEST AUSTRALIAN CHAPTER • JANINE MCCLEMENTS



The AIOH WA Chapter held its third Sundowner meeting for 2015 on Monday 24th August at the ChemCentre Seminar Room, Curtin University, Bentley. This quarter's drawcard was two experienced and knowledgeable presenters speaking to the topic "Making Sense of Noise...", quite fitting given it was Hearing Awareness Week. The evening commenced with attendees enjoying quality drinks and nibbles while taking opportunity to network, renewing old acquaintances and meeting new people.

Dr Barry Chesson (WA SLO) opened the formal session with an update of Council activities relating to their four identified focus areas. He then touched on other points of interest including the AIOH plan to contribute a video to Safe Work Australia's Virtual Seminar Series running through National Safe Work Month this October. Attendees were also reminded of the next WA Sundowner scheduled for November 16 on the topic of Food Forensics.

Barry then introduced the evening's guest speakers, Jim McLoughlin and Stephen Lloyd, from SVT Engineering Consultants. He summarised their background and experience which included, between them, around 45 years work in the field of acoustics.

Jim then took the floor to share some of that with the interested audience, discussing a "common sense approach to reducing noise exposure". While many present would have experience with noise surveys, his point that hearing protection remains the primary risk reduction strategy for managing noise hazards in most workplaces appeared to hit home with the group.

He suggested that while it is often the case that people understand who is at risk in the workplace - and by how much their exposure exceeds limits - it is necessary to also identify the dominant noise sources and how they contribute to that exposure. Application of this information when prioritising controls keeps a focus on the exposed worker so efforts are applied where the difference needs to be made. Jim illustrated his point by stepping through an example noise hazard ranking exercise from AS1269, supported by great visuals that highlighted the effective application of partial exposures in this process.

But of course, Jim stressed that turning this into action relies on first setting clear goals. He suggested that businesses identify their own specific goals as there are many options

Next up Stephen began his thought provoking presentation about noise as "the silent killer ... of business". His introductory mention of sound in use in the LRAD military weapon caught everyone's attention and then he moved on to remind the group of the economic impact of hearing loss related to noise exposure in Australia, estimated to be over five billion dollars annually. (Based on figures from February 2006 report by Access Economics Listen Hear! The Economic Impact and Cost of Hearing Loss in Australia, adjusted for CPI)

Stephen made reference to interesting points in a variety of published papers to expand upon how high noise can impact productivity and performance. Other points highlighted included links between high noise and fatigue, stress, absenteeism and even cardiovascular disease.



From left; Massoud Eshraghi, Sarit Kanabar, Adam Wong, Wayne Powys and Neil Sheridan

Barry Chesson for organising this event along with Jim McLoughlin and Stephen Lloyd for providing such interesting and informative material. Thanks also to Barry and to Greg Payne for manning the registration desk and particularly to the ChemCentre for providing their excellent venue, staff to assist with setting up and AV matters, and their on-going financial contributions to Sundowner events.



From left; Dr Barry Chesson with presenters Jim McLoughlin and Stephen Lloyd

And, if that list wasn't enough to generate concern in business, he reminded us of ways in which high noise can be a contributing factor in accidents, including fatalities. The link between work in high noise levels and elevated accident rates has been studied in a number of papers and extends beyond simple situations where high noise masks a warning signal, for example, to issues involving cognitive overload where too much auditory information has an effect.

In wrapping up, Stephen pointed out that productivity, safety and health are all drivers of business. Being armed with an awareness of the negative impact high workplace noise can have on these drivers can only benefit occupational hygiene personnel especially those involved with justifying exposure reduction activities as addressed by Jim in the preceding session.

The WA Chapter of the AIOH acknowledges and thanks WA SLO

NEW SOUTH WALES CHAPTER • JEN HINES



NSW/ACT members were dished up a double treat at Adlingtons Wine Bar in Wollongong on Wednesday 2nd September. Marion Burgess AM, FAAS, MSc (Acoust) presented “some noise studies investigating effects of noise on cognitive performance” and discussed recent studies in the aviation industry, which found that noise negatively affects memory and that this is worse for ESL subjects. Noise at 65dB

affected performance similarly to a blood alcohol concentration of 0.10 for ESL subjects.

