

BEYOND EXPECTATIONS: CASELLA SUPPORTS ENGINEERING GIANT IN QUEST TO ELIMINATE ENVIRONMENTAL HAZARDS

The collective movement for solving issues surrounding work related ill health continues to gain momentum, highlighted in the UK's Health and Safety Executive (HSE) Help GB Work Well Scheme calling for "greater awareness of the harm, costs and preventability of the issue" which should "drive collective action to improve health outcomes".



In an effort to raise awareness of dangerous substances in the workplace, the European Agency for Safety and Health at Work (EU-OHSA) has recently launched a 'Healthy Workplaces Manage Dangerous Substances campaign' to promote a culture of risk prevention.

The campaign is intended to heighten awareness of risks linked to exposure, targeting workers with specific needs. Each year in the UK, there are 12,000 lung disease deaths estimated to be linked to previous exposures at work. A 2017 HSE report highlighted 18,000 annual incidences of self-reported work-related breathing or lung problems in the previous 3 year period up from the 10,000 per year actually estimated. Although the HSE statistics show that work related deafness incidents have generally gone down since 2008, 20,000 people a year still suffer with work-related hearing problems.

Leading the Way

BAM Ritchies prides itself on being one of the first geotechnical contractors to carry out extensive hygiene monitoring of its workplaces. The company is a division of BAM Nuttall, a £60 million business with 400 employees throughout the UK providing ground engineering services for government, local authority, utilities and public/private companies.

Mark Sherwood has been an occupational hygienist at the company for 3 years, responsible for dust, noise fumes and vibration monitoring nationally for BAM Ritchies as well as supporting BAM Nuttall. A typical day includes a range of dust assessments, from wood, welding fumes, quarry dust, and respirable crystalline silica. He undertakes personal exposure monitoring across the workforce to control exposure levels and where necessary, provides recommendations with preventative health measures to control any hazards from dust, noise and vibration. Options such as elimination, substitution and engineering

controls are explored, or Personal Protective Equipment/ Respiratory Protective Equipment (PPE/RPE) is recommended from the accurate exposure measurements.

When Mark first started as an occupational hygienist, the workers were curious, asking questions about the equipment, and the reason for it being used. Individuals were interested to learn the results from the monitoring equipment and what the data meant. To ensure Mark was able to establish accurate measurements for dust, noise and vibration exposure, working closely with regulatory limits, he used Casella's equipment, and still does today.

To adhere to compliance with EH40 2005 workplace exposure limits (WELS), parallel to the Indicative Occupational Exposure Limit Values (IOELV) EU regulation, Mark uses 8 Casella lightweight, rugged bodily worn Apex2 personal air sampling pumps to monitor contaminants that may pose a health risk, including hazardous dusts like silica in quarrying or fumes during welding or dust created during evacuation. Noise exposure is measured with the 620 Sound Level Meter and a Noise kit which includes 6 dBadge2 dosimeters for noise at work applications, recording the audio of noisy operations, storing noise dose and performing octave band analysis, as well as general environmental measurement. This ensures regulatory compliance and encourages improvement initiatives to protect worker hearing. This thorough method ensures exposure levels are assessed with the wireless capability via Casella's Airwave app meaning monitoring does not need to disturb worker operations and data can be transmitted for assessment and alerting purposes direct to inboxes of nominated personnel.

In Safe Hands

BAM Ritchies prioritises protecting their people. Mark had previously used Casella's HAVex meter to measure the vibration levels of the tools employers were using to ensure they weren't over exposed to hand arm vibration during their daily routine. However, a proactive initiative by senior management has since removed vibration tools and the need for monitoring. In the event of there being no alternative method, a request to use a vibration tool requires a Permit to Work system authorised by the appropriate/nominated person.

There are instances where Casella's noise and dust monitoring equipment has resulted in positive changes across sites around the country. This has included an additional dust extraction system at a material testing laboratory in Scotland to further eliminate risk of substance exposure. Results from noise monitoring at quarries fortified the introduction of higher attenuating hearing protection to ensure workers have the upmost protection, as a precautionary method rather than an essential one. Other sites have also decided to upgrade RPE with the same sentiment of protecting workers as much as possible with the current and future exposure levels being carefully considered.

Through Casella's equipment, Mark is also able combat one of his biggest issues - time. He praises the equipment for providing information that a hygienist is able to interpret and feedback to management in a summary/reporting format. "My work involves me travelling around the country to ensure I meet as many employees as possible and that their working environment does not impact their long term health. Casella's equipment enables me to work quickly and efficiently, with the confidence that all appropriate data is being accurately captured."

The very nature of how Mark's role is perceived by staff has also completely shifted. Now, individuals instantly understand the value behind what Mark is doing, knowing how the equipment works and the role it plays in protecting them from potential hazards. "I make it a priority to understand different working patterns and movements in a working day so that my role can slot neatly into this. Workers appreciate this as it's clear their time and tasks are being valued".

Bam Ritchies prides itself on being a company that achieves extraordinary things, pushing boundaries and providing ground engineering solutions that bring engineering to life. Without a healthy workforce this vision cannot be realised. "Casella site monitoring equipment is a crucial part of my everyday kit that I carry everywhere, without fail" said Mark. The company is an industry leader for its effort to monitor and protect its workforce, and this process has now come full circle, with the workers completely in tune with the benefits and process, collectively working towards a healthy working environment.

Tim Turney is Technical Product Manager at Casella and graduated as an engineer from Queen Mary and Westfield in London. Since starting at Casella in 1998, he has been involved in the acoustics and air sampling industry, specialising in measurement and instrumentation technologies.

Author Contact Details

Tim Turney, Technical Product Manager at Casella

- Regent House, Wolseley Road, Kempston, Bedford, MK42 7JY UK • Tel: +44 (0)1234 844100
- Email: info@casellasolutions.com • Web: www.casellasolutions.com