The use of noise cancelling headphones was also investigated (in this aviation setting) and benefits were found for certain tasks.

Peter Adlington provided a great venue and some special wines to test the effect of alcohol on our cognitive performance, and we got noisier as the night wore on. Those who stayed on for a tasty tapas style dinner were also treated to a wine aroma test – it was much easier to drink it than guess the aromas!

Marion Burgess AM, FAAS, MSc (Acoust) has been presenting a series of seminars titled “Noise and Vibration Measurement, Assessment and Mitigation in the workplace- what is similar what is different?” on behalf of the AIOH. The last seminar will be held in Hobart on October 23.

For further information, or to register, visit <https://aioh.cvent.com/2015NoiseVibrationSeminar>



Marion Burgess

AIOH ANNUAL CONFERENCE & EXHIBITION



- ▶ RIGOROUS SCIENTIFIC PROGRAMME
- ▶ CONTINUING EDUCATION SESSIONS
- ▶ TECHNICAL SITE TOURS
- ▶ NETWORKING
- ▶ PARTNER'S PROGRAMME
- ▶ WORLD CLASS VENUE

<https://aioh.cvent.com/AIOH2015>

special features

AIR-SCIENTIFIC PROFESSIONAL DEVELOPMENT AWARD TRIP •

KERRIE BURTON

One of the benefits of being an “old hygienist” is that you can apply for the Air-Met Scientific Professional Award and I was fortunate to receive this honour at the 2014 AIOH conference. This award provides travel to the US to attend the American Industrial Hygiene Conference (how cool is that!) as well as a number of professional development visits.

First stop on my tour was Chicago where I met Lisa Brosseau and Margaret Sietsema at the University of Illinois, School of Public Health http://www.cade.uic.edu/sphapps/faculty_profile/sphFaculty-Ind.asp?i=brosseau&d=&alpha=B. I have been referencing Lisa's work as part of my Masters Project at the University of Wollongong and had the opportunity to briefly meet her and Margaret, her newly awarded PhD student last year, as well as attend presentations on Margaret's work on evaluating Simulated Workplace Protection Factors for health care workers. It was also interesting to hear Lisa's presentation “The Challenges of Delivering an Integrated Workplace Safety and Smoking Cessation Intervention in Small Manufacturing Companies” and discuss some of the learnings from this work.



From left; Kerrie Burton, Margaret Sietsema and Lisa Brosseau



Margaret Sietsema outside her simulated workplace chamber

Next stop was Salt Lake City for AIHCe. The conference began with The A-Team dinner (Australian-American IH Team) which has been an ongoing tradition since 1984. This is hosted by Florence Kusnetz and AIOH Honorary Fellows Howard Kusnetz and John Henshaw who have amazing careers associated with industrial hygiene and have been mentors to many AIOH members over the decades.



From left; L Carol Aylett, Alan Rogers, John Henshaw, Florence and Howard Kusnetz, Noel Tresider, Phyllis Rogers, Peter Shiels, Caroline Langley, Jane Whitelaw, Kerrie Burton and Brian Davies

I attended a professional development session prior to the conference called Developing the Business Case – Financial and Non Financial Aspects. AIHA in their Strategy Portfolio Recommendation have suggested that “IHs need to develop skills to demonstrate their value”. This session followed through some examples of this based on the [AIHA Value Strategy](#) and worked through some of the tools to calculate value, both for financial and non financial aspects of control strategies.

The opening session was amazing and after the fanfare, Alison Levine – Team Captain of the first American Women's Everest Expedition talked about High Impact Leadership which had us all wanting to go out and climb mountains.

Noel Tresider's William P. Yant Award presentation was titled: “Advancing Industrial Hygiene World Wide: Do we have enough people with IH technical skills? IH Certification Programs around the World.” Noel discussed some of the data he has collated to evaluate whether we have enough people with occupational hygiene skills worldwide. By Noel's calculations, whether by GDP or labour, we need many more people with these competencies, especially in Asian countries. His recommendations include to grow competency and capacity worldwide under the Occupational Hygiene Training Association (OHTA) (www.ohlearning.com), which provides peer reviewed training material that is freely available. The Australian group felt very privileged to have the 3 living Australian Yant Award winners <https://www.aiha.org/get-involved/outreach/Pages/AIHA-Awards-and-Honors.aspx> at the conference being Alan Rogers, Brian

Davies and Noel Tresider. Talk about #hygienegods.



From left; Alan Rogers, Noel Tresider and Brian Davies

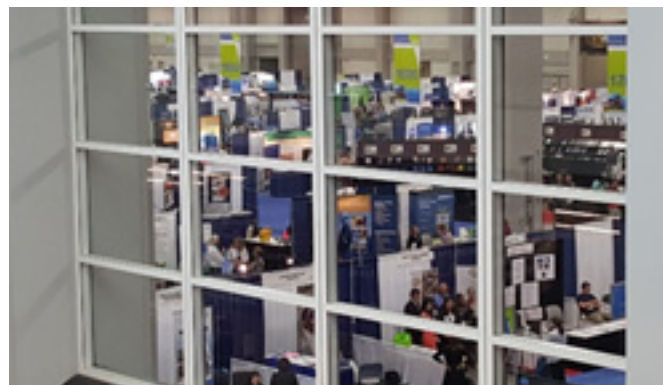
We finished Day 2 with the SKC hat party which is another highlight of the social program and benefit of being the Air-Met Award winner. This was a fantastic opportunity to hit the dance floor with Debbie Dietrich, who is much loved by the Aussies.



From left; Peter Shiels, Kerrie Burton and Debbie Dietrich

Attending AIHCe has always been on my bucket list, I've read previous award winners reports and found it hard to fathom that after attending the AIOH conference with 500 attendees, AIHCe2015 had almost 4000 attendees. I had marked up the conference app with my schedule, planned on meeting up with old and new occupational hygiene friends, a secret mission from Simon Worland, the AIOH 2016 conference chair, to find great papers and a personal quest to get a photo with #hygienegod D. Jeff Burton, who shares my husband's name.

So, what can I say about AIHCe2015 <http://aihce2015.org/> ? The expo was huge – there were so many booths and the poster exhibition was fantastic. They also have a PAL program where first time attendees are matched with a buddy – mine was Anne Kogut, the Industrial Hygiene Manager from Clemson University Office of Research Safety, who I really enjoyed getting to know. The technical presentations were of a high quality – it is amazing how many research institutions there are in the US that all seem to be conducting high quality research.



A view of some of the expo

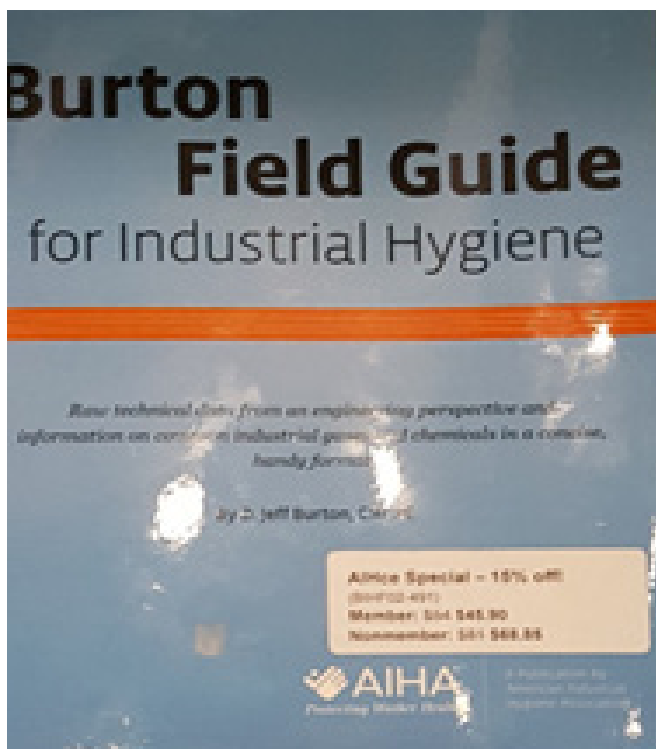


From left; Janes Whitelaw and Holly Fletcher enjoying the expo

I delivered my podium presentation on “Particle Size Penetration of Diesel Particulate Matter through Respirator Filter Media”. This introduced some additional research undertaken whilst doing a Master's of Science by Research at the University of Wollongong, under a scholarship provided by the S.E.A. Group, and set the scene for future work. What can I say about presenting in front of international experts – scary but worth it! I was thrilled to have the majority of Australian attendees in the audience for support, including Holly Fletcher, blog host of younghygienist.com, who is a past alumni of UOW Masters in Occupational Hygiene Science Program <http://coursefinder.uow.edu.au/information/index.html?course=BF0FF98B>, Dr Brian Davies who was instrumental in getting the program started and a great support for my Research and Graham Powe, Managing Director of the S.E.A. Group, who funded the scholarship. Most importantly I was grateful to have Jane Whitelaw <http://socialsciences.uow.edu.au/has/contacts/UOW182639.html> in the audience, who, along with Professor Alison Jones, has been my fantastic supervisor over the last 18 months.



There were so many great presentations at the conference that inspired me from the perspective of my work at BlueScope, my research, as well as getting ideas for our own events at the AIOH, which most of the Australians including our president Alan Rogers and President Elect Caroline Langley (representing our Executive Director) were also busy with. And what about the photo with Jeff Burton? Unfortunately I missed out - the photo below will have to do for now.

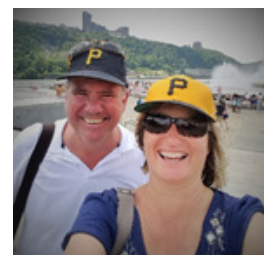


Finally I got to fit in some sightseeing and what a fantastic way to end my time in Salt Lake City, Utah. A walk up into City Creek Canyon and listening to the Mormon Tabernacle Choir were definite highlights.



Mormon Tabernacle Choir Rehearsal

The final stop on my Air-Met Scientific Professional Development tour was Pittsburgh, Pennsylvania and it was great to meet up again with Peter Shiels, General Manager Technical Sales and Product Development [Air-Met Scientific](#). We had the opportunity to do some sightseeing on the Sunday and practice the art of selfies (if only we had a selfie stick).



Together we travelled with Doug Dowis, Managing Director of SKC Asia (pictured left), to the town of Eighty Four, PA, for the site tour of [SKC Inc](#). SKC Inc was founded in 1962 by Lloyd V. Guild as the Sorbent Kit Company and when a patent for development of charcoal tubes was offered by NIOSH, Lloyd successfully started manufacturing charcoal tubes.

Our visit began in the Research and QC labs, where some of the team were recovering from the successful launch of the new [AirChek TOUCH](#) sample pump at the AIHCe conference. I learnt about some new projects including evaluation of a film material for the bag sampling market and was interested to learn about the aerosol generator from Saulius and Dan and its use in evaluating potential products. The tour extended to the manufacturing buildings where sorbent tube filling occurs – 100 of the 226-01 sorbent tubes I use regularly are packed every 16 minutes. Another highlight was the demonstration by Matt of the sealing process for these tubes.

That evening Peter Shiels had organised to attend the baseball with Dennis Collins from 3M and his wife Chris. We were looking the goods (well we thought so anyway) as we had t-shirts and caps supporting the Pittsburgh Pirates who were playing the Milwaukee Brewers. It rained during the match and I missed the single run that was scored to the Brewers, but we had a great time anyway.



Linda showing a film bag under evaluation



From left; Dennis Collins, Peter Shiels, Kerrie Burton and Chris Collins

The following day we headed out to [Industrial Scientific](#), which also has a proud history in Pittsburgh. This family company began when Kenton McElhattan worked as an accountant for the National Mines Company. Kenton purchased a microscope for the Research group set up to look at Developing Gas Sensors and when questioned about the expenditure of \$600 for a second hand microscope to be used by the group, wrote a personal cheque and Industrial Scientific was born. I was greeted by the current CEO, Justin McElhattan who proudly showed off the new headquarters, purpose designed and built to encourage innovative thinking and collaboration amongst the team. I was impressed with the culture, philosophy and history of the Industrial Scientific Brand and their vision to eliminate death on the job by the end of the century.

During the day I had the opportunity to hear about products being developed, the training that supports the products, the new Predictive Solutions side of the business as well as a tour of the facility and it was clear that everyone I met during the day was engaged in the company's "One Life" philosophy. We were also privileged to join Justin and his family for dinner at his home for the many guests that were visiting, and also to meet Kent McElhattan and hear about his current business interest [Discovery-robotics](#) which is focussed on "innovating solutions for the workplace that increase safety and productivity simultaneously".



From left; Peter Shiels, Kerrie Burton and Justin McElhattan



Maurice working on a new area monitor prototype

The following 2 days I had chosen to visit NIOSH, in particular the National Personal Protective Technology Laboratory (NPPTL) and the Mines Safety and Health Administration (MSHA). The tour commenced with me giving a presentation to a number of the researchers about my [UOW Masters by Research](#) project and I really appreciated the ideas and feedback they provided. It was a privilege to meet with Samy Rengasamy, who along with his colleagues, has published widely on penetration through respirator filter media of various nanoparticles which I had referenced for my research.

I also met with Jim Noll and Aleksandar Bugarski from MSHA who described some of their projects on Diesel Particulate Matter and noise control, and was fortunate to see some of the current research they are undertaking. The afternoon was spent with Bill King who described his current project on work of breathing.



NIOSH Researchers from NPPTL and MSHA at my presentation



Aleksandar Bugarski and Jim Noll

The following day I travelled to Morgantown in West Virginia with Colleen Miller, who has been actively involved in developing the ISO respirator standards, and it was great to hear from her perspective some of the benefits of an international performance based standard as well as some of the challenges it will bring if adopted (as well as hear about other really cool work she has been involved in such as being present at NASA launches and meeting President Obama). In Morgantown we met with Chris Coffey and his team, where we saw and discussed many of the research laboratories including the comparative testing between Corn Oil and NaCl as a challenge aerosol for fit testing. The NPPTL is also expanding their activities to incorporate other types of PPE and I toured the testing facilities for these - a key focus seems to be on requirements for the healthcare industry as well as specialised groups such as firefighters and emergency responders. Another project for Colleen is in developing a combination PAPR with CRBN capabilities.

It was also great to meet with Dr Ainsley Weston and some of his team in the Division of Respiratory Disease Studies and I was interested in how they determine their strategic priorities as well as the health screening they are recommending. By the end of the trip it was a case of research envy, the team certainly appear to be well resourced to fulfil their various research priorities.

I am extremely grateful to Air-Met Scientific for providing such a

fantastic opportunity and particularly Peter Shiels, General Manager Technical Sales and Product Development Air-Met Scientific, for his diligence in accompanying me to SKC and ISC and ensuring the site visits were productive, as well as the AIOH for making this award possible. I encourage all members to consider applying for an award this year – it is the opportunity of a lifetime. <http://www.aioh.org.au/awards.aspx>.

DRAGER SAFETY PACIFIC YOUNG HYGIENIST AWARD TRIP • MITCHELL THOMPSON

Winning the 2014 Dräger Safety Pacific Young Hygienist of the Year gave me the opportunity to attend the International Occupational Hygiene Association (IOHA) conference in April, 2015. This year, the IOHA conference was organised by the British Occupational Hygiene Society (BOHS), and held at the Hilton Metropole in London. Although a little more on the chilly side, I was extremely excited to arrive in London. As it so happened, ANZAC remembrance day was held on the first weekend, so I was lucky enough to get down to Westminster to witness the wreath laying ceremony by various officials including Queen Elizabeth. Although I was little far from the action, I was in a great spot to see the marching bands and veterans.

My first taste of the conference was attendance at the Professional Development Course, 'Effective Industrial Hygiene Management of Petrochemical Turnarounds and Related Projects'. The course was run by two fantastic presenters in Mr Kit Penniall (ExxonMobil) and Ms Stephanie Carter (Veritox Inc.). It was attended by 10 persons, with all of them having worked extensively in the petrochemical industry. With the exception of some post graduate studies, I had done very little in the petrochemical industry – hence my interest in the subject.

One creative and meaningful explanation of the work we do within industry was cited during the course, it was 'rather than slowing down work, we actually implement minimum requirements to maximise productivity'. Hygienists recommend proactive actions which will ensure the future health of workers and subsequently maximise productivity in the workplace.

I was interested to hear that hygienists in the petrochemical industry also have difficulty integrating occupational hygiene into their systems. This appears to be a difficulty experienced across most industries, including construction and manufacturing. This in fact was a major topic touched on by many throughout the conference, with continual focus and weighting given to safety and minimal effort put into health.



The march on ANZAC Day at Westminster, London



IOHA Trade Exhibition – pictured with the UK Dräger representatives and Mr Alan Rogers

The conference kicked off on the Monday with a fantastic lecture from Dr Paul Dolan. His talk was focused on the automatic response and how it is influenced by external triggers and the scenarios we find ourselves in. He discussed the theory of behavioural change and how you can get people to do almost anything if the message or directions are conveyed by a trusted and authoritative figure.

In order to test this theory, there was a study in Zimbabwe where hairdressers were trained in HIV prevention and condom use. He said 'who wouldn't trust a person holding scissors above your head, though judging by the look of some of you, you probably shouldn't have'. These and other studies demonstrated that by conveying a message in an effective way for that target audience, behaviour could be influenced in a positive way.

Another enjoyable keynote was provided by Dr Alan Goldberg, who discussed in some depth the revolution in the shift from animal to cellular in-vitro testing. Animal testing in the past was shown to be quite inaccurate in some cases. Dr Goldberg stressed the point that a shift to studies which provided accurate and meaningful data was paramount.

I was also lucky enough while at IOHA to see one of my university lecturers, Mr Noel Tresider, receive the IOHA lifetime achievement award. His speech was moving and struck a note with the attending delegates. His belief was that the 'Art' had been lost or was slowly disappearing from the profession of occupational hygiene. With the introduction of new technologies that do the thinking for you, professionals were

no longer incorporating the 'Art' aspect into their assessment approach. However, he did provide hope – indicating that the 'Art' could be preserved through mentoring of young professionals.

A plenary talk that resonated with me was provided by Mr Steve Hails, who was the Health & Safety Director on the Cross Rail project in the UK. The project involved tunnelling 26 miles underground to facilitate the construction of an underground rail network. He called upon hygiene professionals to continue our quest in mitigating exposure to hazards and reducing occupational health-related disease.

Another excellent plenary was presented by Dr Alistair Fraser, who stressed the critical nature of engagement in driving positive health and safety outcomes. He touched on programs (e.g. night school courses for employees) which increased engagement and led to a reduction in lost time injuries, with a subsequent increase in productivity.

Kate Jones of HSL, one of the 2014 Bedford Prize winners, presented on health issues regarding the use of isocyanates in motor vehicle spraying. Kate explained that previous research did not consider the mist from spraying, nor the clearance time within the ventilation enclosure once spraying was completed. One of the major sources of exposure was due to workers lifting their respirator face shields prior to isocyanate mist clearing the ventilation enclosure. The study visually identified, through the use of a backlit room, that isocyanate mists were still present (post spraying) after 40 seconds. The study successfully reduced the incidence of occupational asthma, through engagement and education within industry.

I was also lucky enough to be involved with a presentation on Career Development. The session was presented by Mr Steve Perkins and Ms Kate Cole. The primary aim of the 'chat show' style session was to get feedback from both young and more experienced professionals regarding their development in the field of occupational hygiene. The young hygienists involved were Ms Alison Connolly (Ireland), Brian Schmidt (South Africa) and myself. The experienced hygienists included Dr Alex Bianchi (UK), Ms Barbara Dawson (USA) and Mr Alan Rogers (Australia). Some of the primary take home points were to ask questions, think big and give back to the profession. It was reinforced how lucky we are to be in a paid profession designed to improve the health outcomes of others.



Answering a question during the IOHA Career Development panel session. Also pictured Mr Steve Perkins and Ms Barbara Dawson

These lectures were only a few of the many I enjoyed at IOHA. On top of the lectures, there were also some terrific social events, with the highlight definitely being the Monopoly Themed Gala Dinner. There was something for everyone, with a live karaoke band at the front and a monopoly casino at the back. All of the social events offered a great opportunity to catch up with old friends and also forge new professional relationships with people from around the world.

After a big week in London, I was excited to head north into the countryside and on to Buxton to the Health & Safety Laboratory. The train ride from London was beautiful with fields and fields of lush greens rushing by my window. Upon my arrival I was picked up by the Health & Safety Laboratory transporter. The driver was extremely reassuring as he proceeded to tell me all about the plethora of crashes, along the very road we were travelling on, "The Cat and Fiddle" from Macclesfield to Buxton. Luckily we made it up to HSL in one piece.



At the Health & Safety Laboratory (HSL), pictured with Mr Matt Coldwell and Ms Kate Jones

Upon my arrival, I was met by Mr Matt Coldwell (Chartered Occupational Hygienist) who was to be my guide for the day. One thing I noticed as soon as I got there was how welcoming everyone was. It was great to see how passionate they were about their profession. Matt took me for a drive around what is a rather large facility - their services are extensive and include explosive testing, nuclear associated testing and setting up train crash scenarios to test the integrity of vessels transported by the trains.

Matt had arranged meetings with a number of persons throughout the facility. First up was Mr John Saunders (Principal Scientist), who worked primarily in the area of ventilation. He showed me a full scale mock-up of an electroplating facility as well as other ventilation enclosures used for testing. They're currently working on a project to define the effectiveness of various controls in the electroplating industry.

Next stop, Ms Liz Brueck (noise expert) took me into the sites anechoic chamber which is used to test the sound power of various pieces of plant provided to the laboratory. With the exception of the concrete floor, there were no other surfaces for the reflection of noise. It was extremely eerie, with the surrounding atmosphere just feeling dead....that's the only way to really describe it. Liz then passed me on to Ms Emma Shanks (from the Noise and Vibration Team), who took me through the vibration services provided by HSL. They have really simple but effective demonstration devices which help industry to understand how tool maintenance and care is paramount if you are to minimise resulting noise, and vibration in particular.

My next stop was with Mr Nick Vaughan, Technical Lead – PPE. He was great, taking me through a lot of the respiratory protection tests they currently conduct at the site. They have some great equipment used to simulate breathing in order to trial various types of respiratory protective equipment. Another great innovation is pictured overpage. The head is mounted in a sealed box which can be injected with smoke.

Prior to this, a respirator is affixed to the head. A diaphragm is then drawn, drawing smoke through the respirator in order to check filtration efficiency and facial fit. Smoke observed in the transparent diaphragm indicates the respirator may not have been fitted correctly or does not provide suitable filtration (i.e. protection).

Nick also showed me a number of respirators which had been sent for testing due to failure in the field. It was truly astonishing the level of disrepair some of the respirators were in. My last stop for the day was in the Biological Exposure Monitoring department with Ms Kate Jones, one of the recent Bedford Prize winners! She gave me a brief overview of the laboratory functions as we walked through the various areas of the facility.

Overall my visit to HSL was a fantastic experience, but I get the feeling I only scraped the surface, with so much more to learn about this facility and the amazing people who work there!

The next item on my itinerary was to meet with Mr Steve Perkins (Chief Executive) at the British Occupational Hygiene Society (BOHS) headquarters in Derby. It was great to check out the office, meet the staff and hear about the upcoming initiatives the BOHS is involved in.

Up next was Edinburgh, to visit the Institute of Occupational Medicine (IOM), and another amazing and welcoming group of people. Dr John Cherrie had organised for me to meet with various experts from within the IOM. Firstly, John provided me a bit of background regarding IOM past and present. It was interesting to hear about all the past work IOM has done, especially the research regarding coalworkers' pneumoconiosis (1971) which has formed the basis for exposure standards around the world. The IOM is a not for profit organisation and I was interested to hear the evolution the organisation has gone through in order to remain sustainable (e.g. provision of consulting services) while still continuing with their all-important research. It was excellent also being able to discuss with John the background of the research into the lower exposure limits / action values for inhalable and respirable dust. These are limits that have been recommended as "Dust NOS" trigger values in a position paper by the AIOH (2014).

Some interesting takeaways from the meetings at IOM included:

- the use of nanomaterials for anti-slip, self-cleaning properties in ceramic tiles and hearing about the use of titanium oxide to treat road pavement in order to reduce air pollution;
- hearing about the current ergonomic projects including man in suit testing for vapour and liquid ingress / protection;
- the use of wearable sensors to mitigate over exposure to ultraviolet radiation, and;
- current research into Exposure and their upcoming challenges in further refining the estimated exposure more accurately.

I'd like to sincerely thank Professor John Cherrie, Dr Araceli Sanchez-Jimenez, Dr Richard Graveling, Dr Miranda Loh and Dr Hilary Cowe, without whom I would not have had such an informative and enjoyable visit.

Next I was off to Lübeck (the train conductor seemed to almost sing it), Germany. What an amazing city, one which I would love to visit with my family in the future. Dr Wolfgang May had organised a city tour for me one morning, which was absolutely splendid. I learnt about the history of the city and managed to get some excellent photographs of the various historical landmarks and architecture. Then we went on to the manufacturing facility for Dräger. Here I observed the production of various sensors, colourimetric tubes and direct reading devices. I was also shown the manufacturing process for their respiratory protection filters. This was all presented by Dr Wolfgang May and his colleague Mr Bernd Knoechelmann.

In the afternoon I visited the Dräger forum which had interactive exhibits outlining and highlighting the numerous areas in which Dräger provides services to the wider industry (e.g. fire fighters and military). Safety is only one aspect, with significant support also provided to the medical industry. The tour finished with a movie which depicted how Dräger see themselves, in industry, as merely a supportive tool to ensure the safety of workers and the community.

All of a sudden I found myself back in Sydney, with some amazing memories to last a lifetime. The trip surpassed all of my expectations and has no doubt reinforced why I work as an Occupational Hygienist.

I'd like to personally thank the AIOH for their ongoing support in the professional development of young hygienists. Without providing great opportunities, such as this award, I do not believe we would be moving forward in the ways that we are. I'd also like to sincerely thank, Dräger Safety Pacific for their ongoing financial support of this invaluable award. And finally I'd like to personally thank Dr Wolfgang May, for all his guidance and support he gave me during this trip and for all that he has done for the AIOH over the past 20+ years.



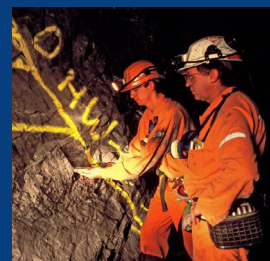
Health & Safety Laboratory respirator testing equipment

editor's note

SEPTEMBER EDITION • JANINE MCCLEMENTS & ROBERT SUTHERLAND

Janine and Robert wish to thank contributors to the Newsletter.

Of note within this edition are articles from award winners. AIOH through its sponsors has a proud tradition of developing skills and knowledge. Consider an application for these awards. They will have a positive impact on your career.



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NEXT EDITION

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All copy should be sent to the AIOH Administration Manager via email at laura@aioh.org.au.

We look forward to your contributions.

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